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Original Research Article

## **Auditor's Independence and Audit Quality: An Empirical Study**

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### **Abstract**

*The study examines the effect of auditor's independence on audit quality of listed oil and gas companies in Nigeria over a period of ten (10) years (from 2007 to 2016). The sample size comprises of nine (9) out of the fourteen (14) companies listed in the downstream sector of the Nigeria Stock Exchange selected using purposive sampling technique. The study uses secondary data which were sourced from the audited annual financial statements of the sampled companies. The panel data were analyzed using descriptive statistics, correlation matrix and binary logit regression technique. The findings show that there is a significant positive relationship between auditor's independence and audit quality, while the control variable of company size and leverage showed positive and negative relationship with audit quality respectively. The study recommends that the entire components of audit fees pricing and calculation should be regulated and disclosed in order to provide public insight into the financial dependence of an auditor on a client and whether the fee corresponds with the complexity of the audit assignment.*

### **1.0 INTRODUCTION**

The financial statements statutorily produced by the management contain vital information that guides the business decision of both internal and external users. And since the preparers of such information (agents) are different from the real owners of the business (principals), there is need for a third party whose duty is to supervise the work performed by management in order to

provide assurance that the financial information presented to investors and other stakeholders represents the true financial position of the company (Zayol & Kukeng, 2017). Thus, the need for auditing can be adjudged to have emanated due to the separation of the management from the ownership of companies - as statutorily practiced in all listed companies around the world.

### ***JEL Classification Codes: M41 M48***

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Generally, auditors are saddled with the responsibility of examining the financial report of organizations for the purpose of ascertaining whether it represents that which they purport (Abubakar, N.d). The primary purpose of an audit, therefore, is to provide company shareholders with an expert and independent opinion as to whether the annual financial statement of the company reflects a true and fair view of the financial position of such company, and whether they can be relied upon for investment decision purposes. However, for the auditor to give the expected unbiased and honest professional opinion on the trueness and fairness of financial statements to the shareholders, the auditor needs to be independent from the client company, so that the audit opinion will not be influenced by any relationship between them.

Auditor independence, therefore, refers to the ability of the external auditor to act with integrity and impartiality during his auditing functions (Akpom & Dimkpah, 2013). Independence, in this context, represents the means by which an auditor demonstrates that he can perform his task in an objective manner. However, doubts are sometimes expressed regarding the independence of external auditors as most auditors could reach audit opinions and judgments that are heavily influenced by the wish to maintain good relations with the a client company. If this happens, the auditors can no longer be said to be independent and the shareholders may not rely on their opinion. A typical example would be the relationship between Enron and their auditors, Arthur Andersen in the year 2000, where it was reported that the latter received about \$27million for non-audit services, compared with \$25million for audit services (Ferdinand & Fung, 2014). In the aftermath of Enron's demise, the accounting firm was accused of not acting independently. Similar cases of corporate and accounting scandals in Nigeria such as Cadbury Nigeria Plc, African Petroleum (AP), Savannah Bank, Wema Bank, Nampak, Finbank, Spring Bank, Intercontinental Bank, Bank PHB; Oceanic

Bank Plc, AfriBank Plc, among others, were equally highly publicized. One common phenomenon in majority of these corporate failures is that most of the distressed corporations had clean auditor's reports prior to their eventual collapse (Dabor & Dabor, 2015). These have called to question the validity of the financial statements prepared by corporations as well as the independence of the external auditors.

Numerous studies have attempted to examine the nexus between auditor independence and audit quality in the Nigerian audit market. Majority of these existing studies, such as Enofe, Mgbame, Okunega and Ediae (2013); Akpom & Dimkpah (2013); Oladipupo and Emife (2016); Babatolu, Aigienohuwa and Uniamikogbo (2016), were of the view that the length of the audit tenure is among the major factors that affects auditor's independence, with Enofe et al (2013) and Babatolu et al (2016) adopting the tenure of an auditor as proxy for auditor independence. Several schools of thought exist in this regards, one group (such as Enofe et al, 2013) believes that lengthy audit tenure tend to result in an opportunity cost of auditor independence, which in turn impairs audit quality. Other groups (such as Tepalagul & Lin, 2015) argue that auditor independence and audit quality tend to increase with lengthy auditor tenure because auditors may require ample time in order to gain expertise in audit business and acquire client-specific knowledge over time.

On the other hand, other crop of researchers (Okolie, 2014; Babatolu et al, 2016; Maria, 2016) suggest that the amount paid for an audit service could act as impediment for auditor independence arguing that higher audit fees will likely increase the economic bond between the auditor and the auditee, thereby impairing the auditor's independence (Fiitriany, Sylvia, & Viska, 2016; & Okolie, 2014) while audit firm that charges little fees might be influenced by the institution management who may decide to offer more money for the auditor to

compromise his professionalism hence interfere with his independence. Thus, the linkage between the fees received for audit services and auditor independence in determining audit quality has been a thing of concern to stakeholders for some time, especially since after the Enron's case.

In Nigeria, much of the empirical evidences from this area of study dwells more on listed deposit money banks (Babatolu et al, 2016; Kighir, 2013; & Enofe et al, 2013). Not much empirical studies exist, particularly about auditor's independence and audit quality among companies listed in the downstream sector of the Nigerian Stock Exchange (NSE). This is an indication of a possible paucity of auditor independence and audit quality researches in the oil and gas sector, hence the need for this study. More so, considering that one of the major players in the Nigerian oil and gas market (i.e Forte Oil - formerly African Petroleum) was not long ago engulfed in a corporate scandal where about "24 billion Naira worth of credit facility was omitted from the financial statement" leading to their subsequent restructuring (Aliyu & Ishaq, 2015, p.35); beaming the research light on auditor's independence in the Nigerian oil and gas sector will contribute to the recent discussions on auditor independence in response to global best practices.

To this extent, the broad objective of this paper is to examine the effect of auditor's independence on audit quality of listed oil and gas companies in Nigeria. The study expects to expand the body of literature on audit quality as well as the recent discussions and calls on regulatory bodies towards monitoring of the audit fees chargeable by the audit firms in respect of auditor independence.

## 2.0 LITERATURE REVIEW

Auditor's independence may be defined as an auditor's unbiased mental attitude in making decisions throughout the financial reporting auditing process. An auditor's lack of independence increases the possibility of

being perceived as not being objective. This means that the auditor will not likely report a discovered breach (Deangelo, 1981). Auditor independence is seen as very important for the reliability and integrity of financial reporting (Wallman, 1996). Auditor independence not only comprises independence of mind but also, independence in appearance. Two types of auditor independence were developed by Mautz and Sharaf (1961) namely practitioner-independence (or independence in fact), and profession independence (or independence in appearance). The Code of Ethics for professional accountants defines independence of mind as "the state of mind that permits the expression of a conclusion without being affected by influences that compromise professional judgment, thereby allowing an individual to act with integrity and exercise objectivity and professional skepticism" (IFAC, 2009, p.21). The Code of Ethics defines independence in appearance as the avoidance of facts and circumstances that are so significant that a reasonable and informed third party would be likely to conclude, weighing all the specific facts and circumstances, that a firm's, or a member of the audit team's, integrity, objectivity or professional skepticism has been compromised. Safeguarding auditor independence is essential for creditworthiness of the auditor and its reputation. Not only is the perceived independence of the auditor important for the auditor itself but also for the client and their audited figures.

Beattie, Brandt, and Fearnley (1999) argued that there are three factors (or threats) that could influence the perceived auditor's independence. Among these major threats are the fees perceived by the auditor for audit and non audit services, the length of the auditor and auditor rotation. The impaired independence of an auditor result in poor audit quality and allows for greater earnings management and lower earnings quality (Okolie, 2014). Auditor's independence may be impaired by auditor tenure. As the auditor client relationship

lengthens, 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. The proponents of mandatory rotation equally argued that the longer an auditor tenure the lesser its objectivity and opponent claiming that it is expensive to carry out. Davis, Soo, and Trompeter (2000) agreed that there is no empirical evidence about the effect of rotation on auditor cost and quality. Similarly, providing non-audit services, as earlier stressed as in the case of Arthur Anderson, increases the economic bond between the auditor and the client, and there is a widespread belief that auditors might sacrifice independence in order to retain clients who are paying large amounts in non-audit fees (DeFond, Raghunandan, & Subramanyam, 2002).

Audit quality is an important issue that is considered by various interest groups in the company, audit scope and capital market. Because audit quality is barely visible in practice, research in this area has always been faced with many problems of definition. One of the most common definitions of quality audit was that by DeAngelo (1981), which suggests that audit quality is the market assessment of the likelihood that the auditor (i) detect significant distortions of the financial statements or employers accounting system and (ii) report significant distortions. Arens, Elder, Beasley, and Fielder (2011, p.105) also saw the quality of the audit are as “how well an audit detects and report material misstatements in financial statements, the detection aspects are a reflection of auditor competence, while reporting is a reflection of ethics or auditor integrity, particularly independence”.

Saputra (2015, p.349) summarized his comprehension of what the quality of the audit is by linking it to “an audit conducted in accordance with auditing standards generally acceptable that can detect and report material misstatements in the financial statements include disclosure

relating either caused by an error / fault or fraud, is able to provide assurance of internal controls, and capable to provide going concern warnings”. However, if the auditor does not remain independent, he/she may be less likely to report the irregularities and hence, the audit quality will be impaired.

Zayol & Kukeng (2017) reviewed the effect of auditor independence on audit quality. The study adopted the ex post facto research design relying on secondary information obtained from journals, text books and other internet materials. Based on the review, they concluded that there is a strong relationship between auditor independence and audit quality. They also revealed that there are four threats to auditor independence, which they listed as client importance, non-audit services (NAS), audit tenure, and client’s affiliation with CPA firms.

Babatolu et al (2016) examine the effect of auditor’s independence on audit quality among seven (7) purposively selected deposit money banks in Nigeria from 2009 to 2013. The population of this study comprised of twenty (20) listed Deposit money banks in Nigeria. Adopting descriptive statistics, correlation and ordinary least square (OLS) regression technique, their findings revealed that there is a positive relationship between audit fee, audit firm rotation and audit quality, while a negative relationship exists between audit firm tenure and audit quality. On the correlation matrix, the association between audit quality and leverage was strong, negative and statistically significant, while that between audit quality and company size was equally strong, positive and statistically significant.

Okolie (2014) examines the relationship and effects of auditor independence (measured by the quantum of audit fees received) on the earnings management (discretionary accruals) of companies in Nigeria. The study employed the use of secondary data derived from the Nigerian Stock Exchange

fact book on a total of 342 company year observations. The empirical analysis shows that audit tenure and auditor independence exert significant effects and exhibit significant relationship with the amount of discretionary accruals of quoted companies in Nigeria.

Ilaboya and Ohiokha (2014), this study empirically examines the impact of audit firms' characteristics on audit quality. They proxy the dependent variable (audit quality) using the usual dichotomous variable of 1 if big 4 audit firm and 0 if otherwise. Data for the study were sourced from the financial statements of 18 food and beverage companies listed on the Nigerian Stock Exchange market within the period studied (2007-2012). They adopted multivariate regression technique with emphasis on Logit and Probit method in analyzing their data for the study. Their study revealed there is a positive relationship between firm size, board independence and audit quality whereas there is a negative relationship between auditor's independence, audit firm size, audit tenure and audit quality.

Enofe et al (2013) empirically examined the relationship between audit quality and auditors independence in Nigerian listed companies. To achieve this objective, they conducted a cross sectional analysis adopting audit quality as dependent variable which was measured by the fees charged by the audit firms. The independent variables they used include audit tenure, board independence, and ownership structure. Using the ordinary least square (OLS) regression analysis, their results indicated that as auditors' independence increase, the quality of the audit also improves.

Adeniyi and Mieseigha (2013) examined the effect of audit tenure (as proxy for independence) on audit quality in Nigeria. For audit quality, they used a dummy value of 1 if a firm employs the services of any of the big 4 auditors and 0 if otherwise. They measured tenure in terms of number of years spent by the auditor of a sampled

company. If greater than 3, they assign 1, else 0. Their study revealed that the relationship between tenure and audit quality was observed to be inverse and this could stimulate the discourse on the sensibleness of changing auditors after a period of time as it may be effective at increasing the level of audit quality. For the other variables examined alongside tenure such as board size, board independence and director ownership which are all proxy of the corporate governance were found to be inversely related with audit quality.

Chijoke, Emmanuel and Nosakhare (2012) examine the relationship between audit partner tenure and audit quality. They used Binary Logit Model estimation technique in analyzing the relationship between the tenure of an auditor and audit quality. Their findings reveal that there is a negative relationship between auditor tenure and audit quality though the variable was not significant. The other explanatory variables (ROA, Board Independence, and Director Ownership and Board size) considered alongside auditor tenure were found to be inversely related to audit quality aside from Returns on Assets which exhibited a positive effect.

Adeyemi and Okpala (2011) opined that an audit firm's tenure can result in a loss of auditor's independence. A long audit-client relationship could lead to an alignment of the auditor's interest and that of its client which makes truly independent behaviour of the auditor a probability. The study concluded that audit firm rotation does not necessarily enhance audit independence in Nigeria. This could be due to the unity of professional attitude among auditors and similarity in cultural bias and orientation. or tenure may have significant effect on the audit quality.

Kabiru and Abdullahi (2012), they carried out an empirical investigation into the quality of audited financial statements of deposit money banks in Nigeria, using both primary and secondary data and from the

population of 21 banks they select a sample of 5 banks publicly quoted companies in Nigeria. They found that Independence of an auditor does significantly improve the quality of audited financial statements of money deposit banks in Nigeria. Compliance to auditing guidelines has positive and significant effect on the quality of audited financial statement of money deposit banks in Nigeria. Material misstatement does significantly affect the quality of audited financial statements of money deposit banks in Nigeria. They also found that audited financial statements of Nigerian money deposit banks, if re-audited by other independent auditors, will give the same result and conclusion.

Oladele (2010) examined the determinants of auditors' independence in Nigerian public enterprises using primary data collected via questionnaire administered in the Nigerian Ports Authority Headquarters Lagos. Using the percentage method and chi square hypothesis test, the study revealed that the independence of the auditor has a significant impact on the accountability disposition of Nigerian public enterprises. His result also shows that the provision of other services by the auditor as well as non-rotation of auditors are some of the strong factors, which may negatively impact on the auditor's independence and objectivity in Nigerian audit market.

In line with the review of literature above, the null hypotheses was tested in the course of the study:

**H<sub>0</sub>:** There is no significant relationship between auditor independence and audit quality.

The t-ratios from the binary logit regression result were used to test hypotheses. The study adopted 5% level of significance under the two-tailed test. The decision rule is that the null hypothesis will be rejected if the calculated t-ratio is greater than the t-critical value, otherwise the null shall be accepted and the alternative rejected. The t-critical/table distribution value is 1.96 at 89

degree of freedom (2-tailed) at 0.05 level of significance.

## 2.1 Theoretical Framework

This study adopts the auditors' theory of inspired confidence as a theoretical background to develop an empirical framework for examining the impact of auditor's independence on audit quality. The auditors' theory of inspired confidence offers a linkage between the users' requirement for credibly audited financial reports and the capacity of the audit processes to meet those needs. It was developed by the Limperg Institute in Netherlands in 1985. The theory of inspired confidence posits that the auditor, as a confidential agent, derives his broad function from the need for expert and independent assessment plus the need for an expert and independent judgement supported by evidence. Minimizing the risk of undetected material misstatements implies that the accountant is under a duty to conduct his work in a manner that does not betray the confidence which he commands before the rational person even if the accountant may not produce what is greater than the expectation of the public (Limperg Institute, 1985). The import of the theory of inspired confidence is that the duties of the auditors derive 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. Since this confidence determines the existence of the process, a betrayal of the confidence logically means a termination of the process or function. Carmichael (2004) discussed the social significance of the audit and asserted that when the confidence that stakeholders have in the effectiveness of the audit process and the audit report is misplaced, the value relevance of that audit is destroyed. Audit provides assurance to the owners, management, investors and all stakeholders of a company as well as provides confidence in audited financial reporting and the capital markets.

**3.0 METHODOLOGY**

The study adopts the ex-post facto design in executing the study considering that the selected firms were not randomly selected. The population of the study comprised of all the fourteen (14) oil and gas companies listed in the downstream sector of the Nigerian Stock Exchange (NSE) from 2007 to 2016 (10 financial years). Five (5) of the companies were filtered out owing to incomplete data for the entire ten-year period under evaluation as not all the current 14 oil and gas firms were listed as at 2007 (see appendix). In all, a total of nine (9) oil and gas companies made up the final sample size from whose annual financial reports act as the source of the secondary data used for the study.

**3.1 Analytical Technique and Model Specification**

In line with some audit quality determinants studies such as Babatolu et al (2016) and Enofe et al (2013), the panel data analysis technique was employed due to the combination of cross sectional and time series data in the study. The multiple regression model used in the study was adapted from Okolie (2014) where audit fees were used to proxy auditor's independence. Also, firm size and leverage was deployed as control variables as previous studies (such as Aledwan, Yaseen, and Alkubisi, 2015) show they could influence reporting and audit quality. The functional form of the model is presented thus:

Audit Quality =  $f$ (Auditor's Independence) .....Equ (1)

Infusing the two (2) control variables, we have:

Audit Quality =  $f$ (Audit Independence, Firm size, Leverage).....Equ (2)

In econometric form, we have:

AUDQ<sub>it</sub> =  $\beta_0 + \beta_1$ AUDIND<sub>it</sub> +  $\beta_2$ FSIZE<sub>it</sub> +  $\beta_3$ LEV<sub>it</sub> +  $e_t$ .....Equ (3)

Where:

$\beta_0$  = Intercept;  $\beta_1$  to  $\beta_3$  = Unknown Coefficients

AUDQ = AUDIT QUALITY = measured as a dummy variable of 1 if company  $i$  is audited by any of the Big4 audit firms in year  $t$ , 0 otherwise – used as proxy for audit quality (Ilaboya & Ohiokha, 2014).

AUDIND = AUDITOR INDEPENDENCE = measured as the Natural Log of audit fee charged by the audit firm of company  $i$  in year  $t$  – used as proxy for audit independence (Okolie, 2014).

FSIZE = FIRM SIZE = measured as Natural logarithm of total assets of company  $i$  in year  $t$  (Babatolu et al, 2016).

LEV = LEVERAGE = measured as total debt scaled by total assets (Okolie, 2014)

$E_t$  = Error term

The *a priori* expectations were predicted as:  $\beta_1 > 0$ ;  $\beta_2 > 0$ ; and  $\beta_3 < 0$

**4.0 DATA PRESENTATION AND ANALYSES**

The analysis of the descriptive statistics, correlation matrix and regression outputs are presented in the following sub-sections:

**Table 1 Descriptive Statistics**

	AUDQ	AUDIND	FSIZE	LEV
Mean	0.688889	25956354	560626527	0.822740
Median	1.000000	16750000	52419373	0.765824
Maximum	1.000000	16495600	2.1E+09	9.533342
Minimum	0.000000	400000.0	814117.0	0.043593
Std. Dev.	0.465542	29900440	2.32E+09	1.119212
Skewness	-0.816026	2.473066	7.822705	5.704197
Kurtosis	1.665899	9.866635	68.68942	41.83052

Jarque-Bera	16.66283	268.5559	17099.55	6074.104
Probability	0.000241	0.000000	0.000000	0.000000
Sum	62.00000	2.34E+09	5.05E+10	82.12390
Sum Sq.				
Dev.	19.28889	7.96E+16	4.78E+20	110.2319
Observations	90	90	90	90

Source: Researchers Computation via Eviews 9.5 (2017)

The descriptive statistics in Table 1 shows the characteristics of the variables used in the study. As observed, the mean value of AUDQ stood at 0.696629 which implies that, on average, about 70% of the sampled firms were audited by one of the Big4 audit firms during the period covered by the study. The mean value of AUDIND stood at 25,956,354 (₦ million) representing the

average value of audit fees paid to auditors by the sampled firms. Similarly, the average firm size of the entire sample is 560,626,527 (₦ Billion) representing the average total assets of the sampled companies. The result also shows a mean value of 0.8227 for LEV, meaning that on the average, the sampled companies rely more on external financing.

**Table 2 Correlation Matrix**

Covariance Analysis: Ordinary

Date: 05/17/17 Time: 20:30

Sample: 2006 2015

Included observations: 90

Balanced sample (listwise missing value deletion)

Correlation t-Statistic Probability	AUDQ	AUDIND	FSIZE	LEV
AUDQ	1.000000 ----- -----			
AUDIND	0.483812 5.156357 0.000**	1.000000 ----- -----		
FSIZE	-0.620644 -7.383026 0.000**	-0.196276 -1.867058 0.0653	1.000000 ----- -----	
LEV	-0.153614 -1.450028 0.1506	-0.094380 -0.884265 0.3790	0.289019 2.815970 0.0060**	1.000000 ----- -----

Source: Eviews 9.5 Output (2017) \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.2 presents the correlation analysis of the variables employed in the study. The essence of this table is to showcase how the variables are related among themselves. As observed from the result, a significant positive correlation ( $r=0.483812$ ) exists

between the dependent variable (AUDQ) and auditor independence (AUDIND). This suggests that auditor independence and audit quality moves in the same direction. On the other hand, the two control variables of firm size (FSIZE) and leverage (LEV)

have negative association with AUDQ. However, only the former is statistically significant implying that higher company size may likely be associated with lower audit quality, while leverage and audit quality moves in opposite direction. There

was no issue of high-correlation among the variables which would have been an indication of a problem of multicollinearity. Thus, the selected variables are properly suited for conducting the regression estimations.

**Table 3 Variance Inflation Factors**

Variance Inflation Factors  
Date: 05/17/17 Time: 20:54  
Sample: 1 90  
Included observations: 90

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.490466	401.0766	NA
AUDIND	0.001030	231.2758	1.042267
FSIZE	0.002416	118.0148	1.113983
LEV	0.001040	1.772502	1.086456

Source: Eviews 9.5 (2017)

Despite an indication of the unlikeliness of multicollinearity problem owing to the low correlation (r) values evident in Table 2, the Variance Inflation Factors (VIF) test for multicollinearity was further performed to confirm the assumption. As observed from table (i.e. table 4.2.1), all the three VIF values are very close to the value of 1 and far below the benchmark of 10. This is surely an indication of an absence of

multicollinearity between the independent variables.

This sub-section presents the regression results conducted using Eviews 9.5 econometrics computer software. The panel binary logit data estimation procedure was employed due to the dichotomous nature of the dependent variable (audit quality).

**Table 4 Result of the Binary Logit Estimation**

Dependent Variable: AUDQ  
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)  
Date: 05/17/17 Time: 20:26  
Sample: 2007 2016  
Included observations: 90  
Convergence achieved after 6 iterations  
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.072825	7.584661	0.405137	0.6854
AUDIND	1.409615	0.575445	2.449610	0.0143**
FSIZE	3.388377	1.166469	2.904815	0.0037*
LEV	-0.393728	0.650688	-0.605094	0.5451

McFadden R-squared 0.487162 Mean dependent var 0.696629

S.D. dependent var	0.462319	S.E. of regression	0.311532
Akaike info criterion	0.719338	Sum squared resid	8.249462
Schwarz criterion	0.831187	Log likelihood	-28.01056
Hannan-Quinn criter.	0.764422	Deviance	56.02112
Restr. deviance	109.2374	Restr. log likelihood	-54.61871
LR statistic	53.21630	Avg. log likelihood	-0.314725
Prob(LR statistic)	0.000000		
<hr/>			
Obs with Dep=0	27	Total obs	90
Obs with Dep=1	62		
<hr/>			

Source: Eviews 9.5 (2017) \*\* Significant at the 0.01 level; \*Significant at the 0.5 level.

Table 4.3 shows the outcome of the binary logit regression adopted for the study. From the table, the R-squared value, which shows the combined explanatory effect of the independent variables on the dependent variable (AUDQ) stood at 0.487 showing that the model has an explanatory power of about 49%. What this portends is that about 51% of the systematic variation in the dependent variable (AUDQ), proxied here using the dummy variable of Big4, was not accounted for by the model and have been contained by the error term. On the overall significance level of the model, the LR statistic (goodness-of-fit test) and corresponding probability value of 53.216 and 0.000001 (<0.01) respectively shows that the model passed the significance test at 1% (99%) level of significance. Thus, the explanatory variables were capable of explaining the variations in the dependent variable (AUDQ).

An evaluation of the slope coefficient of the explanatory variable (AUDIND) and the corresponding Z-statistics values revealed that auditor independence has a positive significant relationship with audit quality (AUDQ). This was depicted by the slope coefficient of 1.4096; and the z-Statistics (2.4496) and probability value of 0.0143 which are statistically significant at 0.05 (5%) levels. Thus, higher auditor independence will lead to a significant increase in the quality of audit.

On the two control variables included in the model, the result shows both positive and

negative coefficient signs for FSIZE (3.388) and LEV (-0.394) respectively which tallies with the *a priori* expectation. However, while the variable of FSIZE passed the significance test at 1% (p-value =0.0037 < 0.01), the variable of LEV did not. This means that the relationship between leverage and audit quality is not statically significant because the p-value of 0.5451 exceeds the 0.05 benchmark. Thus, a unit increases in firm size will ultimately lead to about 3.39 units positive change in audit quality, while a unit increase in leverage may decrease the likelihood of higher audit quality – though not significantly.

By way of testing the hypothesis, it was observed that AUDIND with a calculated t-value of 2.449661 is greater than the critical t-value of 1.96 at 5% level of significance under the two-tailed test which leads to the rejection of the null hypothesis and acceptance of the alternate hypothesis. Hence, it can be concluded that there is a significant linear relationship between auditor independence and audit quality of companies listed in the downstream sector of the Nigerian Stock Exchange.

Based on the outcome of the empirical analysis and in agreement with the *a priori* expectation, it was found that a positive significant relationship exists between audit independence and audit quality. What this indicates is that auditor independence is a strong determinant of audit quality among Nigerian oil and gas firms. This supports previous literature (Okolie, 2014 and

Babatolu et al, 2016) on the relevance of auditor independence in enhancing auditor's objectivity and implicationally, audit quality. Also, considering the proxies used to capture auditor independence (audit fees) and audit quality (Big4 or audit firm size); our result appears to contradict the argument of Sweeney (1994) that higher audit fees may result in impairment of auditor independence. However, our result can be justified since most previous studies (Copley, 1991; Wooten, 2003) show that larger (Big4) audit firms receive higher audit fees than smaller audit firms, and thus, they (Big4 audit firms) have higher incentives to ensure audit quality. Hence, since both audit fees and audit firm size (Big4) are often used as proxies for auditor independence and audit quality respectively (as in this study), our findings is in line with both those that found audit fees to be significantly related with auditor independence (such as Moiser, 1997; Okolie, 2014 and Oladipupo & Emife, 2016); as well as those that found Big4 to associated with higher audit quality (Enofe et al, 2013 and Ilaboya & Ohiokha, 2014). Our result is also consistent with The findings of Maria (2016); Moraes and Martinez (2015) which find that audit quality declines when the audit fee is abnormally low and becomes high when the audit fee is higher as auditors who receives high audit fees (such as the Big4 audit firms) will likely resist management interference and be mindful of the perceived threat to their independence while discharging their duties and thus, take necessary steps in order to preserve their reputation capital. In this respect, the result of this study is therefore expected as increased independence leads to high audit quality, allowing for lower Earnings management and higher earnings quality.

On the control variables, the variable of firm size showed positive significant relationship with audit quality. This goes to suggest that larger firms are more likely to have higher audit quality. This is because; due to their massive financial strength, they could afford

to engage the Big4 audit firms which studies show are most likely to charge more and deliver higher audit quality. This result is in tandem with that of Ilaboya and Ohiokha (2014). The other control variable, leverage, showed inverse non-significant relationship with audit quality – meaning that highly levered firms may likely be linked to lower audit quality. Most researchers are of the view that when the financial leverage and debt amount of a firm increases, it influences the reaction of investors since rational investors avoid risks. As a result, highly levered firms may likely engage in higher earnings management in order to retain existing investors, thereby reducing earnings and audit quality. This agrees with the results of Okolie (2014).

## 5.0 CONCLUSION AND POLICY IMPLICATION

This study examines the relationship between auditor's independence and audit quality in the Nigerian oil and gas companies. The independent variable (auditor independence) was captured using the natural logarithm of audit fees. Two control variables, firm size and leverage, was also included among-side auditor independence and were regressed against the audit quality variable (proxied using the dummy variable of Big4). The findings reveal that a direct strong relationship exists between auditor independence, firm size and audit quality; while leverage has a weak indirect relationship with audit quality. The implication of this result, based on the measurements employed, it that higher audit fees will encourage the auditor to resist external influence and focus on job performance, which will promote audit quality.

The study recommends a regulation on the disclosure of the components of the total audit fees and auditing pricing process in order to strike a balance between abnormally high fees and low audit fees. This is because, most auditing firms may accept audit fees at less than the market rate and make up for the deficit by providing

non-audit services which will jeopardize independence and reduce audit quality; while abnormally high audit fees may promote the bonding between the client and the auditor which will also affect independence. The disclosure and regulation of audit fees calculation will enhance auditor independence by providing public insight into the financial dependence of an auditor on a client and whether the fee corresponds with the complexity of the audit assignment. This will limit auditors from becoming financially dependent on an individual client and is expected to improve auditors' resistance against pressure exerted by the clients' management, thereby enhancing audit independence and audit quality.

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