

The Nexus Between Audit Quality And Performance Of Listed Oil And Gas Firms In Nigeria

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Abstract:

Purpose: The purpose of this research is to examine the nexus between audit quality and firm performance for listed oil and gas firms in Nigeria.

Design/methodology/approach: Based on the literature review, the study employed secondary source of data and the annual reports and accounts serving as the main source of data collection. Multivariate regression model was used as a method of data analysis for the data collected.

Findings: The study finds that there is insignificant relationship between audit quality proxies (audit fees, audit firm size, audit firm tenure, and audit timeliness) and Firm Value. Although, the study also found that audit quality proxies (audit fees, audit firm size, and audit timeliness) are significantly and positively related to Firm Value, a measure of audit quality (audit firm tenure) is found to be negatively related to Tobin's Q.

Originality/value: This paper is the first to report an empirically based model of performance of listed oil and gas firms in Nigeria.

Keywords: Audit fee, Audit firm size, Audit firm tenure, Audit timeliness, Firm value.

I. INTRODUCTION

Researches have shown that *audit quality* have gained increased demand especially as a result of the spectacular financial reporting scandals in major corporations, such as Enron, WorldCom and other companies. The aftermath of these scandals has led to the identification of a perceived "expectation gap" in the audit quality as majority of the users of audited financial statements differ in expectations of the audit function from what it actually delivers (Beattie, Brandt, & Fearnley, 1999). Thus, there has been a call for sweeping changes in the auditing profession to ensure improved audit quality (Auditing Profession, 2002). Like the experience of developed countries, in 1990s, Nigeria experienced corporate failure, which cuts across both public and private corporate entity. In fact, it has been singled out as the major reason for privatization in Nigeria, as companies, both public and private are bedeviled with corruption and mismanagement of resources (Mainoma, 2002).

Furthermore, the turbulent effects of the global financial crunch have highlighted the importance of credible high quality financial reporting. Evidently, achieving quality and credible financial reporting depends on the role that the external audit plays in strengthening the quality of financial reporting of listed companies (Farouk & Hassan, 2014). An independent quality audit breeds confidence in the credibility and integrity of financial statement which is a pre-requisite for well-functioning markets and enhanced firm value.

So far, researches in this area have come up with inconsistent results. This may be due to the use of performance measurement variables such as return on equity (ROE), return on capital employed (ROCE), and return on asset (ROA) to measure *firm performance* in this studies. To overcome the shortcomings, both ROA and Tobin's q are employed as performance measurement variables to examine the relationship between *audit quality* and *firm performance*, thus serving as the gap to be filled by the study. In addition,

the findings will be very helpful to regulators, professional accounting bodies and other stakeholders.

The remainder of the paper is structured as follows: the next section provides the literature review section while Section 3 discusses the theoretical background and hypotheses development section. Section 4 reviews the methodology of the study while Section 5 provides details of the findings. Section 6 discusses the results, and Section 7 concludes the paper.

II. LITERATURE REVIEW

The review of empirical studies has been done in the light of the following.

AUDIT FEES AND FIRM PERFORMANCE

According to O'Sullivan and Diacon (2002) more audit hours and more specialized audit personnel are needed for a more thorough investigation leading to higher audit fees. Hence, it is expected that higher audit fees indicate a higher quality audit, as more audit exercise is required to ensure that the financial reports are free from material misstatement. Hoitash, Markelevich, and Barragato (2007) investigated the link between audit fees and audit quality. Their findings show that fees paid to auditor can impact in a way; large fees paid to auditor increases quality of audit, which indicates a significant positive relationship between audit fees and audit quality. Bell, Doogar, and Solomon (2008) maintained that the risk-based approach of audit planning and subsequent pricing means that clients perceived by the auditor as risky are typically assigned more efforts, which in turn results in higher audit fees. Yuniarti (2011) examined strength of metrics that affect audit quality of 24 Bandung firms at 2009. He proffers that higher audit fees increase and improve audit quality due to auditors' effort, and accounting firm should enhance amount of audit fees that lead to higher audit quality. However, the study found that audit fees significantly and positively affect audit quality. Yassin and Nelson (2012) employed audit fee as indicator for audit quality. They proffered that, a higher audit fees means that auditors provide sufficient audit services to the companies compared to lower audit fees. Moutinho, Cerqueira, and Brandao (2012) examined the relation between audit fees and firm performance. The result shows that there is a negative relation between fees pay to auditors and firm performance. Accordingly, Nam (2011) in Farouk and Hassan (2014) investigated the relation between audit fees as an indicator for auditor independence and audit quality of firms. Using multiple regression models, the study found that abnormal audit fee change rate is negatively related with audit quality. In Nigeria, Semiu and Kehinde (2011) examined the perception of auditor independence in Nigeria; their results indicate that the size of audit fee is the most influencing factor capable of deterring auditor independence in Nigeria. Similarly, Semiu and Johnson (2012) found that audit and /or non-audit fees threaten auditors' independence in Nigeria when they investigated the effects of joint provision of audit and non-audit services on auditor independence, and find that

joint provision of non-audit services potentially impairs auditors' independence. In contrast, Umar (2012) investigates the stakeholders' perception of non-audit services provision via auditor independence in Nigeria during the period 2005 to 2010; the findings reveal that there are a number of threats to auditor independence and one of which is familiarity, which comes as a results of long-term audit firm-client relationship. Also, Martinez and Moraes (2014) investigated the linkage between fees pay to auditors and firm performance of Brazilian listed companies from 2009 to 2010. Using Tobin's q as a measure of firm performance, their results showed that there is a positive relationship between audit fees and firm value. In like manner, Farouk and Hassan (2014) examined the effect of audit quality and financial performance of listed cement firms in Nigeria. Using the correlational and ex-post facto designs, they employed multiple regression analysis to analyse the data. The findings show that auditor independence and auditor size have significant effects on the financial performance of the listed cement firms in Nigeria, with auditor independence having more influence than auditor size on financial performance. However, Sayyar, Basiruddin, Abdul Rasid, and Elhabib (2015) further investigated the impact of audit quality on firm performance in Malaysia; using multivariate regression analysis, the study found that there is insignificant link between audit quality variables (audit fees and audit firm rotation) and Return on Asset. Similarly, while audit fee is significantly and positively related to Tobin's Q ; audit firm rotation is insignificantly related to Tobin's Q .

AUDIT FIRM SIZE AND FIRM PERFORMANCE

Miettinen (2011) investigated the relation between audit quality and financial performance. Using auditor size and audit committee meeting frequency as proxies for audit quality, the result shows that audit quality has both a direct effect as well as a mediated effect through audit size on financial performance. This implies that measures of audit quality are not merely symbolic but that they contribute to firm performance. Bouaziz (2012) examined the relation between auditor size and firm performance on firms listed on the Tunis Stock Exchange. The result shows that auditor size has an important effect on the performance of firms in terms of return on assets and return on equity. Bae and Lee (2013), in their work "does audit firm size matter? The effect of audit firm size measured by audit firm revenue, number of offices and professional headcounts on audit quality and audit fees", found that audit firm size is positively related with audit quality proxied discretionary accruals and modified opinions. Also audit firm size is positively related with audit fees. Also, Cheng, Chen, and Chen (2013) investigated the direct and mediating effects of auditor quality on auditor size and performance; using path analysis, the results show that auditor size has direct effect on performance and indirect effect through auditor quality. Similarly, Chen, Hsu, Huang, and Yang (2013), examined the relationship between audit quality, audit firm size, and financial performance of firms. Using multiple regression analysis, the result shows that there is positive relation between audit firm size and audit quality. In the study conducted by Rezaei and Shabani (2014) on the effect of audit firm size and age on the quality of audit; using

regression analysis, the results found that an increase in age and size of audit firms causes a reduction in the use of accruals items, consequently, increases audit quality. Similarly, James and Izien (2014) investigated the consequence of audit firms' characteristics on audit quality in Nigeria on listed food and beverage companies in Nigeria. From the regression technique, the findings indicate that there is a positive relation between firm size, board independence and audit quality where as there is a negative relation between auditor's independence, audit firm size, audit tenure and audit quality.

AUDIT FIRM TENURE AND FIRM PERFORMANCE

Studies have indicated that audit firm tenure has a significant influence on audit quality. This effect was either positive or negative. In this regard, studies have shown that the longer the auditor tenure, the more dependence on clients (Dopuch, King, & Schwarts, 2001; Ebrahim, 2001). Dopuch, King, and Schwarts (2001) investigated whether mandatory audit rotation increase independence. Using multi - period interaction between a manager and auditor, the result found that the auditor compromises his independence most often in the no rotation period. Also, Carcello and Nagy (2004) explored the association of changing the auditor and audit quality from the point of view of fraudulent reporting. They found no significant relationship intended of the long-term tenure of the auditors. They maintained that mandatory changes of auditors might have a negative impact on audit quality. Similarly, Carey and Simnett (2006) explored the association between audit tenure and abnormal working capital accrual. Their results show that there is no evidence of an association of either the signed or absolute amount of abnormal working capital accruals with long audit partner tenure. In addition, Abedalgader, Ibrahim, and Baker (2010), investigated the contribution of audit tenure and firm size on audit quality by using discretionary accruals as proxy for audit quality against auditor's tenure and firm size in Jordan and found that auditor's tenure is negatively associated to audit quality. Onwuchekwa, Erah, and Izedonmi (2012) in their own study examined the linkage between audit rotation and audit independence. Using data from percentage analysis, the study found that the mandatory audit rotation has positive link on independence of auditors. However, Adeniyi and Mieseigha (2013) examined the nexus between audit partners tenure and audit quality. Their result showed that there is a negative nexus between auditor tenure and audit quality.

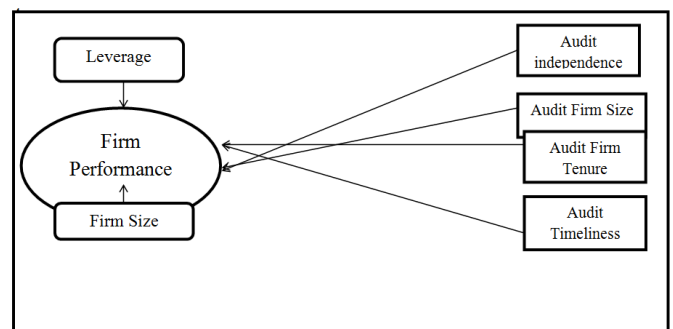
AUDIT TIMELINESS AND FIRM PERFORMANCE

Imam, Ahmed, and Khan (2001) centres on the association between audit timeliness and audit firms' international links as proxies for auditor quality. Using OLS, they found that auditor with international links take longer to complete than their unaffected peers. However, the findings show that audit timeliness has negative relation with performance. In the same vein, Almosa and Alabbas (2007) in Dabor and Mohammed (2015) explored the determinants of audit timeliness for listed joint stock companies in Saudi Arabia. The findings show that audit timeliness negatively

related with firm performance. Also, Kirshnan and Yang (2009) investigated recent trends in audit report and earnings disclosure lags on listed companies in USA. Using OLS regression method, the study found that the likelihood that companies disclose earnings before the audit report date increased considerably over the period of the study, particularly when Section 404 of the SOX was in effect. In like manner, Ahmed and Hossain (2010) examined the audit report lag on Bangladesh listed companies; using OLS regression, the results showed that type of auditor, financial company, profitability and company size significantly decreased the time taken to prepare audit report. On the other hand, type of audit report and leverage significantly increase the time taken to conclude the audit. Similarly, Turel (2010) conducted a study on the timeliness of financial reporting in emerging capital markets on listed companies in Turkey. Using OLS regression, the multivariate regression analysis indicates that income, audit opinion, auditor firm and industry affect timeliness. More so, McGee and Yuan (2011) compare the timeliness of financial reporting in Republic of China, USA and European Union (EU) on the basis of audit firm to determine whether companies audited by one of the Big 4 firms are timelier in their financial reporting. Using comparative analysis T-test, results indicate that Chinese companies took significantly longer time to report financial results than either the EU or US companies. EU companies took longer time to report financial results than US companies. Modugu, Eraghe, and Ikhatua (2012), in their study of determinants of audit delay in Nigeria. The results found that the panel data which employed Ordinary Least Square regression showed that the major determinants of audit delay in Nigeria include multi-nationality connections of companies, company size, and audit fees paid to auditors. Vuko and Cular (2014) examined the determinants of audit delay on Croatian listed companies. Using pooled OLS regression analysis, the results indicate that audit committee existence, profitability and leverage are statistically significant determinants of audit delay in Croatia.

III. THEORETICAL BACKGROUND

CONCEPTUAL MODEL



Source: Adapted from firm performance measurement model of Santos and Brito (2012)

Figure 1: Firm Performance Measurement Model

The conceptual model above is a model made of the composition of variables (dependent variables: Return on assets and Tobin's Q; independent variables: audit fees, audit firm size, audit firm tenure, and audit timeliness) which are meant to show the direction of the study. This measurement model is grounded in the stakeholder theory (Santos & Brito, 2012) adopted for this study.

CONCEPT OF AUDIT QUALITY

Audit quality differs in meanings by as found by researchers and institutions as given below. Audit quality is about offering an appropriate professional view supported by material evidence and objective judgments. To ensure audit quality, auditors must provide a quality service to shareholders if they provide audit reports that are independent, reliable and supported by sufficient audit evidence. Similarly, a quality audit entails appropriate and complete reporting by the auditors which enables the Audit Committee and Board properly to discharge their responsibilities (FRC, 2006). In like manner, according to Clinch, Stokes, and Zhu (2010), audit quality is a component of the quality of accounting information disclosed, as higher disclosure quality leads to lower information asymmetry between traders. According to Adeyemi, Okpala, and Dabor (2012), the International Audit and Assurance Standard Board (IAASB), defined an audit as an independent examination of, and expression of opinion on the financial statements of a firm by an appointed auditor in line with the terms of appointment and in compliance with the relevant statutory and performance requirements. The audit report is the end product of every audit assignment that the auditor issues to the members of a client company expressing his opinion on the truth and fairness view regarding an enterprise's financial statements. However, for the purpose of this study, audit quality is defined as an audit exercise that encompasses the relevance and reliability of the following variables, which are the audit firm size, audit timeliness, audit tenure, and audit fees.

PROXIES FOR MEASURING AUDIT QUALITY

Extant literature have shown that due to the lack of clear-cut legislation on audit quality, there has not been definite variables to measure audit quality; however, many studies test perceived audit quality due to the difficulty in measuring actual audit quality directly, thus attempt have being made by previous researchers to measure audit quality, among which are explained below. Moizer (1997) maintained that the appraisal of the indices of measuring the quality of the audit service is not without its challenges since audit quality is typically unobservable (Francis, 2004). Thus, according to Hay and Knechel (2010), auditing could be categorized as a type of credence good and hence auditors add credibility to corporate financial reports by expressing an opinion about the true and fair representation but only in so far as the users of financial statements perceive that opinion as valuable. Thus, Hardies, Breesh and Branson (2010); and Enofe, Nbgame, Okunega, and Ediae (2013) argued that audit quality is not simply a linear function of auditor competence and auditor independence, but also on the market's perception about the

value of the auditor's report which is the result of the perceived competence and the perceived independence of the auditor. Following this perspective, audit quality thus refers to the credibility of the audit opinion as a measurement for the level of confidence users place upon the information provided by the auditor.

FIRM PERFORMANCE

Over the years, academia has focused on explaining firm performance and on identifying the sources of inter-firm performance differences (Chang & Sigh, 2000). A firm's financial performance is critical to its health and survival. The concept of firm performance or value implies measuring the results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, and profit after tax etc. The underlying motivation for this form of research is the quest for those factors that may provide firms with a competitive advantage and hence drive firm profitability.

In this study, firm performance is a relevant construct in strategic management research and frequently used as a dependable variable. It is a subset of organizational effectiveness that covers operational and financial outcome (Santos & Brito, 2012). Therefore, a firm's high performance and value created reflects its effectiveness and efficiency in the management of its resources for operational, investment and financing activities (Naser & Mokhtar, 2004) as cited in Ayako, Kungu and Githui (2015).

Following the above assertion, the following hypotheses are formulated in null form;

HO₁: There is no significant relationship between audit fees and performance of listed oil and gas firms in Nigeria.

HO₂: There is no significant relationship between audit firm size and performance of listed oil and gas firms in Nigeria.

HO₃: There is no significant relationship between audit firm tenure and performance of listed oil and gas firms in Nigeria.

HO₄: There is no significant relationship between audit timeliness and performance of listed oil and gas firms in Nigeria

IV. METHODOLOGY

A. RESEARCH DESIGN

This study adopts correlational research design to empirically examine the nexus between audit quality and performance of listed oil and gas firms in Nigeria. According to Adefila (2008), this design is chosen because of its effectiveness in assessing the effect of two or more variables (that is, the dependent and independent variables). Thus, the design is consistent with the broad objective of this study.

B. POPULATION AND SAMPLE SIZE OF THE STUDY

The population of the study consists of all the thirteen (13) listed oil and gas firms operating on the Nigerian Stock

Exchange (NSE) as at 31st December 2015. In arriving at the sample size, the following criteria were used:

- ✓ A firm must be in operation during the study period that is, 2006 to 2015.
- ✓ A firm must not have been merged or taken over by another firm during the period of the study.
- ✓ A firm must not have been delisted throughout the period of the study. This is to ensure data availability and accessibility.

In view of the above, the study selected only seven (7) firms that met the stated criteria.

S/N	Oil and Gas Firms	Selected Firms
1	Anino International Plc.	
2	Beco Petroleum Product Plc.	
3	Capital Oil Plc.	
4	Conoil Plc.	1
5	Eterna Plc.	1
6	Forto Oil Plc.	1
7	Japaul Oil & Maritime Services Plc.	1
8	Mobil Oil Nigeria Plc.	1
9	MRS Oil Nigeria Plc.	1
10	Navitus Energy Plc.	
11	Oando Plc.	1
12	Rak Unity Petroleum Company Plc.	
13	Seplat Petroleum Development Company Ltd	
Sample of the Study		7

Source: Nigeria Stock Exchange Database (31 December, 2015)

Table 1: Population and Sample of the Study

C. SOURCES AND METHOD OF DATA COLLECTION

For the purpose of this study, secondary data is exploited, while the sources of the data is from the annual accounts and reports of the selected listed oil and gas firms in Nigeria for the period 2006 to 2015.

D. METHOD OF DATA ANALYSIS

In line with the research paradigm underpinning this study and in consistent with the objectives of this study, Multivariate regression analysis of data analysis are employed. Thus, the technique is consistent with the correlation research design employed in the study and the objective of this study.

E. EMPIRICAL MODEL SPECIFICATION

Model specification is the mathematical representation of a conceptual model (Yadirichukwu & Ebimobowei, 2013). To examine the nexus between audit quality and firm performance, this study uses modified version of Sayyar, et. al. (2015) model. However, since a number of studies have indicated the robustness of leverage and firm size in the audit quality - firm relationship, the study addresses this concern by controlling for these variables jointly as:

$$ROA = \alpha_0 + \alpha_1 AFEE + \alpha_2 AFS + \alpha_3 AFT + \alpha_4 ATM + \alpha_5 LEV + \alpha_6 FS + \varepsilon \quad (1)$$

$$TQ = \alpha_0 + \alpha_1 AFEE + \alpha_2 AFS + \alpha_3 AFT + \alpha_4 ATM + \alpha_5 LEV + \alpha_6 FS + \varepsilon \quad (2)$$

F. DATA EXAMINATION

UNIT ROOT TEST

This is conducted with the aid of the Augmented Dickey-Fuller (ADF) test, as serial correlation can be an issue, in which case the Augmented Dickey-Fuller (ADF) test can be used. The ADF handles bigger, more complex models (Le Cam & Lo Yang, 2000).

DIAGNOSTIC TEST

This section entails a description of the robustness tests conducted in order to improve the validity of all statistical inferences for the study. The tests include; multicollinearity test, and heteroskedasticity test (Umaru, 2014; Sayyar, et. al., 2015).

V. FINDINGS

A. UNIT ROOT TEST

Variable	Levels	T-Statistics	P-value	Remarks
AFEE	Level	-2.2172	0.0302	Stationary @ 5% Sig. level
	df1	-6.6495	0.0000	Stationary @ 1% Sig level
	df2	-	-	-
AFS	Level	-2.6198	0.0110	Stationary @ 5% Sig. level
	df1	-4.5460	0.0000	Stationary @ 1% Sig. level
	df2	-	-	-
AFT	Level	-5.2224	0.0000	Stationary @ 1% Sig. level
	df1	-	-	-
	df2	-	-	-
lnATM	Level	-3.8143	0.0003	Stationary @ 1% Sig. level
	df1	-	-	-
	df2	-	-	-
lnLEV	Level	-3.2025	0.0021	Stationary @ 5% Sig. level
	df1	-5.2820	0.0000	Stationary @ 1% Sig. level
	df2	-	-	-
lnFS	Level	-2.8915	0.0053	Stationary @ 5% Sig. level
	df1	-4.7929	0.0000	Stationary @ 1% Sig. level
	df2	-	-	-
ROA	Level	-6.5416	0.0000	Stationary @ 1% Sig. level
	df1	-	-	-
	df2	-	-	-
TQ	Level	-2.0406	0.0455	Stationary @ 5% Sig. level
	df1	-5.4869	0.0000	Stationary @ 1% Sig. level
	df2	-	-	-

Source: E-View Output Result

Table 4.2: Unit Root Test: ADF Testing

Table 4.2 shows that the result indicates that the variables are stationary at level 1 (0), which means that the variables are co-integrated, meaning that they have long run relationship.

B. DESCRIPTIVE STATISTICS

Variable	Min	Max	Mean	Std. Dev.
AFEE	0.00	1.00	0.6000	0.4934
AFS	0.00	1.00	0.7714	0.4229
AFT	0.00	1.00	0.8143	0.3917
lnATM	3.33	5.88	4.7796	0.5101
lnLEV	1.77	6.69	4.2694	0.6206
lnFS	14.15	18.90	17.3784	1.3010
ROA	-46.28	68.71	4.0031	14.0534
TQ	-1.71	3.70	0.7430	1.5854

Source: SPSS Output Result

Table 4.3: Descriptive Statistics of the Variables

Table 4.3 shows that minimum AFEE, AFS, and AFT are 0 and maximum 1.00 respectively, and average of AFEE, AFS, AFT for firms are 60%, 77%, and 81% respectively. This indicates that 60% of the audit reports were independently conducted, 77% of the firms employed the services of the Big-4 audit firms while 81% of the firms indicate that the tenure or rotation of auditors add value to audit quality.

C. CORRELATION RESULTS

	AFEE	AFS	AFT	lnAT M	LnLEV	lnFS	ROA	TQ
AFEE	1 (0.000)							
AFS	-0.028 (0.819)	1 (0.000)						
AFT	0.135 (0.265)	0.090 (0.459)	1 (0.000)					
LnAT M	-0.015 (0.901)	.286* (0.016)	-0.074 (0.544)	1 (0.000)				
LnLEV	-.362** (0.002)	.329** (0.005)	-0.086 (0.481)	.075 (0.536)	1 (0.000)			
LnFS	-0.168 (0.165)	.360** (0.002)	0.029 (0.810)	-0.160 (0.185)	.458** (0.000)	1 (0.000)		
ROA	-0.030 (0.808)	0.188 (0.119)	.248* (0.038)	-0.151 (0.214)	.321** (0.007)	0.148 (0.222)	1 (0.000)	
TQ	-0.144 (0.235)	-.280* (0.019)	0.043 (0.723)	0.179 (0.137)	-0.191 (0.113)	-.802** (0.000)	-0.001 (0.993)	1 (0.000)

** are significant at $p < 0.01$

* are significant at $p < 0.05$

Table 4.4: Correlations coefficient (Significance)

The table 4.4 shows that there is a negative relationship between audit firm size, audit timeliness and audit firm tenure, and audit fees; while return on assets is negatively related to audit fees and audit timeliness, and positively related to all other variables. However, there is a positive relationship between audit firm tenure and audit fees, and audit firm size. And in like manner, Tobin's q positively relate to all the variables.

D. REGRESSION RESULTS AND HYPOTHESES TESTING

a. ANALYSIS I: AUDIT FEES AND FIRM PERFORMANCE

Variable	ROA Coefficient (t-statistics)	TQ Coefficient (t-statistics)
Intercept	-32.42 (-1.420)	18.927 (13.483)***
AFEE	2.846 (0.803)	-0.793 (-3.641)***
lnLEV	8.084 (2.586)*	0.343 (1.785)ˆ
lnFS	0.011 (0.008)	-1.103 (-12.726)***
N	70	70
F-Statistics	2.772	61.39
P-value	5%	1%
R-Squared	0.111	0.736
Adj R-squared	0.072	0.724

Source: R-Console Output Results

*** are significant at $p < 0.01$, ** are significant at $p < 0.05$ and ˆ are significant at $p < 0.10$

Table 4.5: Multivariate Result for AFEEs and, ROA

Accounting Based Performance Measure

Table 4.5 shows the estimated regression relationship for the model as:

$$ROA = -32.412 + 2.846AFEE + 8.084LEV + 0.011FS$$

The model shows that AFEE has an insignificant positive effect on performance (ROA).

In addition, the results show the coefficient measures the proportion of the total variation in the performance (ROA) of firm that are explained by audit quality variable (audit fees). This coefficient evidenced that the model is well fitted as 11.1% of the total variation in firm performance has been explained by the variation in audit fees variable. The implication of this is that audit quality as explained by audit fees engender positively on firm performance.

Market Based Performance Measure

Table 4.5 also shows the estimated regression relationship for the model as:

$$TQ = 18.927 - 0.793AFEE + 0.343LEV - 1.103FS$$

The model shows that AFEE has a significant but negative effect on firm performance (TQ). In addition, the result shows the coefficient of determination for the model. This coefficient evidenced that the model is well fitted as 73.6% of the total variation in firm performance has been explained by the variation in audit fees variable. The implication of this is that audit quality as explained by audit fees engender negatively on firm performance. These results provide evidence for the rejection of the first null hypothesis, which states that there is no significant relationship between audit fees and performance of listed oil and gas firms in Nigeria. This result conforms to the findings of O'Sullivan and Diacon (2002), Hoitash, Maiklevich, and Barragato (2007), Yuniarti (2011), Yassin and Nelson (2012), Martinez and Moraes (2014), Farouk and Hassan (2014). However, the results of Moutinho, Cerqueira, and Brandao (2012), and Sayyar, Basirruddin, Abdul Rasid, and Elhabib (2015) are contrary to this position. And similarly, when audit fees negatively relate to performance, it means that abnormal fees paid to auditors decreases the wealth of shareholders. This result is also consistent with the findings of Moutinho, Cerqueira, and Brandao (2012), but at variance with the findings of Martinez and Moraes (2014), and Sayyar, Basirruddin, Abdul Rasid, and Elhabib (2015), as they suggest that higher audit fees serve as a signal to market and enhance firm performance.

b. ANALYSIS II: AUDIT FIRM SIZE AND FIRM PERFORMANCE

Variable	ROA Coefficient (t-statistics)	TQ Coefficient (t-statistics)
Intercept	-22.818 (-1.010)	17.301 (11.385)***
AFS	3.270 (0.776)	-0.124 (-0.438)***
lnLEV	6.805 (2.257)	0.588 (2.902)**
lnFS	-0.273 (-0.188)	-1.091 (-11.145)***
N	70	70
F-Statistics	2.755	47.65
P-value	5%	1%
R-Squared	0.111	0.684
Adj R-squared	0.071	0.669

Source: R-Console Output Results

*** are significant at $p < 0.01$, ** are significant at $p < 0.05$ and * are significant at $p < 0.10$

Table 4.6: Multivariate Result for AFS and, ROA and TQ Model

Accounting Based Performance Measure

The table 4.6 provides the estimated regression relationship for the model as:

$$ROA = -22.818 + 3.270AFS + 6.805LEV - 0.273FS$$

The result clearly shows that AFS has significant and positive effect on firm performance. The multivariate regression result indicates that AFS and firm performance relationship is positively insignificant. The implication of this result is that even after controlling for leverage and firm size, ROA remains insignificant in explaining firm performance.

Market Based Performance Measure

Table 4.6 provides the estimated regression relationship for the model as:

$$TQ = 17.301 - 0.124AFS + 0.588LEV - 1.091$$

The result clearly shows that AFS significantly affect firm performance. The multivariate regression result indicates that AFS and firm performance relationship is negatively significant with P-value at 1%. The estimated coefficient of AFS and TQ indicates that although the relationship is significant and unimportant in the determination of the value of oil and gas firms in Nigeria.

The results provide grounds for the rejection of the hypothesis 2, which stated that audit firm size has no significant relationship with firm performance. However, from the analyses of both 4.6.2.1a and 4.6.2.1b, the results affirm the findings of Miettinen (2011), Bouaziz (2012), Bae and Lee (2013), Cheng, Chen, and Chen (2013), Chen, Hsu, Huang, and Yang (2013), Rezaei and Shabani (2014), James and Izien (2014). They maintained that AFS increase audit quality indirectly and directly on performance.

c. ANALYSIS III: AUDIT FIRM TENURE AND FIRM PERFORMANCE

Variable	ROA Coefficient (t-statistics)	TQ Coefficient (t-statistics)
Intercept	-34.174 (-1.611)	17.212 (11.721)***
AFT	10.029 (2.492)*	0.364 (1.307)*
lnLEV	8.060 (2.821)**	0.599 (3.032)**
lnFS	-0.253 (-0.187)	-1.112 (-11.822)***
N	70	70
F-Statistics	4.839	49.24
P-value	1%	1%
R-Squared	0.180	0.691
Adj R-squared	0.143	0.677

Source: R-Console Output Results

*** are significant at $p < 0.01$, ** are significant at $p < 0.05$ and * are significant at $p < 0.10$

Table 4.7: Multivariate Result for AFT and, ROA and TQ Model

Accounting Based Performance Measure

The table 4.7 presents the estimated regression relationship for the model as

$$ROA = -34.174 + 10.029AFT + 8.060LEV - 0.253FS$$

Precisely, the result indicates that AFT has remained positively significant at 10% with firm performance as proxied by ROA. The implication of this result is that audit firm tenure is significant with firm performance in the sense that it improves the independence of auditors.

Market Based Performance Measure

Similarly, table 4.7 presents the estimated regression relationship for the model as $TQ = 17.212 + 0.364AFT + 0.599LEV - 1.112FS$

Specifically, the result indicates that AFT has remained positively significant with firm performance at 10% level. This positive relationship suggests that firms with having longer audit firm tenure are more likely to have lower return on assets. The result provides grounds for the rejection of hypothesis 3, which stated that audit firm tenure has no significant relationship with firm performance. This result corroborates the findings of Onwuchekwa, Erah, and Izedonmi (2012). However, this finding is contrary to the findings of Carcello and Nagy (2004), Carey and Simnett (2006), Abedalgader, Ibrahim, and Baker (2010), Adeniyi and Mieseigha (2013); in their findings, audit tenure is negatively related to audit quality.

d. ANALYSIS IV: AUDIT TIMELINESS AND FIRM PERFORMANCE

Variable	ROA Coefficient (t-statistics)	TQ Coefficient (t-statistics)
Intercept	2.307 (0.081)	17.134 (8.769)***
ATM	-5.082 (-1.568)	0.057 (0.259)***
lnLEV	8.053 (2.721)**	0.562 (2.783)**
lnFS	-0.483 (-0.339)	-1.097 (-11.271)***
N	70	70
F-Statistics	3.445	47.51
P-value	5%	1%
R-Squared	0.135	0.683
Adj R-squared	0.096	0.669

Table 4.8 shows the relationship between audit timeliness and firm performance.

Source: R-Console Output Results

*** are significant at $p < 0.01$, ** are significant at $p < 0.05$ and * are significant at $p < 0.10$

are significant at $p < 0.10$.

Table 4.8: Multivariate Result for ATM and, ROA and TQ Model

Accounting Based Performance Measure

Table 4.8 shows the summary of multivariate regression result for firm performance. The estimated linear regression relationship of the model is:

$$ROA = 2.307 - 5.082ATM + 8.053LEV - 0.483FS$$

The result provides evidence that audit timeliness has insignificant but negative relationship with ROA. Furthermore, the R-Squared indicated that 13.5% of ROA model can be explained by independent variable. Audit timeliness is insignificantly and negatively related to ROA as a measure of firm performance, possible reason for this could be that audit timeliness is not an important ingredient of audit quality and to the indices of firm performance of listed oil and gas firms in Nigeria due to variations in the reporting differences of their financial performance.

Market Based Performance Measure

Also, table 4.8 shows the estimated linear regression relationship of the model as:

$$TQ = 17.134 + 0.057ATM + 0.562LEV - 1.097FS$$

The result provides evidence that audit timeliness has significant and positive relationship with TQ significant at 1%. Furthermore, the R-Squared for TQ model indicated that 68.3% of the independent and control variables can be explained by independent and control variables. The result provides grounds for the rejection of hypothesis 4, which stated that audit timeliness has no significant relationship with firm performance. The implication of this result is that ATM is an indicator in the assessment of value of listed oil and gas firms in Nigeria. The findings of ATM with ROA model confirms the findings of Almosa and Alabbas (2007) in Dabor

and Mohammed (2015), as they maintained that audit delay negatively associated with firm performance.

G. DIAGNOSTIC TEST

a. MULTICOLLINEARITY TEST

Variable	ROA/TQ VIF	TV
AFEE	1.177	0.850
AFS	1.404	0.712
AFT	1.046	0.956
LnATM	1.219	0.821
LnFS	1.511	0.662
Mean VIF	1.309	

Source: SPSS Output Result

Table 4.9: Multicollinearity Test for ROA/TQ

Table 4.9 shows that none of the independent variable and control variables had value more than 10 and tolerance value lower than 0.10, suggesting the absence of multicollinearity.

b. HETEROSKEDASTICITY TEST

Breusch-Pagan or Cook-Weiberg Test		
Ho: Constant Variance		
Reject Ho if P-value is Significant		
AFEE	Chi (1)	20.63
	Prob > Chi 2	0.0001257
AFS	Chi (1)	24.39
	Prob > Chi 3	2.062e-05
AFT	Chi (1)	20.93
	Prob > Chi 4	0.0001085
lnATM	Chi (1)	20.13
	Prob > Chi 5	0.0001595

Source: R-Console Output Results

Table 4.10: Heteroskedasticity Test

The table 4.10 shows that P-value is very significant at less than 1% level all through for the four independent variables; therefore, the null hypotheses have to be rejected and show the presence of heteroskedasticity.

VI. CONCLUSION AND RECOMMENDATION

Based on the findings the study concludes that there is a nexus between audit quality and firm performance of listed oil and gas firms in Nigeria. That is, audit quality variables examined in this study have relationship with performance of listed oil gas firms in Nigeria during the period covered by the study. The study however, recommends that the management and the regulatory agencies should by legal provision emphasize on the need for structured audit fees in all aspect of the auditors activities in order to influence the quality of audit report, which is a reflection of the true state of the firm; clients should provide all the necessary resources both financial and

otherwise to the audit firm to enable them conduct a thorough audit that uncovers both fundamental and material misstatements and errors including income smoothing; regulators should emphasize the need to adhere to three years auditor-client relationship as auditor independence and auditors' professional scepticism could deteriorate as the length of auditor-client tenure increases; and regulatory authorities should emphasize the timely availability of audit report as it contributes in improving the performance of corporate entities since investors are eager to cease investment opportunities in firms with quality and reliable financial information on a timely basis.

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