

Measures of Audit Quality: Evidence from Nigeria

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Abstract

The objective of this study was to investigate the determinants of audit quality in oil and gas companies listed on the Nigerian Stock Exchange (NSE). To achieve this objective, eight out of the twelve oil and gas companies listed on the Nigerian Stock Exchange were sampled. Ordinary Least Square method of regression analysis was used to analyse the data gathered with the use of EViews version 7.0. The result of the regression indicate that there is relationship between the dependent variable (audit quality) and the independent variables (audit fees, audit tenure, client size, growth rate, leverage and return on total assets). The study recommend that government should enact laws to regulate audit fees and provide clear definition of period external auditor or audit firm can occupy office with the same client.

Keywords - audit quality, audit fees, audit tenure, client size, growth rate, leverage, return on total assets

I. INTRODUCTION

Over the years, there has been much debate regarding audit quality. There has been struggled with how to define audit quality, as well as, how to identify the proper framework and indicators for assessing audit quality. Audit quality gained even more attention after corporate scandals, such as Enron in 2001, WorldCom in 2002, and other companies all over the world. These scandals crushed the public's opinion of the accounting and auditing profession and caused investors to question the quality of the audits performed. To date, there is still little agreement on how to define audit quality, let alone how to measure it (as cited by Little & Lehkamp, 2018).

Vanstraelen (2000) state that audit quality is the ability of auditor to detect and report material misstatement in the investigated sample during auditing process, furthermore he claims that public auditor is not only demanded to detect but also to report occurring material misstatement. When such measures are taken, auditing process is considered more effective and of high quality. This is in line with Richard (2006) stating that audit quality is a balance between the auditor's competence and independence. The

importance of independent attitude of the auditor is pointed out by Moore et al. (2006) by referring to a number of auditing scandals in the United States including in Enron Corp. WorldCom and several public companies in 2001 and 2002 which overlooked independence and triggered audit failure. Based on previous elaboration and exemplifications, it can be seen that the independence of auditor is one of determining factors in audit quality (as cited by Suseno, 2013).

The issue of appropriate number of years an audit firm can continue to audit a client still remain an issue of discussion in Nigeria. CAMA (2004) as amended state that audit firm that audit a firm will remain the auditor to the client for the whole year and renewable thereafter but did not say the maximum number of years for the renewal. The production of a quality audit report is believed to boost confidence in financial reports by the users. Investors are likely to place much trust in financial statements that are audited by independent auditor; as independence of auditor boosts the assurance that key investment decisions can be made based on opinion of auditors. The increased confidence of these sets of financial users tend to attract the inflow of capital which has the long-run effect of creating growth and development in the business environment. (Ndubuisi & Ezechukwu, 2017). It is also noteworthy that inefficiencies of management could lead to structured financial statements. This study in line of the above was designed to investigate the factors that could affect the quality of the audit assignment, and analysed the existence and degree of relationships between the factors in the company sampled.

II. OBJECTIVES OF THE STUDY

The main objective of this study is to ascertain the determinants of audit quality in oil and gas companies listed on the Nigerian Stock Exchange. The specific objectives are to examine:-

1. The relationship between audit fee and audit quality of listed oil and gas companies in Nigeria.
2. The relationship between audit firm tenure and audit quality of listed oil and gas companies in Nigeria.

3. The relationship between audit firm size and audit quality of listed oil and gas companies in Nigeria.

III. RESEARCH HYPOTHESES

To achieve the objectives of this study, the following null hypotheses were formulated to guide the study:

1. There is no significant relationship between audit fee and audit quality of listed oil and gas companies in Nigeria.
2. There is no significant relationship between audit tenure and audit quality of listed oil and gas companies in Nigeria.
3. There is no significant relationship between audit firm size and audit quality of listed oil and gas companies in Nigeria.

IV. REVIEW OF LITERATURE

Public Company Accounting Oversight Board (PCAOB) of United States of America identified over 70 possible audit quality indicators (AQIs) (Little & Lehkamp, 2018), primarily based on previous studies regarding audit quality. This study will examine past literatures related to the factors that affect audit.

Ndubuisi & Ezechukwu, (2017) in their study discovered that audit fees, audit tenure, audit firm size have a statistically significant relationship with audit quality of banks listed on the floor of Nigerian Stock Exchange. They opine that auditor-client relationship should not exceed 3 years, because the auditor may develop close relationship with the client and become more likely to act in favour of management, resulting in reduced objectivity and audit quality. Dehkordi & Makarem (2011) examined the influence of audit firm size (the Big Four vs. Non-Big four) and auditor type (government auditors vs. private auditors) on audit quality. They discovered that the size of non-governmental audit firms does not affect their audit quality, and changes within private audit firms does not lead to changes in the level of discretionary accruals. Their results indicate that in some countries factors such as auditor type, intense competition, audit committee, and litigation risk are of greater importance than audit firm size.

Mahdi & Ali (2009) state that the size of audit firm has been used as a surrogate for audit quality, that is, large audit firms have a reputation to protect, therefore, will ensure an independent quality audit service. Larger audit firms have better financial resources and research facilities, superior technology and more talented employees to undertake large company audits than do smaller audit firms. Their larger

client portfolios enable them to resist management pressure, whereas smaller firms provide more personalized services due to limited client portfolios and are expected to succumb to management requirements.

Zamzami, Tantri, & Timur (2017) examined the effects of auditor independence and experience, size of clients' financial health and audit fee on the audit quality. The study provides empirical evidence about the audit quality in Indonesia, and targets auditors at the Public Accounting Firms in Indonesia as the respondents. The study states that on a partial basis, the auditor independence and experience affect the audit quality, while the size of the client's financial health and the audit fee give no significant effects on the audit quality. On the other hand, simultaneously, the auditor independence and experience, the size of the client's financial health, and audit fee significantly affect the audit quality.

Salehi, Moradi, & Paiydarmanesh (2017) examined the effect of audit quality and internal and external corporate governance on the quality of disclosure of financial statements in Iran. They found that there is no significant positive relationship between independent audit quality and the quality of disclosure of financial statements information, but there is a significant relationship between corporate governance and the quality of disclosure of financial statements information.

Khan & Haq (2015) conducted their study to analyze audit quality in context of abnormal or extra fee paid to auditor. They stated that audit conducted without independence of auditor is futile and results in impairment of audit quality. Also stated that independence of auditor is usually curbed by extra fee paid to him by client, and auditor in fear of losing a lucrative fee does not report the misrepresentations of financial statements in his audit report. The results of the study revealed that auditors in Pakistan do not compromise on their standards and honesty even when paid extra fee. According to them, the quality of audit is not impaired when auditors are paid extra fee and the auditors work with diligence and exert extra effort to improve the audit quality. They opine that audit quality is not impaired when high fee is paid to auditors in Pakistan.

Suseno (2013) investigate the influence of auditor independence and audit fees towards on audit quality and that auditor independence significantly influences the audit quality and audit fees significantly influences the auditing quality. They opine that the measures to enhance auditing quality can be taken by means of developing independent attitudes and

determining sufficient audit fees. He divided auditing quality into seven criteria, i.e. skills, experience, ethical value, mindset, the reliability of auditing methods, the effectiveness of the utilized tools and the technical supports. He concludes that high quality audit requires efforts both from the public auditor and optimal audit fees. He also stated that auditor indolence has a great influence on audit quality.

Turley and Willekens (2008) states that audit quality is normally related to the ability of the auditor to identify material misstatement in the financial statements and their willingness to issue an appropriate and unbiased audit report based on the audit result. Boynton, Raymon & Walter (2006) argues that every profession is consistently related to the quality of the services it provides, including auditors in which the quality of its services is of utmost importance to assure that this profession is responsible to the clients, the people, and regulations. The audit quality refers to standards concerning standards with criteria or execution quality measures and also related to the goals that it wish to accomplish by applying related procedures. Pike (2003) posit that when the auditor is not independent, the will to produce high quality certified public accountant (CPA) to be impartial and free of conflicts of interest. The context of this study, independence is scrutinized in terms of integrity and objectivity.

Srinivasan Srinivasan, Zhou, & Zhou, (2002) further tested a sample of several Andersen’s clients and investigated the diminishing of public accounting office reputation after accounting scandals in 2002. The results showed that auditor independence affects the audit quality and credibility of the audited financial reports. Abdul-Rahman, Benjamin & Olayinka (2017) investigate the relationship between audit fee, audit tenure, client size, leverage ratio and audit quality. The study conclude that audit fee, audit tenure, client size and leverage ratio exhibit a joint significant relationship with audit quality. They suggest that Government through the various professional bodies should develop robust policies that will help improve audit quality in Nigeria.

Choi, Kim & Zang, (2006) examined whether, and how, audit quality proxied by unsigned discretionary accruals is associated with the abnormal audit fee, that is., the difference between actual audit fee and auditors’ expectation on the normal level of fee. Their findings show that the association between the two is insignificant for the full sample, significantly positive for the subsample of clients with positive abnormal fees, and insignificantly negative for the subsample of clients with negative abnormal fees. They suggest that auditors’ incentives to

compromise audit quality differs and systematically depend on whether the clients pay more than or less than the normal level of audit fees, which in turn leads to the audit fee-audit quality association being conditioned on the sign of abnormal audit fees.

V. METHODS AND VARIABLES

The population of this study comprises of 12 Oil and Gas companies quoted on the Nigerian Stock Exchange (NSE). These are Oando Plc., Conoil Plc., Capital Oil Plc., MRS Oil Nigeria Plc., Eterna Plc., Total Nigeria Plc, Japaul Oil & Maritime Services, Anino International Plc., Forte Oil Plc., Rak Unity Pet. Comp. Plc., Seplat Petroleum Development Company Ltd and MOBIL (11) Plc. Eight companies were sampled out of the twelve companies and these are Oando Plc., Conoil Plc., Capital Oil Plc., MRS Oil Nigeria Plc., Total Nigeria Plc., Forte Oil Plc., Seplat Petroleum Development Company Ltd and MOBIL (11) Plc. These are the companies that their financial statements were complete and accessible as at the time of this research. The study covered period from 2010 through 2017 because financial statements for the companies are not available for 2018 yet. The data for the study were gathered from published financial statements of the companies and the data were analysed using EViews version 7 and Ordinary Least Regression analysis method for decision making. The study adopt 5% level of significance for all the tests. The variables were subjected to unit root tests and were stationary at the level.

VI. MODEL SPECIFICATION

$$AUDQUAL = \beta_0 + \beta_1AUDFEE + \beta_2AUDTEN + \beta_3CLTSIZE + \beta_4LEV + \beta_5GRT + \alpha$$

- Where:
- AUDQTY = Audit Quality
 - AUDFEE = Audit fee
 - AUDTNR = Auditor’s Tenure
 - CLTSIZE = Client Size
 - LEV = Leverage
 - ROA = Return on Total Assets
 - GRT = Growth
 - α = error term

TABLE I
Measurement of Variables

Variables	Definition of variables	Type of Variable	Measurement of Variables
AUDQTY	Audit Quality	Dependent	1 is used if audit firm is Big 4 and 0 if

			not.
AUDFEE	Audit Fee	Independent	Natural log of Audit fee paid by the client firm.
AUDTNR	Auditor's Tenure	Independent	1 if audit tenure up to 3 years and above and 0 if below 3 years.
CLTSIZE	Client Size	Control	Total assets of the client firm
LEV	Leverage	Control	Total debt to Equity ratio
ROA	Return on Total Assets	Control	Revenue divided by total assets
GRT	Growth	Control	price to book value

Source: Authors' Computation

VII. RESULTS

TABLE II
Ordinary Least Square Result

Dependent Variable: AUDQTY
Total panel (balanced) observations: 64

Variable	Coefficient	tStd. Error	t-Statistic	Prob.
C	-65.76433	14.17783	-4.638531	0.0000
AUDFEE	1.533252	0.342401	4.477946	0.0000
AUDTNR	-0.035741	0.096331	-3.371024	0.0120
CLTSIZE	2.653559	1.391035	3.907615	0.0015
GRT	-1.323783	1.313446	-1.007870	0.1178
LEV	3.428606	0.516654	6.636179	0.0000
ROA	-0.301871	0.322410	-5.936296	0.0031

R-squared	0.955858
Adjusted R-squared	0.951211
F-statistic	205.7138
Prob(F-statistic)	0.000000
Durbin-Watson stat	2.067074

Source: EViews 7.0 Computation

The probability result of the regression analysis at 0.0000, 0.0120, 0.0015, 0.0000, and 0.0031 indicate a significant relationship between audit fees (AUDFEE), audit tenure (AUDTNR), client size (CLTSIZE), leverage (LEV) and audit quality respectively. The

value of the t-Statistic are also significant. The coefficient of individual variables indicate a negative relationship between audit tenure, growth, return on total assets and audit quality. This negative relationship means that audit quality will improve if there is a fall in any of the variables and vice versa.

The result of the R-squared at 0.96 and the adjusted R-squared at 0.95 indicate a strong relationship between all the variables and audit quality. The correlation according to the statistical result very high and the remaining 4% may be accounted for by other variables which are not included in this work because they are considered to be very significant for our decision making. Likewise the result of the F-statistics (205.7138) and the prob.(F-Statistic) indicate that the explanatory variables considered in this work jointly and significantly affect the dependent variables (audit quality). The result of Durbin Watson statistics at 2.07 indicate that the variables are not suffering from serial correlation and can be used for decision making.

Table III
Correlation Matrix

VARIABLE	AUDQTY	AUDFEE	AUDTNR	CLTSIZE	GRT	LEV	ROA
AUDQTY	1						
AUDFEE	0.6665	1					
AUDTNR	-0.5008	0.2313	1				
CLTSIZE	0.8986	0.4642	-0.6513	1			
GRT	0.2631	0.6175	0.2973	0.0801	1		
LEV	0.9464	0.5143	-0.6436	0.9010	0.2259	1	
ROA	-0.6123	0.0104	0.8421	-0.7352	0.4068	-0.6667	1

Source: EViews 7.0 Computation

From the result of the correlation matrix shows that there is significant positive relationship at 0.6665, 0.8986 and 0.9464 between audit fees (AUDFEE), client size (CLTSIZE), leverage (LEV) and audit quality (AUDQTY) respectively. The result of correlation matrix also indicate that there is significantly negative relationship at (-0.5008 and -0.6123) between audit tenure (AUDTNR), return on total assets (ROA) and audit quality (AUDQTY) respectively. This indicate that audit quality depends on all the variables except growth opportunity as shown in the correlation tables.

TABLE IV

Pairwise Granger Causality Tests

Null Hypothesis:	F-Statistic	Prob.
AUDQTY does not Granger Cause AUDFEE	0.47920	0.6225

AUDFEE does not Granger Cause AUDQTY	6.13000	0.0002
AUDTNR does not Granger Cause AUDFEE	0.50677	0.6060
AUDFEE does not Granger Cause AUDTNR	5.42054	0.0080
CLTSIZE does not Granger Cause AUDFEE	2.08896	0.1362
AUDFEE does not Granger Cause CLTSIZE	10.2516	0.8784
GRT does not Granger Cause AUDFEE	0.09781	0.9070
AUDFEE does not Granger Cause GRT	3.26725	0.0478
LEV does not Granger Cause AUDFEE	0.24485	0.7839
AUDFEE does not Granger Cause LEV	0.03525	0.9654
ROA does not Granger Cause AUDFEE	0.06851	0.9339
AUDFEE does not Granger Cause ROA	6.08954	0.0047
AUDTNR does not Granger Cause AUDQTY	4.00710	0.0254
AUDQTY does not Granger Cause AUDTNR	0.40987	0.6663
CLTSIZE does not Granger Cause AUDQTY	12.7470	4.E-05
AUDQTY does not Granger Cause CLTSIZE	3.08063	0.0502
GRT does not Granger Cause AUDQTY	0.00131	0.9987
AUDQTY does not Granger Cause GRT	0.17050	0.8438
LEV does not Granger Cause AUDQTY	1.24984	0.2968
AUDQTY does not Granger Cause LEV	0.98091	0.3832
ROA does not Granger Cause AUDQTY	3.93522	0.0270
AUDQTY does not Granger Cause ROA	0.31677	0.7302

Source: EViews 7.0 Computation

From the result of the test of Granger Casualty test. The result indicate that audit quality does not granger cause audit fee but audit fee granger cause audit quality, that is audit fee can be used to predict audit quality with the result at the probability value of 0.6225 and 0.0002. The test indicate that audit fee can also be used to predict audit tenure which explains while auditors will prefer to stay longer in some firms than other firms with the probability value of 0.6060 and 0.0080. The probability value of 0.0004 and 0.0502 indicate that client size likewise can be used to predict audit quality.

TABLE V
Result of Unit Root Test

VARIABLES	t-Statistics	Prob.	Decision
AUDQTY	44.7614	0.0002	Stationery
AUDFEE	11.5232	0.0045	Stationery
AUDTNR	39.5868	0.0009	Stationery
CLTSIZE	19.2848	0.0019	Stationery
GRT	20.0599	0.0123	Stationery
LEV	12.4735	0.0083	Stationery
ROA	20.7235	0.0014	Stationery

Source: EViews 7.0 Computation

The test for presence of serial correlation indicate the absence of serial correlation in all the variables as AUDQTY, AUDFEE, AUDTNR, CLTSIZE, GRT, LEV, and ROA gives probability of 0.0002, 0.0045, 0.0009, 0.0019, 0.0123, 0.0083 and 0.0014 respectively at level. Therefore, the variables were subjected to regression analysis at level.

VIII. CONCLUSION AND RECOMMENDATION

The objective of this study was to ascertain the determinants of audit quality in oil and gas companies listed on the Nigerian Stock Exchange. Decisions for this study was based on the result of the regression analysis. Given the result of the regression analysis, we conclude that audit quality is statistically dependent on all the explanatory variables, that is, audit fee, audit tenure, client size, growth rate, leverage and return on total assets.

Conclusion from the regression result is in agreement with the findings of Abdul-Rahman, Benjamin & Olayinka (2017) Ndubuisi & Ezechukwu, (2017) which also states that audit fees, audit tenure, audit firm size have a statistically significant relationship with audit quality of banks listed on the floor of Nigerian Stock Exchange. Mahdi & Ali (2009) posit that size of the audit firm affects the audit quality. Choi, Kim & Zang, (2006) are of the opinion that audit quality is greatly affected by the audit fee, they claimed that audit firm may compromise when the client offer them large remuneration for their work.

This study recommends that government should enact laws to regulate audit fees and provide clear definition of period external auditor or audit firm can occupy office with the same client.

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