AUDIT QUALITY ATTRIBUTES AND FINANCIAL PERFORMANCE NEXUS: FURTHER EVIDENCE FROM NIGERIA

Kenny Adedapo Soyemi[1], Mariam Abosede Tiamiyu[2] and Oluwatoyin Emily Omale[3]

[1,3]Department of Accounting, Olabisi Onabanjo University, Ago-Iwoye, Nigeria.

[2]Department of Accountancy, The Polytechnic, Ibadan, Nigeria.

Abstract

This study examines the influence of audit quality on financial performance of 40 quoted non-financial firms in Nigeria for 10 years from 2009 to 2018. Audit quality measures adopted include audit fees, audit committee experience, audit committee financial expertise, auditor tenure, and audit firm size while operating cashflow was adopted to proxy financial performance. Secondary data, panel in nature, were gathered from annual reports and audited accounts of these firms that were selected using a stratified sampling technique. Thereafter, ordinary least squares (OLS) was adopted to estimate the model specified for this study. The result revealed significant and positive influence of audit tenure and audit firm size on operating cashflow. Further, there were insignificant and positive relationships between audit fees, audit committee experience and operating cashflow, as well as insignificant and negative relationships between firm size and operating cashflow. Consequently, this study recommends sustained audit tenure regulation among professional firms, alongside continuous engagement of the Big4 firms to improve firms' financial performance. In addition, small and medium local indigenous professional accounting firms should adopt an expansion strategy, through mergers and acquisition to improve capacity, thereby ensuring consideration for sustained engagement by large firms (clients).

Keywords: *Audit fees, auditor tenure, audit committee expertise, firm size, performance*

1. Introduction

Firms, public or private, are established for specific objectives. Among these objectives, profit-making is predominant, especially for private firms, who must make enough revenue to cover costs, or at least equals costs, to continue operations. Therefore, the need to increase revenue and reduce costs in order to earn profit is at the heart of many firms, especially to remain competitive in the industry. Firms' performances may be financial or otherwise. Examples of non-financial performance indices are customer satisfaction, employee motivation, high market share, among others, while financial performance may be measured as profit after tax, profit before tax, return on assets, return on equity, positive and sustainable operating cashflow, etc. The financial statement is typically prepared, as stewardship report by management on how resources of the firm were used. It is a medium through which the financial health of the firm is reported and evaluated by members (shareholders). In order to get assurance on the credibility of the financial statements, shareholders engage auditors to assist in examining such financial statements and give a report on their truthfulness and fairness.

The Report of the 'Committee on Basic Auditing Concepts' published in 1973 by the American Accounting Association (AAA) cited in Soyemi (2014) defines audit as 'a systematic process of

objectively obtaining and evaluating evidences regarding assertions about economic events and actions to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to intended users'. In doing this, auditors are under the contractual obligation to conduct their engagements with due diligence, skill and care. Specifically, the auditors carry out audit procedures through testing, thereby gathering and evaluating sufficient and appropriate audit evidence in order to arrive at conclusions. These conclusions form the basis upon which the audit report is based. Audit of historical financial statements is conducted in compliance with laws, international standards on auditing and guidelines which guarantee effective and efficient audit engagement, alongside reduction of audit risk. Overall, these assure audit quality, as well. Audit quality is a goal that gives reasonable assurance to users of financial statements, with respect to assertions concerning assets, liabilities, equity, income and expenses, as contained therein. The findings regarding the relationship between audit quality and financial performance is mixed in the literature. While some studies (Wijaya 2020; Alsmairat, Yusoff, Saleh & Basnan 2018; Matoke & Omwenga 2016; Aobdia, Lin & Petacchi 2015) have confirmed positive and significant association, a few (Elewa & El-Haddad 2019; Temple & Ofurum 2016) have also provided empirical evidence to the contrary. Consequently, this study seeks to examine the influence of audit quality measures on financial performance among quoted non-financial firms in Nigeria. Aside from providing further empirical contribution in this area, the country provides a rich context for this study in the following ways. First, as an emerging country, quoted firms would be able to know specific audit quality measures that have significant effects on their financial performances. Second, with dominance of her audit industry by the Big4 accounting firms, their linkage with firm performance is empirically studied, consideration of their associated huge audit fees, compared to small and medium indigenous professional firms.

This paper is arranged as follows: Section 2 reviews related literature, alongside theoretical framework. Section 3 describes specific methodology adopted for the study. Section 4 presents results arising from data analyses and model estimation while Section 5 concludes the paper.

2. Literature Review
2.1 Conceptual review
2.1.1 Financial Performance
The financial performance of entities, public or private, governmental or non-governmental, plays an important factor, especially during evaluation and assessment. It is a basis for consideration by investors, potential and actual, as attraction of capital, as well as payment of dividend, interest, among others, depend largely on a positive and favourable financial performance. In finance literature, profit maximization objective of the firm is usually said to be inconsistent with wealth maximizing objective. This is because of the varying definitions of profit, which appear vague and skewed in a way, the latter seem to enjoy consensus among finance scholars; hence the basis upon which basic financial management decisions are adjudged. However, the profit maximization objective of the firm is still popular, despite its

apparent criticism. According to Santos and Brito (2012) cited in Phan, Lai, Le and Tran (2020), financial performance is a multi-dimensional concept with different approaches adopted by varying studies in its measurement. Among these measurement basis, profitability-related bases, that is, excess of income over expenses, is prominent (Iliemena & Okolocha 2019; Ogbodo & Akabuogu 2018; Ezejiofor & Erhirhie 2018; Matoke & Omwenga 2016). However, contrary to the shareholders' view of profitability, but similar to the study by Enekwe, Nwoha, and Udeh (2020), this study adopted the stakeholders' theory by adopting free cashflow approach, that is, ratio of cashflow from operating activities to total assets.

2.1.2 Audit and Audit Quality

Audit is lending credibility to the financial reporting process through an assurance engagement as to whether the financial statement is fairly presented in compliance with applicable financial framework. In order to guarantee its quality, audits are typically conducted in accordance with statutory legislations and international standards on auditing. Bahram (2007) cited in Patrick, Vitalis and Mdoom (2017) posits the need for auditors to deliver quality audit so as to meet expectations of users of accounting information. According to DeAngelo (1981) cited in Soyemi (2020), audit quality is defined as twin possibilities of an auditor detecting material misstatements in the course of audit engagement, as well as reporting such via an audit report. While the former describes competence of auditors, the latter refers to auditor independence. The study maintained the unobservable nature of audit quality, hence, its attendant difficulty in measurement and usage of proxies such as Big4 (Soyemi 2020; Ezejiofor & Erhirhie 2018), auditor independence (Phan, et al. 2020), audit fees (Enekwe, Nwoha & Udeh 2020; Soyemi 2014), auditor specialization (Soyemi, Afolabi & Obigbemi 2021), audit committee attributes (Ogbodo & Akabuogu 2018) among others. Besides, Esplin, Jamal & Sunder (2018) also defines audit quality as aggregate of factors to include audit plan, staff, timing, risk assessment and accounting knowledge of audit itself. Little wonder why Gaynor, Kelton, Mercer and Yohn (2016) had earlier equated audit quality with financial statement quality. The level of quality exhibited in the financial statements prepared by management and those charged with governance of entities and audited by auditors is a major factor usually considered by users of financial statements, especially potential investors, who may want to invest in such entities. The capital market functions on information which is timely, accurate, reliable and relevant. This is fulcrum of a quality audit. Aobdia, et al. (2015) state that audit quality provides support to capital markets in two ways, namely provision of positive signal to uninformed investors as well as lending integrity to information as contained in the audited financial statements. While studies in audit quality abound, the renewed interest is owing to its apparent absence evidenced in series of litigations alongside sanctions by regulatory authorities. Aside from a few major ones, like Enron, Worldcom in the US and Kanebo in Japan involving Anderson and Chuo Aoyama (part of PwC global network), witnessed earlier, new cases abound. These include Wirecard (in Germany), NMC Health (in United Arab Emirates), Carillion Construction Limited (in the United Kingdom) involving Ernst & Young (E&Y) and KPMG. According to Rahman, Ying, Zhu and Ji (2020), these trends of audit failures have damaging effects on clients (insolvency and

bankruptcy), audit firms (reputational losses, sanctions, etc.) and markets (loss of confidence, decline in capitalization, etc.) culminating into changes in policies and regulations (SOX).

2.2   Empirical Review

This section discusses previous studies conducted in developed economies, emerging economies, as well as Nigeria.

2.2.1   Evidence from Developed Economy

A cross-sectional study was conducted by Kyere and Ausloos (2021) who examine the effect of corporate governance on financial performance of 252 firms listed on the London Stock Exchange in the year 2014. Of the five explanatory variables, audit committee diligence (the frequency of meetings held during the year) is of interest as it is a measure of audit quality. Two measures of financial performance including Return on Assets (ROA) and Tobin's Q were adopted as dependent variables, with firm size and leverage as control variables. The results from the OLS estimation indicate among others a negative and statically significant association between audit committee diligence and ROA but insignificant with Tobin's Q. While firm size exhibit negative and significant association with financial performance (ROA and Tobin's Q), leverage shows a positive and significant relationship with ROA but negative and significant with Tobin's Q.

Similarly, Phan, Lai, Le, Tran and Tran (2020) investigated the influence of audit quality on performance among 228 firms listed on the Vietnam Stock Exchange. Unlike previous studies, both financial and non-financial performance measures were adopted. Financial performance includes profitability and growth rate while non-financial performance consists of customer loyalty and employee satisfaction. Overall, the study provides empirical evidence on the positive and significant influence of audit quality on both measures on high level with respect to financial performance and medium level as to non-financial performance. Further, Assad and Alshurideh (2020) also confirm comparable results during their study on the effect of twin-explanatory factors of audit and financial reporting qualities on financial performance, proxied with investment efficiency, among 150 firms in Gulf Cooperation Council (GCC) economies for 4 years from 2012 to 2015. Their findings were consistent with previous positive and significant relationship between audit quality, as well as financial reporting quality and investment efficiency.

While conducting a comparative study between northern and southern Europe, Caldeira (2019) explored the association between audit quality and performance among 90 listed firms in Finland, Norway, Denmark, Sweden, France, Belgium, Italy, Portugal and Spain. The measures of audit quality adopted in the study include auditor size, auditor change, auditor opinion, audit fees and board size. Except for board size, all other explanatory variables display positive and significant influence on firm performance with audit fees displaying more importance in reinforcing firms' performance across the two regions. Using 349 dataset, comprising of 45 listed financial and non-financial firms the Gulf Cooperation Council (GCC) countries, over a period of 6 years from 2005 to 2012, Pillai and Al-Malkawi (2018) also conducted a study on the

impact of internal corporate governance mechanisms of government shareholding, auditor-type, board size, corporate social responsibility and leverage. The estimates from the GLS regression indicate positive and significant impact of all explanatory variables (including auditor-type) on firm performance among listed firms in Gulf Cooperation Council (GCC) economies. Similarly, Sabri, Houcine, Ftiti and Masri (2018) examined the effect of audit quality on investment efficiency among 125 listed French firms for 8 years from 2008 to 2015. Contrary to previous results, findings from this study indicate an inverse relationship between audit quality and financial performance.

2.2.2   Evidence from Developing Economy

Within Pakistani context, a cross-sectional study was conducted by Khan, Parksh, Shamim and Ali (2021) on the influence of audit quality on performance of 150 out of 439 public listed firms that were in operation in 2018. Applying ordinary least square to estimate the model for the study, the initial results from the OLS indicated audit quality and efficiency as determinants of increase in performance of firms while foreign ownership bears a negative and significant association with performance. Further and in a bid to cure the heteskedacity problem associated with OLS estimates, weighted least square estimates reveal audit quality (auditor- type), efficiency and size as positive and significant determinants of financial performance while leverage and CEO duality appear negative and significance relationship with performance. The study reported an adjusted R^2 of 27% implying that 27% of variations in the financial performance of Pakistani listed firms are accounted for by audit quality.

Similarly, Sattar, Javeed and Latief (2020) examined the role of the product market competition (PMC) in moderating the relationship between audit quality and performance among manufacturing firms in Pakistan. From a population of 242 firms, 147 made up of the final sample size selected using stratified sampling technique. The study period is 10 years from 2008 to 2017. Thereafter, panel OLS was applied in estimating the study model. The study confirms a direct relationship between audit quality and firm performance. In addition, the results also indicate the moderating role of product market competition in the case of high product market competition but a non-moderating role with less product market competition. Wijaya (2020) also investigated the effect of audit quality on firm value (proxied with Tobin Q) among 410 purposively selected manufacturing firms in Indonesian for a period of 5 years from 2013 - 2017. Data were gathered from the annual reports and audited financial statements of these selected firms. Thereafter, OLS was adopted as the estimation technique to estimate the model specified for the study. The results reveal a direct relationship between firm value and audit quality measures having returned positive and significant values. However, the model was able to account for 8.1% of variations noticeable in firm performance of quoted Indonesian firms.

Baldavoo and Nomlala (2019) further provided empirical evidence on the effects of audit quality on performance in Ghana. In addition, the duo also evaluated the moderating effect of effective corporate governance on the relationship between audit quality and performance. The study gathered data on 36 banks for 8 years from 2010 to 2017 while applying the OLS as the

estimating technique. The results indicated that audit quality is an effective determinant of bank performance, having shown a positive and significant relationship with performance. In addition, such relationship is reported to be strengthened in the light of effective corporate governance mechanisms. Elewa and El-Haddad (2019) assessed the outcome of audit quality on firm performance (proxied with ROA and ROE) among 30 EGX non-financial firms in Egypt. Data were collated from these firms' financial statements for 5 years spanning 2010 to 2014. Similar to previous studies, OLS was adopted to estimate the model. However, audit quality measures of auditor experience and independence, though displayed positive association with both measures of performance (ROA and ROE), but both were statistically insignificant. Consequently, the study concluded that audit quality plays no role in improving the financial performance of listed firms in Egypt.

Further, Matoke and Omwenga (2016) investigated the influence of audit quality measures to include audit firm size, auditor independence, audit team attributes and auditor experience on financial performance (ROE and ROA) of listed companies in Nairobi Securities Exchange. However, unlike previous studies which largely utilized only secondary data, this study adopted a descriptive research design using a semi-structured questionnaire administered on 89 respondents comprising of Certified Public Accountants in public practice and serving the 9 listed companies in Kenya. In addition, secondary data were also collated from annual reports and audited accounts of selected companies. The results indicate largely the direct association between audit quality measures (audit firm size=80%, auditor independence=96%, audit team attributes=81% and auditor experience=82%) and profitability of Kenyan firms. Using Malaysian data, Sayyar, Basiruddin, Rasid, and Elhabib (2015) also examined the impact of audit quality on firm performance (ROE and Tobin Q) among 542 out of 980 firms quoted on Bursa Malaysia for 10 years from 2003 to 2012. The results displayed a wide variance between the two measures of performance adopted for this study. With an adjusted R^2 of 11%, both audit fees and leverage displayed negative and significant relationship while firm size shows a positive and significant association with ROA. On the other hand, while audit fees show a positive and significant association, leverage depicts a negative and significant relationship with Tobins Q, accounting for 6.1% variations in Tobins Q.

2.2.3 Evidence from Nigeria

Ado, Rashid, Mustapha and Ademola (2020) examined the influence of audit quality on performance using 84 non-financial firms for 9 years spanning 2010 to 2018. This culminated into 756 dataset. Thereafter, multiple regression analysis was employed to estimate the model specified for the study. The results depict a positive and significant influence of auditor size and independence while the two control variables, that is, firm growth and age displayed negative and significance association with ROA, the measure for financial performance. Overall, the explanatory variables only explained 17% of variations in performance of these quoted firms. Further, Amahalu and Obi (2020) also investigated the effects of audit quality, proxied with audit committees' attributes to include size, independence and expertise, on financial performance

(ROA) using all quoted firms in the conglomerate sub sector of the Nigerian Stock Exchange. The duration of study was 10 years from 2010-2019. Similar to previous studies, secondary data that is panel in nature were gathered from the audited accounts of these selected firms. The results indicated that audit committee size, independence and expertise appear positive and significant relationship with return on assets. This is similar to firm size as a control variable. The adjusted R^2 has a higher value (45%) compared with that of Ado, *et. al.* (2020).

Still within the Nigerian context, Enekwe, Nwoha, and Udeh (2020) also provided empirical evidence on the relationship between audit quality and performance using a sample size of 24, out of a total of 80 quoted manufacturing firms. Audit quality measures that were adopted are auditor independence, size of audit committee, audit fees while ROA measures firm performance. Leverage, firm size and cash flow from operating activities were adopted as control variables. Auditor independence, size of audit committee display positive and significant relationship while audit fees bear negative and significant association with firm financial performance. Control variables of leverage depict negative and significant but firm size and cashflow from operating activities bear positive and significant relationship with firm performance. Using the banking industry as context of study, Ugwu, Aikpitanyi and Idemudia (2020) examined the influence of audit quality on firm performance among all 15 quoted commercial banks for a period of 7 years from 2011 to 2017. Audit firm size, joint audit and audit fees constitute the explanatory variables while ROA represents measures of performance. With an adjusted R^2 value of 7%, audit firm size appears positive and statistically significant with ROA, joint audit displays negative and significant relationship with ROA while audit fees influences ROA positively but insignificant. Another sectorial study was conducted by Iliemena and Okolocha (2019) who examined audit quality on firm performance among all 24 quoted firms in the industrial goods sub sector. The period of study was 7 years form 2012-2018. With an adjusted R^2 value ranging from 20.8% to 90.9%, the further provided empirical evidence on the positive and significant relationship between audit quality measures and financial performance as both audit firm rotation and audit fees display positive and significance influence on firm performance.

Furthermore, and similar to that of Ugwu, Aikpitanyi and Idemudia (2020), Ezejiofor and Erhirhie (2018) and Ogbodo and Akabuogu (2018) also conducted studies on the effect of audit quality on firm performance among deposit money banks in Nigeria. Ezejiofor and Erhirhie (2018) used 15 banks for 8 years from 2009 to 2016 and found a positive and significant relationship between size of audit committee, while audit committee independence displays positive but insignificant relationship with firm performance with adjusted R^2 value of 0.3%. Ogbodo & Akabuogu (2018) adopted similar methodology but used 16 banks for 10 years from 2008 to 2017. Specifically, all explanatory variables exhibited significant association with firm performance, with audit firm size and audit committee independence showing positive while size of audit committee showing negative signs in relation to financial performance.

2.3 Theoretical Framework

Among the various theories upon which this study may be hinged upon, the following two (2) are considered predominant. These are theory of economies of scale and agency theory. These are discussed hereunder.

First is the theory of Economies of scale describes cost advantage accruing to a firm as production becomes efficient. This is as a result of the increase in output; hence, the spread of cost is made possible over massive output. It is regarded as a cost competitive advantage associated with large firms, being able to reduce unit cost, culminating into an increase in profit margin. Consequently, large firms are linked with positive and significant financial performances.

Second is the agency theory. No doubt, the agency theory is underlying auditor engagement by firms. The shareholders, as resource owners, are principals whose interests need to be protected by directors, who are agents responsible for the day-to-day management of the firm. The shareholders then engage auditors to lend credibility to the stewardship report prepared by the agents (directors). Consequently, the auditor is expected to apply due diligence and skill in discharging his duties by examining financial statements prepared by management and giving an opinion as to whether in all material respect, such report is free from material misstatements. By so doing, quality audit engagements must reduce information asymmetry and gives credibility to financial information.

3. Methodology

The study used an *ex post facto* research design which makes use of existing data not necessarily amassed for this study. In addition, it is not possible for the researchers to manipulate or exercise any authority over the available data. The data used for this study are panel and secondary data obtained from the audited financial statements of 40 quoted non-financial firms listed on Nigerian Stock Exchange (NSE) out of 115 which makes up the total population.

3.1 Variable Description and Measurement

The descriptions alongside measurement of studied variables are as given in table 1 below:

Table 1: Variable Description and Measurement

Variables	Symbol	Measurement
Dependent:		
Financial Performance: Operating Cash Flow	OPCF	This is the ratio of operating cash flow or free cash flow to total assets
Independent:		
Audit Fees	AFES	Natural logarithms of audit fees as charged by the external auditor

Audit Committee Experience	AUCE	It is measured as the number of years of the committee
Audit Committee Financial Expertise	ACFE	This is the proportion of members with financial expert or that are financially literate to the total number of member.
Audit Tenure	AUTN	Dichotomous variables which is equal to 1 if the same auditor in year t-1 is same as in year t, otherwise zero.
Audit Firm Size	AUFS	Dichotomous variables which is equal to 1 if the auditor is one of the BIG 4 audit firm, otherwise zero.
Control Variables		
Firm size	FISZ	This is measured as the natural log of total assets

Source: Researchers' Compilation (2021)

3.2 Model Specification and Estimation Techniques

This study adapted the model of Ojeka, Iyoha, and Obigbemi (2013) to estimate the effect of audit quality on financial performance of quoted non-financial firms in Nigeria. It is as written in equation 1.1 below:

$$OPCF_{it} = \beta_0 + \beta_1 AFES_{it} + \beta_2 AUCE_{it} + \beta_3 ACFE_{it} + \beta_4 AUTN_{it} + \beta_5 AUFS_{it} + \beta_5 FISZ_{it} + \mu_{it} \text{ ------ } 1.1$$

Where: OPCF = operating cash flow; AFES = audit fees; AUCE = audit committee experience
ACFE = audit committee financial expertise; AUTN = audit tenure; AUFS = audit firm size
β_0 = constant/intercept; β_1 - β_5 = slope of the independent and controls variables

In order to estimate the model as specified in equation 1.1, thereby analysing the relationship between audit quality and performance, this study adopted OLS pooled, fixed and random effect model in analyzing the data collected. The time series and cross-sectional data were analyzed based on fixed and random effect model, while Hausman test was used to select the best model. Fixed effect method is used to control all the static characteristics of the firms included in the study over a fixed period of time following the assumption of time series data. This technique removes biasness from the data and provides statistically better result by explaining only the variation within the sample. The Random effect method is applied on cross sectional data when the characteristics of sample differ. As one of the techniques of linear regression, its main function/goal is to closely fit a function with the data so as to minimize the sum of square errors from the data.

4. Results and Discussion

This section reveals statistical process employed in this study. The pre-estimation test such as descriptive statistics, which explains the individual behavior of each variable and how they are distributed, as well as, correlation which test the association among the variables used in this

study. Thereafter, results of estimation of the studied model is presented alongside a discussion of findings.

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics of variables as used in this study.

Table 2: Descriptive Statistics

	OPCF	AFES	AUTN	AUCE	ACFE	AUFS	FISZ
Mean	0.116589	4.152487	0.665000	0.394854	2.287500	0.760837	7.359218
Median	0.107800	4.221674	1.000000	0.500000	2.000000	0.778151	7.381741
Maximum	0.793514	5.014100	1.000000	0.833333	5.000000	0.903090	9.050950
Minimum	-0.336990	3.000000	0.000000	0.000000	0.000000	0.602060	5.894102
Std. Dev.	0.132910	0.427099	0.472582	0.143236	0.867020	0.047881	0.650508
Skewness	0.317305	-0.497781	-0.699167	-0.634868	-0.474351	-2.521137	-0.019070
Kurtosis	5.215577	2.763915	1.488834	3.095812	2.877638	8.616780	2.377494
Jarque-Bera	88.52518	17.44802	70.64931	27.02350	15.25015	949.5457	6.482813
Probability	0.000000	0.000163	0.000000	0.000001	0.000488	0.000000	0.039109
Sum	46.63559	1660.995	266.0000	157.9417	915.0000	304.3347	2943.687
Sum Sq. Dev.	7.048344	72.78309	89.11000	8.186144	299.9375	0.914734	168.8413
Observations	400	400	400	400	400	400	400

Source: Authors' Computations (2021)

Table 2 reveals the descriptive statistics of the variables used in this study. It is shown that operating cash flow (OPCF) which measures the ratio of operating cash flow to total assets has a mean value of 0.12 and a median value of 0.11 with a standard deviation value is 0.13. Thus, this implies that the data are not too far from each other. Audit fees (AFES) has a mean value of 4.15, median value of 4.22 with a standard deviation as 0.42. This shows that the data are far from each other. Audit tenure (AUTN) has a mean value of 0.66 and median value of 1.0 while the standard deviation is 0.47. This shows that the data are not far from each other. Audit committee experience (AUCE) has a mean value of 0.39 and a median value of 0.50 while the standard deviation value is 0.14. Audit committee financial expertise (ACFE) has a mean value of 2.28 and a median value of 2.0 while the standard deviation value is 0.86. The standard deviation value is far from the mean; this reflects the level of variation in the data. Audit firm size (AUFS) has a mean value of 0.76 and median value of 0.77 while the standard deviation value is 0.04. This shows that the data are far from each other. The control variable, that is, firm size (FISZ) has a mean value of 7.36 and median value of 7.38 while the standard deviation value is 0.65 which shows that the data is very far from each other.

The independent variables (audit fee, audit tenure, audit committee experience, audit committee financial expertise, audit firm size and firm size) are negatively skewed while the dependent variable (operating cash flow) is positively skewed. On the extremeness of values, most of the data are platykurtic, that is, with less extreme values while operating cash flow (OPCF), audit committee experience and audit firm size are leptokurtic variables with more extreme values.

4.2 Correlation Analysis

The result of the correlation analysis is as presented in table 1.3 below:

Table 3: Correlation Matrix

	OPCF	AFES	AUTN	AUCE	ACFE	AUFS	FISZ
OPCF	1.00						
AFES	-0.02	1.00					
AUTN	0.08	0.27	1.00				
AUCE	-0.02	-0.15	-0.18	1.00			
ACFE	-0.03	-0.11	-0.19	0.96	1.00		
AUFS	0.05	0.12	-0.07	-0.02	0.24	1.00	
FISZ	0.06	0.58	0.36	-0.24	-0.19	0.17	1.00

Table 3 revealed the correlation matrix of the variables of the variables used in this study. Operating cash flow (OCF) has a positive relationship with audit tenure and firm size but negative relationship with audit fee, audit committee experience, audit committee financial expertise and audit firm size.

4.3 Model Estimation and Test of Hypothesis

Table 4 below depicts regression estimates of the pooled, fixed and random effects model based on the static OLS panel approach, alongside, the results of the L-M test as well as Hausman' test.

Table 4: Regression Estimates

Variables	Pooled		Random		Fixed	
DV=OPCF	Coef.	t-value	Coef.	z-value	Coef.	t-value
AFES	-0.031	-1.574	0.004	0.134	0.019	0.588
AUCE	0.230	1.215	0.251	0.951	0.281	0.877
ACFE	-0.040	-1.294	-0.048	-1.131	-0.053	-1.055
AUTN	0.086	1.894***	0.070	1.888**	0.057	1.465***
AUFS	0.077	-1.669***	0.076	-1.825**	0.091	-1.973**
FISZ	0.025	1.826***	-0.004	-0.174	-0.025	-0.959
Const.	0.056	0.607	0.143	0.967	0.260	1.302
Adj. R^2	0.007298				0.432	
F/Wals (p-value)	1.479113 (0.1830)		0.801274 (0.569365)		7.232 (0.0000)	
L-M test	276.6149 (0.0000)					
Hausman test			3.407561 (0.0262)			

Source: Authors' Computation (2021)

***significant at 10%; ** significant at 5%; * significant at 1%

From the table, L-M results 276.6149 (p=0.0000) supports pooled estimates while Hausman's test 3.407561 (p=0.0262) which compares fixed and random effects is in support of the random effect. Therefore, the latter becomes the estimates upon which this study is based. Of all the explanatory variables, auditor tenure appears positive and statistically significant to operating cashflow. Audit

fees, audit committee experience, though positive appear insignificant. This is similar to audit committee financial expertise which appears negative but insignificant as well. However, firm size (natural log of total assets) as the only control variable depict negative and statistically significant to financial performance.

4.4 Discussion of Findings

The findings, rooted in the results, emanating from this study are largely consistent with previous scholarly studies of Khan, et al. (2021) and Sattar, Javeed and Latief (2020). Both studies provide empirical evidence on effect of audit quality on financial performance (ROA) with Big4 (auditor-type, audit firm size) among others, significantly and positively related to ROA in Pakistan. This is similar to a positive and significant association returned for this study. In addition, Ogbonna, Onuoha, Christopher and Ojeaburu (2020) in their study, using Nigerian data, reported a significant and positive influence between size of audit firm (Big4) and audit committee and EPS but an insignificant relationship between the duo and ROA. Earlier, Aledwan, Yaseen and Alkubisi (2015) also reported a direct association between audit quality (audit firm size and auditor independence) and net profit margin among Jordanian firms. Aside studies using non-financial firms, studies like that of Ugwu, et al. (2020), Ezejiofor and Erhirhie (2018) and Tyokoso, U-ungwa and Ojonimi (2017) were conducted using quoted banks as unit of analyses to validate the claim of positive and significant relationship between measures of audit quality and financial performance. Ugwu, et al. (2020) showed a positive and negative but significant association between audit firm size and joint audit respectively and ROA, insignificant negative relationship was returned for audit fees. Ezejiofor and Erhirhie (2018) reported a significant and negative relationship between size of audit committee and an insignificant and positive relationship between independence of audit committee and ROA. Similarly, findings from Tyokoso, et al. (2017) indicate a significant and positive relationship between audit firm size and Tobin Q, an insignificant and positive relationship between audit tenure and Tobin Q, a significant and negative relationship between client importance and Tobin Q, an insignificant and negative relationship between auditor specialisation and Tobin Q.

However, a few inconsistencies were noticed in the studies of Kyere and Ausloos (2021), Amahalu and Obi (2020), Elewa and El-Haddad (2019) as well. Specifically, Kyere and Ausloos (2021), using London data, reported a negative and significant impact of audit quality, proxied with committee diligence and both measures of performance (ROA and Tobin Q). Further, Amahalu and Obi (2020) while confirming the positive impact of audit quality on financial performance in Nigeria, reported positive and significant relationship between audit committee financial expertise and ROA. This is unlike this study that shows a negative, though insignificant association with ROA. This is similar with that of Elewa and El-Haddad (2019) who examined the effect of audit quality and performance among EGX100 in the year 2018. Though positive, auditor experience (Big4) appears insignificant with both measures of financial performance (ROA and ROE), while auditor independence displayed negative and insignificant relationship with ROA and ROE.

5. Summary and Conclusion

This study provides empirical evidence to support the claim on the positive and significant influence of audit quality on financial performance of quoted firms in Nigeria. Though audit quality attributes such as audit fees, audit committee experience, audit committee financial expertise are insignificant and positive, auditor tenure and audit firm size are predominant audit quality factors, in relation to improving return on assets of quoted Nigerian firms. Impliedly, proper monitoring and sustained regulation of auditor tenure, alongside continuous engagement of Big4 professional accounting firms are determinants of financial performances. Besides, small and medium local indigenous professional accounting firms should adopt an expansion strategy, through mergers and acquisition to improve capacity, thereby ensuring consideration for sustained engagement by large firms (clients).

References

Ado, A. B., Rashid, N., Mustapha, U. A. & Ademola, L. S. (2020). The impact of audit quality on the financial performance of listed companies Nigeria. *Journal of Critical Reviews*, *7*(9), 37-42.

Al-ahdal, W. M. & Hashim, H. A. (2021). Impact of audit committee characteristics and external audit quality on firm performance: evidence from India. *Corporate Governance: The International Journal of Business in Society*.

Aledwan, B. A., Yaseen, A. A. B, & Alkubisi, A. (2015). The role of audit quality on the relationship between auditor's and financial performance quality of selected cement firm in Jordan. *International Journal of Business and Social Science*, *6*(12), 138-146.

Alsmairat, Y. Y. Yousef., Yusoff. W. S., Fairuz, M., Saleh, M. & Norida. B. (2018). International diversification, audit quality and firm value of Jordanian public listed firm. *Academy of Accounting and Financial Studies Journal* 22 (Special Issues), 1-7

Amahalu, N. & Obi, J. C. (2020). Effect of audit quality on financial performance of quoted conglomerates in Nigeria. *International Journal of Management Studies and Social Science Research*, *2*(4).

Aobdia, D., Lin, C. J. & Petacchi, R. (2015). Capital market consequences of audit partner quality. *The Accounting Review*, *90*(6), 2143-2176.

Assad, N. F. & Alshurideh, M. T. (2020). Financial reporting quality, audit quality, and investment efficiency: evidence from GCC economies. *WAFFEN-UND Kostumkd. J*, *11*(3), 194-208.

Baldavoo, K. & Nomlala, B. C. (2019). Audit quality and corporate governance as determinants of banks' performance in Ghana. *Acta Universitatis Danubius. Œconomica*, 15(7).

Caldeira, C. D. C. (2019). The impact of audit quality in companies performance: A comparison between Northern and Southern Europe (Doctoral dissertation).

Elewa, M. M. & El-Haddad, R. (2019). The effect of audit quality on firm performance: A panel data approach. *International Journal of Accounting and Financial Reporting*, *9*(1), 229-244.

13

Enekwe, C., Nwoha, C. & Udeh, S. N. (2020). Effect of audit quality on financial performance of listed manufacturing firms in Nigeria (2006-2016). *Advance Journal of Management, Accounting and Finance*, *5*(1), 1-12.

Esplin, A., Jamal, K. & Sunder, S. (2018). Demand for and assessment of audit quality in private companies. *Abacus*, *54*(3), 319-352.

Ezejiofor, R. A. & Erhirhie, F. E. (2018). Effect of audit quality evidence from. *International Journal of Trend in Scientific Research and Development,* 2(6), 1235-1244.

Gaynor, L. M., Kelton, A. S., Mercer, M. & Yohn, T. L. (2016). Understanding the relation between financial reporting quality and audit quality. *Auditing: A Journal of Practice & Theory*, *35*(4), 1-22.

Iliemena, R. O. & Okolocha, C. B. (2019). Effect of audit quality on financial performance: evidence from a developing capital market. *International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)*, *6*(3), 191-198.

Khan, M. N., Parksh, R., Shamim, M. & Ali, S. (2021). Does audit quality matter for firm performance? empirical evidence from Pakistani public listed companies. *Elementary Education Online*, 20(5), 3953-3960.

Knechel, W. R. (2016). Audit quality and regulation. *International Journal of Auditing*, *20*(3), 215-223.

Kyere, M., & Ausloos, M. (2021). Corporate governance and firms financial performance in the United Kingdom. *International Journal of Finance & Economics*, *26*(2), 1871-1885.

Matoke, V. N. & Omwenga, J. (2016). Audit quality and financial performance of companies listed in Nairobi securities exchange. *International Journal of Scientific and Research Publications*, *6*(11), 2250-3153.

Monametsi, G. L. & Agasha, E. (2020). Audit quality and firm performance: evidence from Botswana and Uganda. *Journal of Accounting, Finance and Auditing Studies*, 6(4), 79-95.

Ogbodo, O. C. & Akabuogu, N. J. (2018). Effect of audit quality on the financial performance of selected banks in Nigeria. *International Journal of Trend in Scientific Research and Development (IJTSRD)*, *3*(1).

Ogbonna, G., Onuoha, T. Christopher, I. & Ojeaburu, F. (2020). Audit quality and financial performance of quoted firms in Nigeria. *West African Journal of Business and management sciences*, *9*(4), 14-43.

Patrick, Z., Vitalis, K. & Mdoom, I. (2017). Effect of auditor independence on audit quality: A review of literature. *International Journal of Business and Management Invention*, *6*(3), 51-59.

Phan, T., Lai, L., Le, T., Tran, D. & Tran, D. (2020). The impact of audit quality on performance of enterprises listed on Hanoi stock exchange. *Management Science Letters*, 10(1), 217-224.

14

Pillai, R. & Al-Malkawi, H. A. N. (2018). On the relationship between corporate governance and firm performance: Evidence from GCC countries. *Research in International Business and Finance*, *44*, 394-410.

Rahman, J. M., Ying, Y., Zhu, L., & Ji, P. (2020). What do we know about audit failure so Far? *Accountancy Business and the Public Interest*.

Sabri B., Asma H., Zied F. & Hatem M. (2018). Does audit quality affect firms' investment efficiency? *Journal of the Operational Research Society*, 69: 1688-1699

Soyemi (2014). *Auditing and Assurance Services*. Ibadan: Leksilicon Publishing Company Limited.

Soyemi, K. A. (2014). Clients'/Auditors' attributes and external audit fees among listed nonfinancial companies in Nigeria. *The Business & Management Review*, *5*(1), 131.

Soyemi, K. A. (2020). Internal corporate governance practices and choice of external auditor in Nigeria: A logistic regression analysis. *Binus Business Review*, *11*(1), 9-16.

Soyemi, K. A., Afolabi, O. & Obigbemi, I. (2021). External audit quality and clients' corporate governance mechanisms in Nigeria. *International Journal of Commerce and Finance*, *7*(1), 141.

Soyemi, K., Olufemi, O. & Adeyemi, S. (2020). External audit (or) quality and accrual earnings management: Further evidence from Nigeria. *Malaysian Management Journal*, *24*, 31-56.

Temple, M. & Ofurum, C. (2016). Audit committee characteristics and quality of financial reporting in quoted Nigerian banks. *International Journal of Advanced Academic Research,* 2(5), 2488-9849.

Tyokoso, G. M., U-ungwa, M. M. & Ojonimi, A. G. (2017). Effect of audit quality on performance of deposit money banks (DMBs) In Nigeria. *Nigerian Journal of Management Sciences Vol*, *6*(1).

Ugwu, C. C., Aikpitanyi, L. N., & Idemudia, S. (2020). The effect of audit quality on financial performance of deposit money banks (evidence from Nigeria). *Journal of Economics and Business*, *3*(1).

Wijaya, A. L. (2020). The effect of audit quality on firm value: a case in Indonesian manufacturing firm. *Journal of accounting, finance and auditing studies*, 6(4), 1-15

15