

AUDIT QUALITY ATTRIBUTES AND FINANCIAL REPORTING CREDIBILITY NEXUS: FURTHER EVIDENCE FROM NIGERIA

OTUYA SUNDAY

Edwin Clark University, Kiagbodo, Delta State, Nigeria
otuya.sunday@gmail.com

IKHU-OMOREGBE GODSTIME OSAROBO

Faculty of Management Sciences, University of Benin, Nigeria
godstime.ikhuomoregbe@uniben.edu

Abstract

Organization's financial statements are a vital tool for evaluating operational performance as well as for providing interested parties and the business community with the ability to evaluate an establishment's profitability and continued viability. The necessity of credible financial reports devoid of falsification has dominated much of the conversation in accounting and finance literature due to financial scandals and the failure of several massive global corporations in the past decades. Against this backdrop, this study investigated the effect of audit quality on financial reporting credibility of oil and gas firms listed on the Nigerian Exchange Group (NGX). The study anchored on the agency theory, adopted the ex post facto research design. The population of the study consisted of all nine oil and gas firms listed on the Nigeria Exchange Group as at 31 December 2022. Data were collected from the nine listed oil and gas firms over the period of 2013 to 2022. The study employed panel data analysis using fixed effects and random effects model. The findings found that audit fees and audit firm tenure have a significant positive effect on financial reporting credibility, suggesting that higher auditor remunerations and longer audit tenure favorably impacted financial reporting credibility. Findings further indicated that audit firm size has a positive but insignificant effect on credibility of financial reports while the relationship between audit firm rotation and financial reporting credibility was negative but not significant. Control variables of firm growth and leverage demonstrated a statistically insignificant positive association with credibility of financial reports, suggesting that bigger firms and higher debt levels may encourage accounts manipulations. The study therefore concluded that audit quality measures significantly impact the level of credibility of financial reporting of firms listed in the oil and gas sector. The study recommended amongst others, that audit fees should be based on the volume of audit assignment to maintain and promote the independence of the auditing firms.

Keywords: Audit Quality, Audit Rotation, Audit Firm Size, Audit Fee, Audit Tenure, Financial Reporting Credibility.

JEL Classification: L11, M4, M41, M42

1. INTRODUCTION

One of the major challenges facing the accounting profession is the credibility of audited financial statements certified by independent external auditors. Independent external auditors are supposed to address information asymmetry and agency issues through efficient and effective execution of their audit assignment, by producing credible and high-quality reports, as well as the sanctity of financial statements and the confidence of stakeholders. This role of the auditors is imperative because corporate financial statements are a vital tool for evaluating operational performance as well as for providing interested parties and the business community with the ability to evaluate an establishment's profitability and continued viability. DeAngelo (1981) buttressed this by stating that audited financial reports are prepared to provide useful information in making business and economic decisions.

To guarantee adherence to regulations and raise standards, the Federal Government of Nigeria passed the Financial Reporting Council Act (2011) to authorize and enforce the nation's financial reporting, auditing, accounting, and corporate governance standards (FRCN, 2011). Additionally, the International Accounting Standard Board (IASB, 2018) developed accounting standards aimed at providing high-quality embedded financial information about reporting entities that is helpful in decision-making. This is being done in order to guide capital providers and other interest groups in making prudent investments and other related economic and financing decisions to deepen overall market efficiency. More so, the Investment and Securities Act (2021) made amendments with respect to financial reporting quality in a bid to ensure reliance on the reports issued to investors by the Nigerian Exchange Group Limited.

A variety of factors affect the quality of audit services, such as the auditors' background, size, independence, and industry knowledge; the price of audit services; joint audits; and audit firm retention, to name a few. For instance, the issue of audit firm size, which has often been measured by whether the auditing firm is from the Big 4 (Ernst and Yong, Deloitte, PWC, KPMG) or non-Big 4, has exhibited an unclear picture in the literature relating to how it affects the credibility of financial reports. Chen et al. (2021) posited that the big audit firms usually have more to lose, such as reputation, even though they have higher technologies and better financial and human resources. Therefore, it is thought that their reputation and economies of scale account for the strong audit and financial reporting quality that sets them apart from non-Big4 audit firms.

Also, the length of time that the audit firm keeps auditing the same company and issuing audit reports can also potentially influence the credibility of audit reports. According to Ibikunle and Ugwu (2023), there is a positive correlation between the

length of time that passes between the auditing firm and the client and the quality of the auditor's competency. This is because the auditor gains more knowledge about the business environment of their clients, leading to higher-quality financial reporting and audits. Another factor which has provided unclear picture in the literature regarding financial reporting credibility is audit fees. Not only does the audit fee, according to Liu (2017), affect the financial reporting quality, but also the establishment of the audit industry and accounting firms. It is therefore contended that audit fees remain as a critical factor and research focus. Similarly, arguments about audit firm rotation as a factor that could influence the quality of financial reports are diverse and varied in the literature. Imafidon et al. (2023) opined that mandatory audit rotation would prevent auditors from becoming too close with managers, impacting on their independence and quality. Mandatory rotation is said to lessen the threat of familiarity, increase skepticism, and offer a new perspective that may be absent from long-term client relationships. According to Onwuchekwa et al. (2012), an auditor may rely heavily on a client for income, so he or she may be hesitant to put this revenue stream in jeopardy since he or she does not want to bite the hand that feeds them. Long audit tenure is also argued to increase the familiarity thereat and consequently reduce financial reporting credibility.

Examining these variables that may contribute to raising the credibility of financial reporting is now essential, especially in the manufacturing industry, which is one of the main pillars of the Nigerian economy. The manufacturing sector of the Nigerian economy has been one of the attractive destinations of foreign direct and local investments due to the high stakes and returns on its shares. According to Mgbame et al. (2020), the Nigeria's manufacturing sector has often presented promising returns for investors and well positioned to play a vital role in economic growth and job creation. Etale et al. (2021) further stated that investors see this sector as one of the most lucrative investment destinations but however expressed a cautious optimism about the sectors companies' governance procedures and compliance with financial reporting quality. Against this background, this study therefore observes this gap and examined the perception of financial reporting credibility in evaluating the problem.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. FINANCIAL REPORTING CREDIBILITY

A financial report is a common summary of the financial activities of a company, individual, or other entity that includes all pertinent financial data organized and easily comprehensible. It functions as a communication channel for multiple parties to use in making decisions (Olowokure, 2016; Teguh, & Zaenal, 2020). The third and final step of the accounting process is reporting, which gives a variety of stakeholders the chance to make informed decisions about investing, controlling, and regulations by providing high-quality financial reporting

information about the reporting entity credibility. The quality of financial reports determines their value because it is a necessary component of financial reports.

Financial reporting is concerned with the presentation of financial statements in a form for comprehension by users of financial information. It serves as a means of identifying stewardship and is fundamentally a financial information communication method. In a different context, financial reporting serves as a channel for disseminating details about the financial operations of for-profit and nonprofit organizations. It is a significant and unique function that the accounting profession provides to societies with varying economic and social structures (Otuya, 2019). Financial reporting credibility refers to the trustworthiness and reliability of the information presented in a company's financial reports. Credible financial reporting is essential for investors, creditors, and other stakeholders to make informed decisions.

2.2 AUDIT QUALITY

Audit quality practices are guidelines established by auditors to ensure that financial reports provide relevant and accurate information to the public and other stakeholders in the company. Depending on their size, the nature of their work, and the relevant laws, these procedures differ from one audit organization to the next (Ugbah, 2024). Divergent views on the proper concept of audit quality have been documented in the literature. According to Saleh and Azary (2008), an audit's quality is determined by its ability to identify and disclose serious misstatements, lessen information asymmetry between management and investors, and support the protection of investors' interests. Audit quality is essentially determined by adherence to professional auditing standards, even though higher audit quality is assumed to provide more certainty of excellent financial reporting quality (DeFond & Zhang, 2014).

2.2.1. AUDIT QUALITY MEASURES

Many audit quality metrics have been proposed by academics, however none of them is definitive. Five theoretical constructs were established by Giroux and Jones (2011) as a means of evaluating the quality of audits: the type of auditor, the audit experience (industry and specialization), the audit fee, the audit file, and the type of local government. Other metrics of audit quality include the rotation of audit firms and the quality of client earnings. Jiang et al. (2024) have adopted the following factors as indicators of audit quality: industry specialism, company size, credentials and proficiency of the auditor, independence, independence, and reputation of the auditor. As elusive as goodwill, the idea mostly rests on the creativity of financial industry authorities, academics, analysts, and investors.

This research measures audit quality using audit fees, audit firm size, audit rotation, and audit tenure. These concepts are discussed in the preceding paragraphs.

2.2.1.1. AUDIT FEE

The money given to auditors for their services is known as audit fees. The overall cost of professional services provided by an independent registered accounting firm for the examination of comparative interim financial statements and the audit of yearly financial statements is known as audit fees. Previous research has supported the use of audit fees as proxies for audit quality (Dewi & Iskandar, 2024; Hoitash et al., 2007; Otuya, 2019). Adeyemi et al. (2012) state that when audit fees are high, the likelihood of the auditor losing their independence usually increases. Low audit fees may put pressure on audit firms by capping the compensation available to audit staff.

According to Onaolapo et al. (2017), the complexity of services, assignment risk, the public accounting firm's pricing structure, the necessary level of knowledge, and other professional factors can all affect how much the audit fee is. According to Borhan et al. (2020), the audit fee is determined by the audit firm's attributes (such as size, reputation, expertise, competition, industry specialization, and whether it is a big four) or the audit client's corporate attributes (such as size, complexity, risk, and profitability).

2.2.1.2. AUDIT FIRM SIZE

Numerous aspects can be inferred from the size of audit firms. Reputation, global reach, and honesty are considered to be indicated by the audit firms' magnitude and are all reflected in the audit report on their clients' accounts. Subsequent empirical research supports DeAngelo's (1981) claim that Big4 auditors produce higher-quality audits than non-Big4 auditors. According to Choi et al. (2010), the size of the audit office is a key factor in determining the quality of the audit. Because of their financial resources, research facilities, technology, and potential to attract skilled workers, major audit companies are able to maintain a larger clientele and withstand managerial pressure.

This, when combined with their ability to attract talent, lowers their overall dependency level on a single or group of clients. This is not the case for smaller audit (often referred to as non-big 4) firms whose focus is to offer more individualized services due to their smaller client bases which may compel them to give in to management demands where situations abound (Chen et al., 2021).

2.2.1.3 AUDIT FIRM ROTATION

The apprehension relating to the rotation of accounting firms comes about due to the fact that if a corporate organization and the firm that carries out its audit have been enjoying a proximal association for an elongated period, which is capable of leading to the audit firm or auditors recognizing with their client's organization the detrimental result of unconventionality (Grey & Manson, 2008), This view has led to proposals that auditing should be replaced, with the added advantage that this would: (i) result in automatic checks of the work of the previous auditor; (ii) encourage audit innovation; and (iii) discourage complacency.

Mandatory rotation is viewed by its supporters as a safeguard against long-term audit-client relationships that could compromise independence and quality. It also has the potential to reduce audit failures, improve the quality of the financial statements, and make it easier for auditors to resist pressure from management. On the other side, opponents of mandatory rotation generally see this as more costly than beneficial, e.g., start-up costs for auditors and the costs of selecting and enlightening new auditors in the client's organization. An auditor is prevented from getting the true understanding of its client because of the limitation. They also mention that accountants believe that mandatory rotation is unnecessary since motivators for independence and objectivity come from the will to protect reputation and client revenues, i.e., from the audit industry itself.

2.2.1.4 AUDIT TENURE

The term "audit tenure" refers to the duration of the client-auditor relationship. Extended durations between auditors and clients may compromise the auditor's objectivity as the parties' familiarity and personal relationships may deepen, leading to the investigator becoming inattentive. Aside from the threat to independence, the audit appointment may become normal over time, and if this occurs, the auditor will spend less time detecting internal control flaws and risk sources (Capkun et al., 2016).

Long audit tenures create a familiarity between auditors and their clients that fosters a lack of auditor independence. Fraudulent financial reporting has also been connected to the length of tenure of audit firms. Long-term audit relationships can either negatively affect the auditors' conditions of work exercise or negatively improve their independence. However, an audit firm's tenure, which is the length of time it has been filling the audit needs of a given client, has been mentioned as having an influence on the risk of losing an auditor's independence (Adeyemi & Okpala, 2011).

2.3 EMPIRICAL REVIEW OF AUDIT QUALITY ATTRIBUTES AND FINANCIAL REPORTING CREDIBILITY

Empirical results around prior research about the relationship between audit quality attributes and financial reporting credibility are frequently completely at odds with one another. For instance, Ugbah (2024) looked on the relationship between audit firm features and Nigerian listed insurance companies' earnings management. Examined are audit fees, auditor experience, audit quality, and auditor changeover as aspects of audit firms. The findings demonstrated a negative relationship between audit fees, auditor experience, and auditor switching and earnings management. The factors influencing audit quality are examined in a different study by Dewi and Iskandar (2024), specifically in relation to non-cyclical consumer sector companies listed on the Indonesia Stock Exchange between 2020 and 2022. According to their research, audit quality is unaffected by audit tenure, audit fees, and auditor reputation. Furthermore, the audit committee has little control over how reputation,

audit tenure, or audit fees affect the quality of the audit. Richer U.S. partners conduct higher-quality audits, as shown by fewer major restatements, fewer material SEC comment letters, and higher audit fees, according to a different study by Jiang et al. (2024) that used the market valuations of audit partners' homes as a gauge of their personal wealth. The results of a series of falsification tests demonstrated that the pairing of wealthier partners with clients who had better quality financial reporting was not the reason behind these findings.

In their study, Hung et al. (2024) examined the relationship between auditor industry specialization (AIS) and managers' income smoothing behavior in Chinese listed businesses. They discovered a negative correlation between the two. The study also shown, in line with the distinctive features of the Chinese market, the substantial moderating influence of Big Four auditors on the relationship between client companies' income smoothing and accounting firms with the highest level of industry competence. The study conducted by Sinebe (2023) aimed to examine the correlation between audit attributes and audit report quality in Nigerian listed companies. Analysis was done on 51 nonfinancial companies that were registered on the Nigeria Stock Exchange between 2011 and 2020 using secondary data. The findings indicated that audit tenure positively impacted audit quality, but audit size, audit independence, and joint audits significantly negatively impacted the same. In addition, Imafidon et al. (2023) looked into how audit independence affected the caliber of the financial statements of commercial banks listed in Nigeria. From 2010 to 2021, a twelve-year span, the research was conducted. Although the financial statement quality of the institutions under investigation was not significantly impacted by auditor tenure, joint audit, or auditors' opinion, the regression analysis revealed that audit fees had a significant effect. In a different study, Baffa et al. (2023) evaluated the importance and worth of auditor tenure as well as the size of the audit business. It was discovered that audit company size and auditor tenure mattered to those who use accounting data.

Using data from Indonesia, one of the few nations that requires audit firm rotation in addition to audit partner rotation, Martani et al. (2021) examined the effects of audit rotation and tenure on audit quality. The findings indicate that the length of the auditor's tenure and the audit quality do not correlate in a statistically meaningful way. Altering audit companies rather than audit partners can also raise the audit quality in non-Big 4 firms.

3. METHODOLOGY

3.1 DESIGN AND DATA

The study involves the use of numerical data to find patterns, make predictions, test causal relationships, and generalize results hence the quantitative research design was adopted. The population of the study consisted of 58 listed manufacturing companies on the Nigeria Exchange Group (NGX) as of 31 December 2023. To allow for homogeneity of period scope and obtain a balanced panel data

for the research, some firms were filtered out based on certain criteria. The criteria for eligibility include that firms must be active, and posses the relevant data within the study period 2013 to 2023. Consequently, seventeen (17) companies did not meet these criteria hence were excluded from the study. The sample size of 41 companies for eleven years which gave 451 year end observations was used for the study.

3.2 THEORETICAL FRAMEWORK AND MODEL SPECIFICATION

In 1920, Professor Theodore Limperg developed the theory of inspired confidence. This theory goes into considerable detail regarding the expected social responsibility of independent auditors as well as possible means of ensuring that their engagement is in line with societal demands. "The demand for audit services is the direct consequence of the participation of outside stakeholders and, particularly, financial information users in the economy," claims Limperg's theory of inspired confidence. Because of this potential for bias in the information that management provides to stakeholders, an audit of this data is necessary to give investors the information they need to make an informed decision. Because society is interested in the effectiveness of the audit and the accountants' judgements, the role of the auditor is characterized as a secret one. How trustworthy the audit report is reflects the stakeholders' confidence in the auditors. In the event that trust is betrayed, the role becomes less important and risky.

Based on the theoretical literature and earlier empirical studies on audit quality attributes and financial reporting credibility, this study adapted the model specified by Ugbah (2024) which was modified for the purpose of establishing the relationship between the dependent variable and the linear combinations of several determining variables captured in the study. Succinctly, the econometric form of the model is expressed as follows:

$$FRCB_t = f(AUQ) \dots \dots \dots (i)$$

This can be stated in econometric form

$$FRCB_{it} = \beta_0 + \beta_1 AFEE_{it} + \beta_2 AFSZ_{it} + \beta_3 AROT_{it} + \beta_4 ATEN_{it} + \sum \beta_n CONTROLS_{it} + U_{it} \dots \dots \dots (ii)$$

Where: FRCB= Financial Reporting Credibility; AFEE = Audit Fee; AFSZ = Audit Firm Size

AROT = Audit Rotation; ATEN = Audit Tenure; CONTROLS = Control variable (Sales Growth); U = Error term; i = sampled firms (1,2, 3.....41); t = time dimension (1, 2, 3 ... 11); β_0 = Constant; β_1 , to β_4 = Coefficients of slope parameters

3.3 MEASUREMENT OF VARIABLES

Table 1: Operationalization of Variables

SN	Variable	Acronym	Measurement	Source	A Priori Expectation
1	Financial Reporting Credibility	FRCB	<p>Measured using the Jones (1995) Discretionary Accruals models. Thus the industry specific parameters of the Jones model are estimated as follows: $TACC_{it} / TA_{it-1} = \alpha_1 (1/TA_{it-1}) + \alpha_2 [(\Delta REV_{it})/TA_{it-1}] + \alpha_3 (PPE_{it} / TA_{it-1}) + \epsilon_{it}$(ii)</p> <p>Non-discretionary accruals are measured using the equation as follows: $NDACC_{it} = \alpha_1 (1/TA_{it-1}) + \alpha_2 [(\Delta REV_{it} - \Delta REC_{it})/TA_{it-1}] + \alpha_3 (PPE_{it} / TA_{it-1})$ (iii)</p> <p>The Difference between total accruals and the non-discretionary components of accruals is considered as discretionary accruals as stated in equation as follows: $DACC_{it} = TACC_{it} - NDACC_{it}$(iv)</p> <p>TACC = Total Accruals; NI = Net Income before Extraordinary Items; OCF = Operating Cash Flows; TA-1 = Previous year's total assets; ΔREV = Change in Operating Revenues; PPE = Gross Property, Plant and Equipment; NDACC = Non-discretionary Accruals; ΔREC = Change in Net Receivables; DACC = Discretionary Accruals; $\alpha_1 - \alpha_3$ = Regression Parameters and ϵ = error term.</p>	Otuya,(2019) Willekens et al. (2023)	+
2	Audit Fee	AFEE	measured using Natural Log of the Audit Fees Paid by the company	Otuya (2019) Mesbah and Ramadam (2022)	+
3	Audit Firm Size	AFSZ	Measured as 1 if company is audited by Big 4, and 0 if Non-big 4	Mesbah and Ramadam (2022)	+
4	Audit Firm Rotation	AROT	Assign 1 if Audit firm was switched between the last three years otherwise 0	Fossung and Verges (2022)	+
5	Audit Tenure	ATEN	Length of auditor-client relationship: "1" if 3 years and above and "0" if otherwise	Baffa et al. (2023) Mesbah and Ramadam (2022)	+
6	Growth	GRWT	Turnover of current year less turnover of previous year scaled by turnover of previous year	Imafidon et al. (2023)	+

Source: Researcher's compilation, 2024

4. ESTIMATION RESULTS AND DISCUSSION OF FINDINGS

4.1. PRELIMINARY ANALYSIS

4.1.1 DESCRIPTIVE ANALYSIS

This sub-section discusses the descriptive and correlation statistics of the data generated on the dependent and explanatory variables of the study.

Table 2: *Descriptive Analysis of all Variables of the Study*

Variable	Obs	Mean	Std. Dev.	Min	Max
FRCB	85	2.23E-18	0.016743	-0.0244754	0.096157
AFEE	85	4.894041	0.85489	3.979776	7.110792
AFSZ	83	0.6626506	0.475679	0	1
AROT	85	0.4235294	0.49705	0	1
ATEN	82	7.76E-01	0.20654	0	1
GRWT	85	-1.398752	11.11327	-101.3886	1

Source: own elaboration from analysis of financial statements

The descriptive analysis of the data in relation to the study variables is shown in Table 2. As can be seen, the mean value of financial reporting credibility (FRCB) over the period under study was 2.23. The FRCB has a maximum value of 0.0961 and a minimum value of -0.0244 during the ten-year period. The standard deviation, which measures the spread of the distribution, was 0.0167, indicating that there were no significant variances in the data set.

Likewise, over the period under investigation, the mean value of audit fee (AFEE) is 4.894. For the duration of the study, the highest and lowest audit fees paid were 7.11 and 3.97 respectively. This suggests that the sampled oil and gas firms had no big variations in terms of audit fee payment to the engaged external auditors. With a standard deviation of just 0.854, the distribution's spread was measured. This is extremely small when compared to the mean, indicating that there is no discernible deviation from the mean and that the distribution includes years with no appreciable changes in the audit fees paid by the sampled companies.

Furthermore, the descriptive statistics derived from the table on audit firm size (AFSZ) and audit firm rotation (AROT) indicate that, during the period under consideration (2013–2022), the sampled companies used an average of approximately 66 percent of the big four audit firms. Meanwhile, the average percentage of audit firm rotation (AROT) during the same period was 0.423 suggesting a 42 percent audit rotation implementation. There is a significant variation in audit firm size and audit firm rotation for the studied companies, as indicated by the standard deviations of 0.475 for AFSZ and 0.497 for audit firm rotation. The variable is validated by the engagement of more of the big 4 accounting firms as well as the changes in auditors by the sampled firms. Additionally, the Audit

Tenure (ATEN) has a mean value of 7.76 and a maximum and minimum of 1 and 0, respectively. The absence of sample percentage clustering around the sample mean, as indicated by the standard deviation of 0.206, results in a gap in the distribution.

In the case of the control variables, the result showed that on average firm growth (GRWT) was -1.398 with a standard deviation of 11.1 which is an indication that the level of growth among the sampled oil and gas firms varied significantly. The negative mean also showed that some of the oil and gas companies recorded downturn in sales.

4.1.2 CORRELATION ANALYSIS

This analysis examines the extent of the relationship between explanatory variables themselves to test the presence of multicollinearity.

Table 3: Correlation matrix containing all independent variables for the Model

	AFZE	AROT	ATEN	GRWT	AFEE
AFZE	1				
AROT	0.1974	1			
ATEN	-0.3742	-0.0838	1		
GRWT	-0.1017	0.076	-0.0003	1	
AFEE	-0.6077	-0.4341	0.3337	0.0055	1
VIF	1.83	1.31	1.21	1.02	2.1
Tolerance	0.546653	0.763668	0.82487	0.976929	0.475593

Source: Stata 14 output (2024)

The table 3 shows the relationship among the independent variables. The VIF and Tolerance value in Table 3 indicates that collinearity problem does not occur as no VIF is higher than 10 in the model while the tolerance of all the variables is higher than 0.2. According to Myers (1990), a value of VIF of above 10 and tolerance below 0.2 calls for serious worry regarding multicollinearity.

4.2 MODEL DIAGNOSTIC TESTS

To ensure the validity and reliability of the regression models, several diagnostic tests were conducted. These tests help assess the appropriateness of the model assumptions and guide the selection of suitable estimation methods. The diagnostic tests performed in this study are presented in table 4.

Table 4: Model Diagnostic Tests for the Model

Test	Results
Hausman	$X^2 = 9.88$ (p=0.195)
BPLM	$\text{Chibar}^2 = 1.79$ (p=0.093)
Heteroscedasticity	$X^2 = 2.25$ (p=0.133)
Serial Correlation	$F = 481.487$ (p=0.000)

Source: Stata 14 output (2024)

To decide whether fixed effects or random effects estimates is suitable for panel data models, the Hausman test was employed. As shown in Table 4.3, the Hausman test statistics ($X^2 = 9.88$) are negligible with $p > 0.05$, suggesting that the random effects estimator is adequate. This supports the null hypothesis of the Hausman test, which states that the random effects estimator is efficient and consistent.

Further, Breusch-Pagan Lagrange Multiplier (BPLM) Test is used to detect or determine the appropriateness of random effect for the estimation of the stated model. For the model in Table 4.3, the BPLM test statistics ($\text{Chibar}^2 = 1.79$ is not significant ($p = 0.093$), indicating the inappropriateness of random effects for the model estimation. From this result, the random effect is not appropriate enough hence the ordinary least square regression shall be adopted.

The existence or lack of heteroscedasticity in the regression residuals was determined using the heteroscedasticity test. The residuals' homoscedastic (constant variance) nature is the null hypothesis of the heteroscedasticity test. The heteroscedasticity test statistics ($X^2 = 2.25$ and is not significant; $p = 0.133$) for the models (Table 4.3) show that heteroscedasticity is not present.

The regression residuals' serial correlation was examined using the serial correlation test. In the serial correlation test, the existence of serial correlation is the null hypothesis.

The models in Table 4.3 exhibit a significant result for the serial correlation test statistics (F-statistics) of 481.487 with a p value of 0.000 ($p < 0.05$), suggesting the presence of serial correlation. This study use panel corrected standard effect (PCSE) to estimate the regression due to the existence of auto correlation or serial correlation.

4.3 PRESENTATION AND INTERPRETATION OF REGRESSION RESULTS

Table 5 displays the result of estimated coefficients, z-statistic, probability, coefficient of determination of the research modes.

Table 5: Overall result for the Research Model

Frc	Coef.	Panel-corrected Std. Err.	Z	P>z	[95% Conf.	Interval]
AFEE	0.0056675	0.0024662	2.3	0.022	0.000834	0.010501
AFZE	0.0042957	0.0044442	0.97	0.334	-0.00441	0.013006
AROT	-0.0038498	0.0041173	0.94	0.35	-0.01192	0.00422
ATEN	0.0183132	0.0072594	2.52	0.012	0.004085	0.032542
GRWT	0.0000318	0.0004384	0.07	0.942	-0.00083	0.000891
_CONS	-0.0363603	0.0157925	2.3	0.021	-0.06731	-0.00541

Model sig - 2.85 ($p < 0.05$); R Square - 22.38

The model for the study was estimated using PCSE because of the presence of Auto correlation or serial correlation ($F = 481.487$ ($p < 0.05$)). The results of the regression statistics are discussed thus:

First, regression estimates in the model demonstrate a positive correlation between ($\beta_1 AFEit = 0.0056675$, $p = 0.0022 < 0.05$). The implication of the result is that higher audit compensation may lead more audit efforts which will further enhance the credibility of financial reports. This result is consistent with prior studies such as Abdullahi et al (2020) who found higher auditors fees promotes higher audit quality. The study by Ibikunle and Ugwu (2023), and Liu (2017) however, recorded a negative impact of audit fees on financial reporting quality.

As regards auditing firm size, the study's conclusions showed a favorable but not statistically significant correlation between credibility of financial reporting and size of audit firms ($\beta_2 AFSZit = 0.0042957$, $p = 0.334$ $P > 0.05$). It follows that businesses with the big 4 auditing firms prepare and present more credible financial reports. Our presumption is met by this outcome. However, given that a number of high profile accounting scandals in the past decades have been handled by the big four auditing firms, prior reports such as Imafidon et al. (2023), Fossung and Verges (2022), and Ogbodo and Akabuogu (2018) disagree with this findings. The results is nevertheless consistent with Jide and Ugwu (2023) and Mesbah and Ramadan (2022) who found that the status of big auditing firms enhances the audit quality and by extension the credibility of financial reports.

With respect to audit firm rotation, findings of the study showed a negative but not statistically significant effect on credibility of financial reporting ($\beta_1 AROTit = -0.0038498$, $p = 0.35 > 0.05$). This result implies that changing of auditing companies within intervals does not necessarily promote the credibility and quality of financial reports. The finding did meets our a priori expectation as we based our argument on the independence hypothesis. The result is however consistent with Imafidon et al. (2023), and Onwuchekwa et al. (2012), who reported a negative influence of audit firm rotation on financial reporting quality. However, research conducted by previous studies such as Baffa et al. (2023), Oladejo et al. (2020), and Obaje and Ogirima (2023) using other sectors of the economy found that audit rotation has a positive influence on the quality of financial reporting which matched our a priori expectations.

Moreover, the results on the effect of audit tenure on credibility of financial reporting was seen to be positive and statistically significant ($\beta_3 ATENit = 0.0183132$, $p = 0.012$, $p < 0.05$). The implication is that audit firms with longer auditing tenure are more likely to produce reports with higher credibility in Nigeria's oil and gas firms. The result meets our a priori expectation as we anticipated that longer audit tenure will promote efficiency, understanding, and bond and industry experience knowledge for the auditing firms. Although prior studies such Mesbah and Ramadam (2022), and Ogaluzor and John (2019) conform to this finding.

However, Itoro and Daferighe (2019) found no significant impact of audit firm tenure and size on credibility of financial reports.

As regards the control variables, firm growth was discovered to have a positive effect on the credibility of financial reports. This implies that oil and gas firms experience growth in the positive direction will have more credible financial reports. Panji and Titik (2022) found that growth firms indulge more in earnings management practices.

5. CONCLUSION

The study therefore concludes that audit quality factors are a major determinant in influencing the financial reporting credibility of oil and gas firms listed on the NGX. Specifically, better and more efficient audit quality measures such as audit fees, audit firm size, and audit tenure have positive impact on financial reporting credibility of listed oil and gas companies in the NGX.

These findings align with the agency theory, which establishes a connection between shareholders and management, who supply the financial statements that auditing firms are tasked with auditing of prepared accounts of the company. This connection is crucial in guaranteeing the integrity and quality of financial reporting, as it ties managers and audit companies together. Thus, quality audit acts as the foundation of high-quality financial credibility by reducing the information gap between stakeholders and management. The findings of the study is further validated by the stakeholders theory which contend that in order to lower agency costs like earnings management, monitoring methods like highly qualified external auditors are essential for reducing information asymmetry between managers and shareholders.

Furthermore, in exchange for their investment in the business, these stakeholders want management to accept responsibility for the company. An audit of this information is necessary since management-provided information may be biased due to a potential conflict between management's interests and those of external stakeholders

In line with the conclusion of this study, the following recommendations are proffered: we recommend that Audit fees should be charged based on the volume of audit work and must be regulated by the accounting professional body so as to maintain and promote the independence of the auditing firms. longer audit tenures be encouraged in line with the efficiency and expertise hypothesis.

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