Zhongguo Kuangye Daxue Xuebao
Journal of China University of Mining and Technology

2024 | Vol 29 | Issue 4 | Page 333-343
Journal Homepage: https://zkdx.ch/
DOI: 10.1654/zkdx.2024.29.4-34

Effect of Audit Quality on Earnings Reporting Quality of Listed Oil and Gas Firms in Nigeria

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Abstract
The study investigates the effect of audit quality on earning quality reporting of listed oil and gas firms in Nigeria. The sample of eight (8) listed oil firms were made out of the population of eleven (11) oil and gas firms listed on the Nigerian Exchange Group (NXG) as at 31st December, 2022. Secondary source of data was used to obtain ten (10) year audited financial statements of the selected oil and gas companies quoted on the Nigeria stock exchange market. Correlation and ordinary least square regression statistical technique was used in analyzing the obtained data. The findings revealed that there is a significant relationship between audit quality and earnings quality reporting of the listed oil and gas firm in Nigeria. It was therefore recommended that the Board of Directors and shareholders should establish a policy to retain or increase fees payable to the external auditors including tenure extension to serve as motivational factor to the audit firms to ensure proper audit that will help to sustain the existing increasing of earnings quality reporting of the company. The shareholders could retain the size of their audit firms but clearly express concern on the quality of their earnings reporting for future improvement.

Keywords
Audit, Earning, Quality, Reporting, Nigeria

1. Introduction
1.1 Background to the Study
The study of earnings quality has gained tremendous attention due to its relevance to the investors and other users for decision-making. In an organization, earnings are essential area of consideration according to Adegbie, et al (2019) because it determines the firm's success and sustainability. Earnings represent the net profitof a company's operations and the amount on which corporate tax is charged. Earnings are utilized by the users according to accounting concept statement No. 1 of the Financial Accounting Standards Board (FASB) for different purposes, thus, its quality is considered to be high if it provides more information about the features of a firm's financial performance that is relevant to a specific decision made by a particular decision-maker.

Audit quality is the accurateness of information given by an auditor to an investor to make more accurate estimations of company value. Audit quality is indicated by financial reports that do not present the material misstatement. According to Yusuf (2020), investors required the external audit to provide external examination that will add to the reliability, objectivity, and soundness of financial reports, increase accountability, lessen any astute conduct of the board, and increase the proficiency and adequacy of internal controls, just as that of internal audit. It is believed by the investors that the external auditors increase the credibility of financial reports through their competency and independent review. Therefore, Krishnan (2003) indicated that by reporting earnings management, the auditors can improve earnings information value. Ruddock and Taylor (2006) contended that the value of financial reporting as well as earnings reporting is improved by showing credibility and liability when external auditors react to forceful manipulation of earnings.

Furthermore, the role of auditors could be classified into five: objectives, reporting lines, profession, and interactions with others Nwoye, et al (2021). This is important for the companies to achieve accountability, improve operations, and instill confidence among stakeholders. Therefore, the stakeholders need to gain assurance that the data being reported are properly measured and fairly presented. The auditors must raise their capability and independency level, use appropriate tools, and provide advisory services to fulfill each of their roles (Ahmad, et al., 2016). However, to enhance the auditors' independence in his opinion, especially if there is need to express reservations about management's accounting policies, is whittled down, the need emanated to have subcommittee of the board of directors: audit committee, comprising only of independent directors, be appointed to act as an arbiter between external auditors and management (Emmanuel & Emem, 2020). This is based on the assumption that the committee is more likely able to protect the best interest of the owners (shareholders) of the business organization.

1.2 Statement of the Problem

The issue of earnings quality reporting by firms has raised a global academic research interest due to high rate of earning manipulations by managers of companies. For instance, in the last era around the world, a series of corporate accounting scandals (such as Enron and WorldCom) were associated with a number of accounting manipulations (Beslic, et al.,2015). In similar vein, in Nigeria, according to Orbunde, et al. (2021) the operations of the oil and gas industry have been associated with allegations of scandalous financial practices under the watch of a big 4 audit firm that is expected to constrain such unscrupulous practice. Consequently, this will upsurge asymmetric information between outsiders and managers and obscure unmanaged economic performance of a firm, thus eroding the reliability and credibility trust of financial reports (Ascioglu, et al., 2012). In addition, manipulated earnings reporting will make the users of financial statements lose their confidence and trust to invest in the firm. Furthermore, the shareholders will lose reliability of the auditing and accounting business, bankruptcy, deprivation of the efficacy and effectiveness of corporate governance, gigantic financial fatalities of the firm, together with decline of efficiency of the financial markets and the economy as a whole (Collingwood, 2001 cited in Saleem, et al., 2019).

In spite of this several negative impacts of earnings manipulations on investors, consumers and the general economic elevated concerns about the reliability and credibility of financial reports and call to question about the role auditors plays by standing in position of independent assessors of management on behalf stakeholders with enhancing earnings quality reporting. Consequently, lots of empirical research has been undertaken to look at the effects of audit quality on earnings quality reporting by companies. However, most of these studies are foreign based presentation with conflicting and varied findings (Sumiadji, et al. 2019; Ahmad, et al. 2016; 2014; Piyawiboon, 2015; Bala, et al., 2022, Zuo and Guan, 2014). Few studies in Nigeria on this subject did not specifically focused on oil and gas producing sector of Nigeria economy (Ogungbade et al., 2021; Tyokoso, et al., 2016; Nawraiseh, 2016) It is against this backdrop that this study intends to address this gap by examining the effect of audit quality on earnings quality reporting of listed oil and gas firms in Nigeria.

1.3 Objectives of the Study

This study broadly aimed to investigate the effect of audit quality on earnings quality reporting of listed oil and gas industries in Nigeria. This study specifically examined:

i. The effect of audit fee on accrual component of listed oil and gas industries in Nigeria.
ii. The effect of audit size on accrual component of listed oil and gas industries in Nigeria.
iii. The extent to which audit tenure has affected accrual component of listed oil and gas industries in Nigeria.

1.4 Research Hypotheses

In line with the specific objectives stated above, this formulated hypotheses in null form as followed:

H_{01}: The effect of audit fee on accrual component of listed oil and gas industries in Nigeria is not significant.
H_{02}: The effect of audit size on accrual component of listed oil and gas industries in Nigeria is not significant.
H_{03}: The effect of audit tenure on accrual component of listed oil and gas industries in Nigeria is not significant.

2. Literatures Review

2.1 Conceptual Review

2.1.1 Earnings Quality Reporting

According to Ismail (2020), accounting literature provides several definitions for earnings quality. Also, Bedard, et al. (2010) cited in Salawu, et al (2018) define audit quality as an audit conducted in accordance with generally accepted auditing standards to provide reasonable assurance that audited annual financial statements and related disclosures are presented in accordance with generally accepted accounting principles and are not materially misstated whether due to errors or fraud. According to Sepe, et al (2012), earnings quality is defined as the ability of reported earnings to predict a company's future earnings. This means that for earnings to have high quality it must be used by investors to forecast the future financial activities that will result to their returns on investment. Earnings quality also refers to as financial reporting quality is the degree to which earnings reflect underlying economic effects. Salawu, et al. (2018) stated that audit quality is the assessment of whether audits have served both the shareholders and other stakeholder's interests through increasing the accountability of managements and reinforcing trust and confidence in financial reporting.

2.1.2 Audit Quality

Audit quality is defined by DeAngelo (1981) as the joint probability that, an auditor will both discover and report a breach in the client's accounting system. Further explanation was provided by Seyyed, et al (2012) that, audit quality could be a function of the auditor's ability to detect material misstatements and reporting the errors. Together with other similar definitions, they all emphasized on two of the most important aspects of audit quality, namely auditor ability or auditor effort, and auditor independence. Financial reporting credibility according to Watkins,et al. (2004) is partially reflected in the confidence of users in audited financial reports. Also, according to Levitt (2000) the perception of audit quality helps role in maintaining confidence in the integrity of financial report, hence the higher the perceived audit quality, the more credible the financial statements. Zehri and Shabou (2011) asserted that, high quality auditors are more likely to discover questionable accounting practices by clients and report material irregularities and misstatements compared with low quality auditors. According to Setyaningrum, et al. (2013), audit quality is extracted from the principal component analysis techniques and outcomes indicate three major factors such as education, experience and training.

These definitions implies that for an audit to be qualitative, the auditor must acquire the required degree and certificate for instance in the case of Nigeria, where the two professional accounting bodies, Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria (ANAN) carrying out series of examination on their member before they are fully granted full membership to practice. In addition, must also had experience and training either attach to a practicing audit firm or employ as a practicing accountant in any recognize organization.

2.1.3 Audit Fee

According to Yahaya and Onyabe (2022), audit fees refer to all reasonable costs incurred by corporations in order to pay audit firms. Hence, high audit fees are anticipated to attract high quality audit firms and by consequences, there would be improvement in audit quality leading to high earnings quality reporting. Importantly, audit fees generally differ based on the nature of engagement of the audit firm. Fees paid in respect of mandatory audit may not be a subject to be determined by contingencies or and provision of other services. Nevertheless, fees paid in connection with non-statutory audits may be a subject of several volatile factors.

2.1.4 Audit Size

Lopes (2018) argued that audit quality has a relationship between the manipulation of financial statement and accruals reduce when the auditor's firm is a large audit company. Furthermore, Zandi, et al. (2019) looked at the effect of audit quality on earning smoothen and the research argued that the Big 4 auditors are likelier to lessen earnings management. Also, Alzoubi (2016) argued that companies who hire Big 4 auditors have much less accrual components than companies that do not hire Big 4 auditors. Chen et al. (2006) also argued that the existence of Big 4 auditors is linked to less earnings manipulation in Taiwan. Contrary to these researchers, Knechel, et al. (2018) argued that the Big 4 auditors are well established in states with strong levels of civic collaboration thus will not lessen earnings management. Almarayeh, et al. (2020) confirmed this by providing that the Big 4 auditors had no significant influence in emerging economies and less regulated environments.

2.1.5 Audit Tenure

According to Okolie (2015), auditor tenure is defined in this study as the length of the auditor-client relationship. A long tenure audit firm to its client may constitute a threat to independence as personal ties and familiarity may develop between the parties, which may lead to less vigilance on the part of the auditor and even to an obliging attitude of the latter towards the top managers of the company. In other to avoid this threat to independence, the audit engagement may become routine over time, and if so, the auditor will devote less effort to identifying the weaknesses of internal control and risk sources (Okolie, 2015). Looking the role audit tenure plays in increasing earnings quality, Knapp (1991) established a connection between audit tenure and competence in increasing earnings quality. In a similar view, Myers, et al. (2003) observed that auditor tenure reduces abnormal accruals whether positive or negative.

2.2 Theoretical Review

The theories that served as the bedrock for this study are theory of inspired confidence and agency theory.

2.2.1 Agency Theory

The agency theory is defined by Jensen and Meckling (1976) as a contract under the relationship between principal (owners) and agent (manager), which one or more principals engage another person (agent) to perform some services on their behalf which involves delegating some decision-making authority to the agent. According to Anthony and Govindarajan (2005), the principal employs the agents to carry out business in the interest of principals, including delegation of authorization for decision making from principals to agents. The different interests between agent and principals are often leads to problems or conflicts that are referred to as the agency problem. The agency problem relates to the difficulties or problems in motivating the agent to work in the best interests of the principal, where the problem arises because of inefficiencies and incomplete information (Rankin,et al.,2012).

2.2.2 Theory of Inspired Confidence

According to Awa and Obinabo (2020),Limperg Institute in Netherlands developed theory of inspired confidence in 1985 and the theory states that the auditor, as a confidential agent, derives his broad function in society from the need for expert and independent examination as well as the need for an expert and independent judgment supported by the examinations. On the basis of this, the stakeholders expect the auditors to use ability and competency to serve the members of general public with a minimum rate of audit failures. To avoid risk of undetected material misstatements, the auditors must plan and perform their audit with appropriate and sufficient evidence. The audit report must be credible and free from every bias that will enable the stakeholders make decisions. The theory of inspired confidence is important because the duties and responsibilities of the auditors are a derivation from the confidence that are bestowed by the public on the success of the audit process and the assurance which the opinion of the accountant conveys.

2.2.3 Stakeholder Theory

Stakeholder theory has a deep root in the notion of resources management (Carroll, 1979; Freeman, 1984). Freeman's main argument is that executives are responsible for managing and coordinating the asterism of competitive and cooperative interests of various stakeholders. According to Donaldson and Preston (1995), the instrumental approach of stakeholder theory advocates for the formulation and implementation of processes that satisfy stakeholders because they control key resources and suggests that stakeholder satisfaction, in turn, will ensure the long-term survival and success of the firm. Therefore, stakeholder theory supports firm value maximization in which managers need to pay close attention to all the stakeholders that can affect firm value (Dewi, et al., 2018).

2.2.4 Signalling Theory

The theory which was proposed by Akerlof in 1970 discussed the issue of information asymmetry among the parties involved in a business transaction that led to adverse selection (Rahman, et al., 2013). According to Zhen, et al., (2005), signal theory based on earnings management was a financial communication tool. Signal theory is relevant to this study because creative accounting can be used to communicate activities to the owners. Spence (1976) identified three characteristics of the application of signal theory as related to creative accounting practice: communicativeness, in formativeness and performances.

2.3 Empirical Review

2.3.1Audit Quality and Earnings Quality Reporting

The effect of audit quality on earnings management in insurance companies in Nigeria was determined by Nwoye, et al. (2021) and the study specially considered accruals and performance measures of earning manipulations using insurance companies in Nigeria. In analyzing the data, the study adopted panel multiple regression to identify the possible effects of audit quality on earnings management of financial institutions in Nigeria. The findings revealed that the financial institutions audited by the Big 4 auditing firms ware associated with less accrual and performance earnings manipulation.

Furthermore, Lambe, et al. (2021) investigated the effect of audit firm attributes on earnings quality of listed consumer goods firms in Nigeria. Discretional accrual is the dependent variable with audit tenure is the independent variables and firm size as control variable. Data for the study were obtained from the audited annual report of the 15 sampled consumer goods firms for a period of 10 years covering 2011 to 2020. The study employed fixed effect model regressions as tool for analysis. The result shows that audit tenure has no significance effect on discretional accrual of the firms.

The interrelation between audit quality and earnings quality given different operational characteristics was examined by Ismail (2020) and the study covered a sample of 74 listed Egyptian firms during the period from 2011-2016 with the use of multivariate regression analysis. The results revealed that audit firm size is positively and significantly associated with earnings persistence but this was not true for predictability and smoothness. Moreover, evidence does not lend credence to the hypothesis predicting a positive association between market-to-book ratio and earnings quality proxies.

Udeh, et al. (2020) investigated the influence of attributes of audit quality on return on assets of selected quoted manufacturing firms in Nigeria from 2006 to 2016. Ordinary Least Square statistical method was the analytical tool. It was discovered that audit firm size had a positive and significant effect on return on assets of quoted manufacturing firms in Nigeria, among others. It was therefore, concluded that attributes of audit quality influence return on assets of quoted manufacturing firms in Nigeria.

Yusuf (2020) looked at the effect of audit quality on earnings management represented by accrual components of listed consumer goods companies in Nigeria for thirteen years from 2006-2018. An ex-post facto research design was adopted for the study. The dataset was analyzed using panel corrected standard error regression technique. The findings revealed that audit fees has a significant negative effect on earnings management, while audit firm size, audit tenure and joint audit all have a significant positive effect on earnings management.

The effect of audit quality on accruals earnings management in Nigerian listed firms was examined by Mustapha, et al. (2019) and the study used all the public listed firms in the main flow of the Nigerian Stock Exchange (NSE) as a population from the year 2012 until 2017. Sixty-three (63) selected companies were selected as a sample based on the filtration criteria approach and the multiple regression result revealed that audit quality was negatively and significantly related with accrual earnings management. The finding further indicates that any increases in the unit of audit fees will decrease the earnings management of the selected firms, hence supporting the agency theory.

Sumiadji, et al. (2019) tested the effect of audit quality on earnings quality and the study obtained 116 annual data of manufacturing companies listed in the Indonesia Stock Exchange within 2011-2014. The analysis techniques for this research involved an confirmatory factor analysis to form the earnings quality and multiple regression analysis to test the effect of the auditor size, audit tenure and audit specialization on earnings quality. The results of the analysis showed that earnings quality is formed by the attributes of persistence and predictability. Furthermore, the results showed that auditor size and audit tenure have effect on earning quality, while audit specialization do not.

The relationship between earnings manipulation and audit quality of Portuguese non-listed companies was examined by Lopes (2018) and the study used a sample of 4,723 companies spanning a period of 3 years from 2013 to 2015 was selected. Multiple regression technique was used to analyze the secondary data collected from financial statement of the sampled companies. The result revealed a significant negative relationship between audit quality and earnings manipulation.

The effect of joint and dual audits on earnings management practices was tested by Mandour, et al. (2018) and the study examined the effect of non-mandatory adoption of joint audit in decreasing earnings management practices through accrual and real activities contrasted with the adoption of a dual external audit approach. The study follows a quantitative approach to gather and analyze data from the Egyptian Stock Exchange during the period 2010-2014. 104 firm-year observations were tested in the sample. The findings of the investigation showed that there was a negative relationship between joint audit and accrual components

The association between audit quality and earnings management of quoted money deposit banks in Nigeria for a period of 10 years from 2005 – 2014 with a population of 15 deposit money banks out of which a sample of six banks was selected and examined by Jayeola, et al.(2017). The study adopted a longitudinal research design. The findings showed a significant positive association between joint audit, audit independence and earnings management, while a significant negative relationship exists between audit specialization and earnings management, also an insignificant negative association exists between audit tenure and earnings management.

The influence of audit quality on earnings management (proxy with accrual components) for the period of 5 years from 2006 to 2010 was examined by Nawraiseh (2016) and study adopted Ex post facto research design. Secondary data was collected from a sample of 13 commercial banks quoted on the Amman stock exchange (ASE). The data were analyzed using regression and the result showed that audit fees, audit tenure, and international big auditing firms have a substantial adverse effect on earnings management.

Tyokoso, et al. (2016) studied Audit quality and earnings management of listed oil advertising firms in Nigeria for 6 years from 2009-2014. The study adopted a correlational research design based on the positivist approach. The design of the study was composed of 10 oil and gas marketing firms and data were analyzed using regression techniques. The result showed that client importance, audit committee financial expertise, auditor industrial specialization, and audit firm size are positively related with earnings management, while auditor tenure is negatively associated with earnings management.

Ahmad, et al. (2016) explored earning management and audit quality of about 420 listed manufacturing companies listed on Indonesia Stock Exchange covering the period 2010 to 2013. The study applied a multiple regression analysis in estimating the relationship between the audit quality and earning management. As hypothesized in this study, the results showed that audit quality and earning management are negatively related, thus suggesting that increase in audit quality would lead to increase in earnings quality of the companies studied.

Aliyu, et al. (2015) looked at the influence of audit quality on earnings management of quoted deposit money banks in Nigeria for 8 years from 2006 to 2013 using secondary data and sample of 10 listed deposit money banks. The study used the ordinary least square method of data analysis and adopted a correlational research design. The findings revealed a significant negative impact of joint audit services and audit firm size on earnings management, while a positive relationship exists between auditor financial independence and earnings management.

Piyawiboon (2015) investigated the relationships between the Audit Quality and the Earnings Quality as well as between the Board Audit Committee and the Earning Quality of the listed firms in 4 industrial groups in the Stock Exchange of Thailand. The study analyzed the data with the used regression panel data. The results show that the auditor firm size has a negative correlation with the Accrual components.

Zuo and Guan (2014), on association of audit firm size and industry specialization on earnings management in China concludes that audit firm size is significantly negatively related to earnings management, especially for firms with income-increasing abnormal accruals. They supported the use of the big audit firms.

However, Alpaslan (2013) on big four auditors, audit quality and earnings management from Turkish stock market concluded that no significant difference between the accrual components of firms audited by big four and non-big four auditors. They reported that no difference in audit quality between big four and non-big four audit firms for restriction of earnings management in Turkey.

3. Methodology

3.1 Research Design

This study utilized historical data collected from one sector, that is oil and gas sector industries in Nigeria and examined the effect of audit quality on earnings quality reporting in Nigeria. Based on this, this study adopted longitudinal research design. Another reason for choosing this design is that it aimed at measuring the effect of one variable on another in which the variables are not altered by this study.

The population of this study consists of a total of eleven (11) oil and gas companies listed on the Nigerian Exchange Group (NXG) as at 31st December, 2022. This study adopted a judgmental sampling technique to select eight (8) listed oil and gas firms in Nigeria with complete data and audited account between 2013 and 2022. This study utilised secondary source of data collated from the audited annual reports and accounts of the selected sampled firms between the period 2013 and 2022.

3.2 Model Specification

This study adapted DeAngelo (1981) model, using Accrual Component (AC) of earnings. In as much as earnings management and earnings quality is a two-sided coin, according to Hamdan (2020), this model compares the components of earnings in one year to the accruals of the previous year as an estimation of normal accruals.

The basic model:

$$AC_{it} = NPAT_{it} - CFO_{it} \text{ ---3.1}$$

Where:

AC_{it} = the accrual components or accrual component of earnings in year t for firm i representing the earning quality;
$NPAT_{it}$ =net operating profit after interest and tax in year t for firm i;
CFO_{it} = cash flow from operating activities in year t for firm i.

The study employed a modified model which is in line with prior studies (Araoye, 2019). The model is stated as follows:

$$AC_{it} = \beta_{0it} + \beta_1 AF_{it} + \beta_2 AS_{it} + \beta_3 AT_{it} + e_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots3.2$$

Where:

AC = Accrual Component representing earnings reporting quality.
AF = Audit Fees.
AS = Audit Size.
AT = Audit Tenure.
β_0 = Constants
$\beta_1, \beta_2, \beta_3$, = Regression Coefficients
e = error term

3.3 Measurement of Variables

Table 3.1 Measurement of Variables

Variable	Proxy	Variable Type	Measurement of Variable	Source
Earnings Reporting Quality	Accrual component (AC)	Dependent Variable	This is measured as the difference between the change in net operating profit after interest and tax and the change in cash flow from operating activities from year t-1 (the previous year) to year t (the current year).	Hamdan (2020)
Audit Quality	Audit Size (AS)	Independent Variable	This is measured by dummy variable, equal to 1 if the company is audited by Big-4 auditors, 0 otherwise.	Nwoye, et al (2020).
	Audit Fees (AF)	Independent Variable	This is measured by log of total audit fee.	Chang et al., (2021).
	Audit Tenure (AT)	Independent Variable	This is measured by auditor-client relationship: '1' if 3 Years and '0' if otherwise.	Okolie (2014)

Source: Researcher's Compilation (2023).

3.4 Data Analysis Techniques

This study analysed data with descriptive statistics and this are presented in tables form. In addition, this study employed correlation and ordinary least square regression statistical technique which includes Pooled OLS estimate, Fixed Effect estimate, and the Random Effect estimate to test the significant effect of the variables.

3.5 A priori Expectation

Based on the literature reviewed, this study expected positive effect of audit quality on earnings quality reporting. Hence, the apriori expectation is represented thus: β1, β2, β3> 0.

4. Results and Discussion

4.1 Data Analysis

In this section, the descriptive statistic, correlation statistic and regression analyses are presented.

4.1.1 Descriptive Statistic

	AC	AS	AF	AT
Mean	0.0017	0.9000	3.6710	1.6750
Median	0.0100	1.0000	3.3300	2.0000
Maximum	0.2300	1.0000	5.2300	2.0000
Minimum	-0.4153	0.0000	2.5600	1.0000
Std. Dev.	0.0800	0.3019	0.7258	0.4713
Skewness	-2.0430	-2.6667	0.6114	-0.7473
Kurtosis	12.9578	8.1111	2.2970	1.5584
Jarque-Bera	386.181	181.893	6.6317	14.3727
Probability	0.0000	0.0000	0.0363	0.0008
Sum	-0.1353	72.0000	293.680	134.000
Sum Sq. Dev.	0.5051	7.2000	41.6201	17.5500
Obs.	80	80	80	80

Source: Researcher Compilation (2023)

Table 4.1 presented the descriptive statistics and it showed that the earnings quality reporting with accrual component of the listed oil and gas industries has a mean value of 0.0017, standard deviation of 0.0800, maximum and minimum values stood at 0.2300 and -0.4153 respectively indicating that some of the sampled companies reported low accrual component. The explanatory variables, audit quality proxy with audit fee of the listed oil and gas industries has a mean value of 3.6710, standard deviation of 0.7258, maximum and minimum values stood at 5.2300and 2.5600 respectively indicating that the fees paid to the external audits were not the same. Audit quality proxy with audit size of the listed oil and gas industries has a mean value of 0.9000, standard deviation of 0.3019, maximum and minimum values stood at 1.0000 and 0.0000 respectively indicating that some of the sampled companies employed the services of the big-4 audit firms while others are non-big-4 audit firms. Audit quality proxy with audit tenure size of the listed oil and gas industries has mean value of 1.6750, standard deviation of 0.4713, maximum and minimum values stood at 2.0000and 1.0000 respectively indicating that some of the sampled companies employed the services of the audit firms not more than two times.

4.1.2 Pearson Correlation Matrix

Table 4.2

Variables	AC	AS	AT	AF
AC	1	-0.06257	0.143682	-0.13063
AS	-0.06257	1	0.480384	0.096934
AT	0.143682	0.480384	1	-0.52815
AF	-0.13063	0.096934	-0.52815	1

Source: Researcher Compilation (2023)

From Table 4.2 presented the correlation result which indicated the correlation coefficients of the variables. For the association between audit quality and earnings quality reporting, the result of the association between audit fees and accrual component is negative with correlation coefficient of -0.13063 suggesting that an increase in the fees payable by the shareholders to the audit firms would lead to decrease in accrual component of the listed oil and gas industries in Nigeria. Similarly, the result of the association between audit size and accrual component is negative with correlation coefficient of -0.06257 suggesting that an increase in the number of audit size would lead to decrease in accrual component of the listed oil and gas industries in Nigeria. However, the result of the association between audit tenure and accrual component is positive with correlation coefficient of 0.143682 suggesting that an increase in the number times the sampled firms retained the audit firm would lead to increase in accrual component of the listed oil and gas industries in Nigeria.Lastly, the result showed that the correlation coefficient between the explanatory variables (AS, AF and AT) and the dependent variables (AC) are ranged between 0.5, 0.1 and 0 suggesting that there are no serial correlations between the independence variables. This corroborated with Peck, et al (2015) who stated that serial correlation existed between the variables when correlation values are between 1, 0.8 and 0.5.

4.1.3 Regression Result

Under this model, the study tested the effect of audit quality on earnings quality reporting. The result of the Pooled OLS, FE Model and RE Model is presented in Table 4.3 as followed:

Table 4.3 Dependent Variables: AC

S/No.	Series	Pooled OLS		Fixed Effect		Random Effect	
		Coefficient	Prob.Value	Coefficient	Prob. Value	Coefficient	Prob. Value
1	C	-0.02305	0.7864	0.145553	0.5774	-0.02305	0.7864
2	AS	-0.04231	0.2806	-0.17151	0.0912	-0.04231	0.0005**
3	AF	0.013525	0.5694	0.011333	0.7747	0.013525	0.0093**
4	AT	0.033898	0.2605	0.012664	0.0163**	0.033898	0.2604
5	R-squared	0.050112		0.139183		0.050112	
6	Adjusted R-squared	-0.00055		-6.7E-05		-0.00055	
7	S.E. of regression	0.079985		0.079966		0.079985	
8	Sum squared resid.	0.479824		0.434831			
9	Log likelihood	91.13942		95.07788			
10	F-statistic	0.989176		0.999517		0.989176	
11	Prob (F-statistic)	0.00080		0.00100		0.00037	
12	Durbin-Watson stat		1.890431		2.205749		1.890431
13	Hausman Test			6.821965	0.1456		

Source: Researcher's compilation (2023) using Eviews 9.0. (***Note:*** ** and * denote significant at 1% and 5% respectively).

Table 4.3 provided the result of Pooled OLS, FE model, RE models. The Random Effect model and result is interpreted as followed:

The RE model showed that the effect of audit fees (AF) on accrual component (AC) is positive and significant with coefficient value of 0.013525 and probability value of 0.0093 (i.e., P-Val. <1%). This suggests that an increase in the fees payable to the audit firm by the sampled companies would result to an increase in accrual component and the increase is significant at 1% level of significance. Also, the effect of audit size (AS) on accrual component (AC) is negative and significant with coefficient value of -0.04231 and probability value of 0.0005 (i.e., P-Val. <1%). This suggests that increase in the size of the audit firm would result to decrease in accrual component but the decrease is significant at 1% level of significance. Furthermore, the effect of audit tenure (AT) on accrual component (AC) is positive and insignificant with coefficient value of 0.033898 and probability value of 0.2604 (i.e., P-Val. >5%). This suggests that increase in the number of years the sampled companies retained the tenure of a particular audit firm would result to increase in accrual component and the increase is insignificant at 5% level of significance.

The F-statistics value for the RE is 0.989176 with a probability value of 0.00037 suggesting a significant linear relationship between the explanatory variables (AF, AS and AT) and dependent variable (AC). This suggested that the model specified in this study is appropriate specified because according to Mundfrom, et al (2018), when there is significant linear relationship between the dependent and explanatory variables, it means that the model is appropriate specified in the study.

Looking at the result of the Hausman Test (HT) in Table 4.3it suggested that the Random Effect (RE) should be accepted in interpreting this result. This is because, RE model is accepted under the assumption of probability value being greater than 0.05 (5%). Hence, Hausman Test showed a chi-square of 6.821965 with probability value of 0.1456 (i.e., P-Val. >5%).

The table also showed that R-square for the RE is 0.050112 suggesting that 5% of the systematic variation in dependent variable (accrual component) cannot be explained by other variables on the assumption that the study did not considered heterogeneity effect across the sampled companies.

4.2 Test of Hypotheses

4.2.1 Null Hypothesis One (H_{01}):

This null hypothesis stated that the effect of audit fee on accrual component of listed oil and gas industries in Nigeria is not significant.

The Random Effect Model in Table 4.3 showed that the effect of audit fees (AF) on accrual component (AC) is positive and significant with coefficient value of 0.013525 and probability value of 0.0093 (i.e., P-Val. <1%). The null hypothesis which states that the effect of audit fee on accrual component of listed oil and gas industries in Nigeria is not significant is therefore rejected. In addition, this result agreed with the a priori expectation of this study because audit size had positive effect on accrual component (AC).

4.2.1 Null Hypothesis Two (H_{02}):

This null hypothesis stated that the effect of audit size on accrual component of listed oil and gas industries in Nigeria is not significant.

The Random Effect Model in Table 4.3 suggested that the effect of audit size (AS) on accrual component (AC) is negative and significant with coefficient value of -0.04231 and probability value of 0.0005 (i.e., P-Val. <1%). The null hypothesis which states that the effect of audit size on accrual component of listed oil and gas industries in Nigeria is not significant is therefore rejected. In addition, this result disagreed with the a priori expectation of this study because it was predicted by this study that that audit size will have positive effect on accrual component.

4.2.3 Null Hypothesis Three (H_{03}):

This null hypothesis stated that the effect of audit tenure on accrual component of listed oil and gas industries in Nigeria is not significant.

The Random Effect Model in Table 4.3 suggested that the effect of audit tenure (AT) on accrual component (AC) is positive and insignificant with coefficient value of 0.033898 and probability value of 0.2604 (i.e., P-Val. >5%). The study therefore, accepts the null hypothesis which states that the effect of audit tenure on accrual component of listed oil and gas industries in Nigeria is not significant. Moreover, this result agreed with the apriori expectation of positive effect of audit tenure on accrual component.

4.3 Discussion of Findings

4.3.1 Audit Fees and Accrual Component

The first objective of this study examined the effect of audit fees on accrual component. The result obtained in the hypothesis formulated in this objective showed that the effect of audit fees (AF) on accrual component (AC) was positive and significant, thus implying that an increase in the fees payable to the audit firm by the sampled companies would result to significant increase in accrual component. This means that increase in the fees paid to the sampled companies' audit firm would significantly enhance earnings quality reporting. This finding agreed with the theory of inspired confidence and in line with the result obtained by the study of Emmanuel and Emem (2020) who reported from quoted manufacturing firms in Nigeria, that audit fees payable to external auditors had significant influence on the financial reporting quality of the companies. It however not in congruence with the study of Nwoye, et al. (2021) who reported that the increase in auditors' fee leads to choices of using accounting methods to manipulate both accrual and performance earnings.

4.3.2 Audit Size and Accrual Component

The second objective of this study examined the effect of audit size on accrual component. The result obtained in the hypothesis formulated in this objective showed thatthe effect of audit size (AS) on accrual component (AC) was negative and significant. This implies that increase in the size of the audit firm would result to significant decrease in accrual component.

This finding agreed with the theory of inspired confidence which stated that the auditor, as a confidential agent, derives his broad function in society from the need for expert and independent examination as well as the need for an expert and independent judgment supported by the examinations. Therefore, theory of inspired confidence and study of Bala, et al. (2022) in Nigeria who reported that audit size measured with the big-4 reduces the likelihood of income smoothing.

4.3.3 Audit Tenure and Accrual Component

The third objective of this study examined the effect of audit tenure on accrual component. The result obtained in the hypothesis formulated in this objective showed that the effect of audit tenure (AT) on accrual component (AC) was positive and insignificant. This result implies that increase in the number of years the sampled companies retained the tenure of a particular audit firm would result to increase in accrual component and the increase is insignificant.

This finding disagreed with the theory of inspired confidence which states that increase in audit tenure would significantly and positively enhance earnings quality reporting of the company.This finding also disagreed with the study of Bala, et al. (2022) in Nigeria who reported that audit tenure reduces the likelihood of income smoothing, thus increases earnings quality.

5. Summary and Recommendations

This study mainly investigates the effect of audit quality on earnings reporting quality of listed oil and gas industries in Nigeria and examined the effect of audit size, audit fees and audit tenure on accrual component. The study covers the period between 2013 and 2022 with secondary data collected from the annual reports and accounts of the listed oil and gas companies. The data obtained were analysed with Ordinary Least Square (OLS) regression statistical techniques and the summary of findings revealed a significant relationship between audit quality and earnings reporting quality of listed oil and gas firms in Nigeria. The result specifically shows a positive and significant effect of audit fee and tenure on earning reporting quality while there was negative but significant relationship between audit size and earning reporting quality of listed oil and gas businesses in Nigeria. It was therefore recommended that the Board of Directors and shareholders should establish a policy to retain or increase fees payable to the external auditors including tenure extension to serve as motivational factor to the audit firms to ensure proper audit that will help to sustain the existing increasing of earnings quality reporting of the company. The shareholders could retain the size of their audit firms but clearly express concern on the quality of their earnings reporting for future improvement.

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