European Scholar Journal (ESJ)
Available Online at: https://www.scholarzest.com
Vol. 5 No. 11 November 2024
ISSN: 2660-5562

AUDIT QUALITY AND MARKET PERFORMANCE: ARDL APPROACH

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Article history:
Received: 28th August 2024
Accepted: 26th September 2024

Abstract:
The study examined the effect of audit quality on market performance using data from manufacturing firms quoted on the Nigeria Stock Exchange for the period 2012 to 2022. Ex-post facto research design and census sampling method was adopted on data sourced from Firms financial statement.Market performance measured by Tobin Q and market price and three audit quality variables of audit firm size, audit tenure and audit fees were adopted. Random effect strategy was adopted from Hausmann Test. Autoregressive distributive lag was used to establish short run and long run effect while Granger causality test was used to determine the direction of causality. Findings indicate that causality runs from Audit firm size to market price and from audit fees to Tobin Q. Simultaneously, causality run from Market price to audit tenure indicating that investor's perception of audited financial statements can spur tenure elongation for auditors. In terms of relationship, audit fees and audit tenure significantly and positively affect Tobin Q, but the effect of audit firm size is insignificant.Audit firm size, audit fees and audit tenure all exert significant effects on market price although the effect of audit firm size is negative, while those of audit fees and audit tenure are positive. Based on findings we recommend that regulators should formulate. The implication of the findings is that audit firm size does not influence market reactions to publish financial statements and that experienced auditors with quality work can be retained as this does not impair market reaction. Also, proper remuneration of auditors is a spur to quality auditing

Keywords: Audi Fees, Audit Tenure, Audit Firm Size, Market Price, Tobin Q

INTRODUCTION

Many businesses are driven by the motive of profit and wealth maximisation. The evaluation of the extent of achievement of these objectives require performance evaluation of these entities. According to Setiyawati et al. (2020) financial statements which convey information about the transactions of an enitity provides the basis of evaluation of the economic position of the business.Financial statements therefore provide the basis of measurement of performance and attainment of economic goals. However, for financial statements to serve this purpose it must be objective, reliable, timely and accurate. The extent to which these qualities expected from a financial statement are fulfilled have been a subject of debate. Globally, the landscape is littered with business failures and many blue chip companies (Tyco, Xerox, Enron, Intercontinental bank, Cadbury, Oceanic) that failed soon after publication of huge profits.Exacerbating the problem is that these failed entities were given clean bill of health by auditors who were assigned the statutory responsibility of examining the financial satements and reporting on the truth and fairness of the financial reports. Prior studies suggest that agency conflict, failure of corporate governance, weak institutions and lack of enforecemnet of regulation are responsible for this malaise. The latitude given to managers and the selfish motive encourage them to indulge in earnings management(Tariverdi, et.al. 2012) and falsification of accounting reports. However, the failure of auditors to curtail these excesses has also brought to limelight the question of the quality of audit being performed. A qualitative audit is expected to have detected these anomalies on financial statements and ring a 'warning bell' on the potential failure of these firms. Conequently, the obvious malfeanse in the reporting process, corporate governance failure and decrease on audit quality has heightened the fear (about the quality of financial reports and the activity of auditors thereon) of many stakeholders who rely on financial statements to make decisions. These concernshave motivated many empirical studies on the subject of the quality of audit although with mixed result. In Nigeria, many empirical studies (Etukudo and Azubuike, 2022. Nkechi, Ifureze and Anichebe, 2022; .Iorpev, Anande and Oto, 2022;Musa, 2022; Abba and Sadah, 2020)have been carried out on the subject of audit quality and performance. The time frame and methodologies from prior studies are mainly short term strategies wthout x-raying the long term implications of audit quality on the performance of firms. This study is motivated by the need to fill the gap created by the lacuna of mixed results, short term methodologies and time frame and therefore employs a long term strategy of

autoregressive distributive lag under the panel integration framework.

Theoretical Perspectives

Audit quality is closely linked to earnings manageent and auditing function is primed to curtail its effects. Many earnings management literature fingers agency conflict as the bedrock of earnings management. Agency conflict embedded in **Agency theory** (Jensen and Mecklings, 1976) is viewed as lack of goal congruence between principal(owners) and the agent (managers) who abandon the objectives set by the principal to pursue selfish interests which is in conflict with that of the owners. However, to ensure goal congruence the principal must institute monitoring mechanisms such as corporate governance and audit function (Jensen and ecklings, 1976). The positive accounting theory (Watts and Zimmeran) in support of the agency conflict suggested that manager's act in that manner when bonus is tied to compensation, at the risk of violation of debt covenants or political cost motivations. However, **the Stewardship theory** in disagreement argues that managers will not act out of selfish motives but rather will remain good stewards pursuing the objective of the owners because of the psychological satisfaction to be derived in acting so**.**First, Managers action in falsifying financial reports creates asymmetric information in the market place because information contained in the reports does not reflect reality as Managers are in possession of superior information which reflects reality. Asymmetric information" refers to when one party in a transaction is in possession of more information than the other. In certain transactions, sellers can take advantage of buyers because asymmetric information exists whereby the seller has more knowledge of the market than the buyer. Thus, in the stock market, the managers of an enterprise is in possession of information more than the investors. This imbalance of information creates ambiguity in the market place. **The signalling theory** developed by Michael Spence (1970) is one of the strategies commonly applied to address the issue of asymmetric information. The theory of signaling states that sellers send signals to consumers that assist them in judging the quality of the products. In the stock market, Managers who are the sellers of sharess give signals to buyers (investors) to help them determine the price. This is done through financial reports. Thus signalling could be a motivation for earnings manageent to influence market situation. To ameliorate this problem of poor quality financial information auditors are engaged to carry out due diligence and make a statutory report on the truth and fairness of the financial report.The **theory of inspired confidence** recognizes the auditor as a confidential agent who derives his function from the need for expert and independent examination as well as the need for an expert judgment supported by the audit work. This theory offers a connection between the users' needs for reliable financial reports and the ability of the audit work to meet those needs. Thus, auditors are required to know that the public expects a low rate of audit failure. Therefore, auditors are required to plan and perform their audit in a manner that will reduce to the barest minimum the risk of undetected material misstatements. The auditor is under obligation to conduct his work in a manner that does not betray his confidence.

Conceptual Framework

Audit Fees

Smii (2016) defines audit fee is audit remuneration received by the auditors in discharge of their duties for the company or client. The researcher continues that the audit remuneration received by the auditor will determine the quality of service that will be provided by auditors in the discharging their duties in the company. Enofe, et al (2012) argue that audit fee is the amount of money received by an audit firm in carry out audit assignment.Audit Fees can be defined as the amount charged to a client to conduct specific services by the accountant. The fees may vary by size or based on the type of service provided but there have been many questions from researchers whether it affects audit quality. The amount of audit fee can vary depending on the assignment risk, the service complexity, the level of expertise required, the cost structure of Public Accountant Firm and other professionalconsiderations (Rahmina & Agoes, 2014)

Audit Tenure

An audit firm's tenure can be defined as the length of time an auditor performs services for a client. Risk associated with the loss of independence is increased once client relationships are maintained for a long period of time. On the other hand, other individuals believe having a lasting and faithful relationship will augment independence. Auditor tenure is described as the length of time between auditor and client relationships (Okolie, 2015). A lengthy tenure between the audit firm and her client may weaken the audit strength and less caution and compromise on the part of the auditor in the face of prevailing familiarity

Audit Firm Size

The size of audit firm has been used as a surrogate for audit quality, that is, large audit firms have a reputation to safeguard and 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 (Mahdi & Ali, 2009). Therefore, the size of audit firm is an important characteristic that reflects auditor independence. Thus, the issue of maintaining auditor independence is more crucial for smaller firms than larger firms.

Firm Size

Firm size is defined as the value of the asset which the company has at any particular time

Firm size is defined as the value of the asset which the company has at any particular time (Babalola 2013) argues that the larger a firm is, the more the influence it has on its stakeholders, also large firms tend to outperform small firms. Setiadharma and Machali (2017) posited that a big firm size is an indicator of a good growth of the firm; this will give positive signal to investor, which leads to an increase in firm value. Firm Size can be measured using the natural logarithm of total assets and serves as a control variable, the variable that is neutral and can be controlled so that the relationship of independent variables with the dependent variable is not influenced by factors outside the research. The natural logarithm of total assets is used when other variables measured by the ratio of scale that can be interpreted by regression.

Marketing measures of firm performance

TOBIN Q

Tobin's Q was introduced in 1969 and calculate market price as market value of equity plus book value of debt divided by book value of assets. The decision rul is is that if the Tobin's q value is between 0 and 1, the firm assets value is higher than the market value of the firm shares, this by implication the firm stock price is undervalued and if the value is higher than 1, the firm assets value is lower than the value of the firm stocks, meaning the firm stock price is overvalued. Tobin Q ratio measures the relationship between the market value of a firm and its replacement value, i.e. the replacement cost. Theoretically, over long-term Tobin ratio converges to one. Tobin's Q is similar to the market to value ratio with the difference that when calculating Tobin's Q instead of using the book value of physical assets, the replacement cost of physical assets is used.

Market Price Per share

Market price per share is the most recent price of a single share in a publicly traded stock market price per share is a influenced by supply and demand when more people are trying to buy a stock than sell it the market price will rise. Market price per share is the price that a stock can be readily purchased or sold in the current market place (Nehe & Bajaj, 2017). It is the going price of a share of stock. The market price per share may vary everyday due to changes and fluctuations in the stock market and economy.

Empirical Review

Etukudo and Azubuike (2022) focused on the audit quality and financial performance of deposit money banks' financial report in Nigeria. Audit fee, audit firm size and audit tenure were used as independent variables while earnings per share was used to measure performance. Findings revealed that (i) There is a positive relationship between audit fee and earnings per share of deposit money banks financial report in Nigeria (ii) There is a positive relationship between audit firm size and earnings per share of deposit money banks financial report in Nigeria (iii) There is a negative relationship between audit tenure and earnings per share of deposit money banks financial report in Nigeria. Nkechi, Ifureze and Anichebe (2022) investigated the effects of audit fee (AUDFE) on market performance of industrial goods companies arises in Nigeria. A sample of 18 quoted industrial goods firms in Nigeria were used covering the period of 2011-2020. Market performance (MAPEF) was the dependent variable using share price as proxy while audit fee (AUDFE) was used as the independent variable. Findings revealed that Audit fee (AUDFE) has negative and insignificant relationship on Market performance of industrial goods companies in Nigeria. Mesba and Ramadan (2022) examined the effect of audit quality on financial reporting quality using secondary data obtained from the financial statements of 152 firms listed in the Egyptian stock market in the period from 2016 to 2020 representing 608 firm-year observations, excluding non-financial firms due to their special nature. Evidence of a positive relationship between audit firm size and audit firm fees on one hand and financial reporting quality on the other was obtained Also, a negative relationship between audit firm tenure and financial reporting quality was also obtained.

Iorpev, Anande and Oto (2022)investigated effect of audit quality on market performance of listed agricultural and consumer goods companies in Nigeria using longitudinal research design, and the data for the study were obtained from audited annual report of the sampled companies for the period of 7years (2011-2017) with a total of 112 observations and the multiple regression analysis were used for data analysis. Using fixed effect model, findings show that audit committee significantly moderates the effect of audit quality on market performance; the moderating role of audit committee. Audit quality was measured by Audit Firm Size (AFS) and Audit Fees. The variables have no significant effect on MPS while AF, the moderator variable AC and the interaction variable AF AC have significant effect on MPS. Musa (2022)examined audit quality and market value of quoted Nigerian deposit money banks. The study specifically evaluated the effect of audit tenure and audit firm size on the market share prices of the quoted deposit money banks in Nigeria. The findings show that audit tenure positively affect market share prices of the deposit money banks in Nigeria while audit firm size has positive relationship with the market share prices but statistically insignificant.

Abba and Sadah (2020), examined the impact of audit quality on firm value of listed deposit money banks in Nigeria for the period 2013 t0 2018. Audit quality was used as an independent variable proxy for audit size and industry specialized audit, and Tobin's Q was used as a dependent variable proxy for firm value. The data for the study were extracted from the published annual reports and accounts of the 13 banks that comprised the study's sample from 2013 to 2018. The findings indicate that an industry specialized auditor has a significant positive influence on the firm value of Nigerian listed deposit money banks. The size of audits has no effect on the firm value of banksPham et al. (2020) examined audit quality and stock return co-movement: Evidence from Vietnam.. The results show that the quality of

the audit is positively correlated to stock price synchronicity. This finding suggests that stock returns of companies with higher quality of the audit are more synchronous with the market. Results for other control variables also support our reasoning for the main findings

Li, Adeke and Mandela (2019) examined the effect of audit quality proxied by auditors' independence (ADI), audit firm size (AFS), auditor tenure (ADT) and Audit Firm Specialization (ADS) on shareholders' earnings (measured as Earnings per Share - EPS) and stock predictability (measured as Market Price of Stock - MPS) of listed manufacturing companies in Nigeria. It also tested the quality and persistence of earnings components and their predictive power on stock performance. Cash flows and accruals components of earnings are persistent in the Nigerian manufacturing market, with cash flows being more persistent than cash flows. Both cash flows and accruals have significant impact on stock performance, with the persistence of both components being underestimated in the Industry. Auditor's independence, audit firm size and auditor's firm specialization have significant and positive impact on EPS and MPS result of the analyses revealed that auditors' independence and audit firm size have positive and significant effects on reported EPS figure and stock pricing. However, auditors' tenure is found to negatively and significantly affect MPS.
Tabmbun et al. (2018) examined the effect of audit quality on accuracy of stock price prediction through earnings quality, evidence from Indonesia. This article discusses the results of the study, which consists of three research models. The results in the first research model prove that audit quality has a significant and positive effect on earnings quality. The results of the second research model, proving that earnings quality and audit quality have a significant influence on the accuracy of stock price predictions. The results of the third research model prove that earnings quality mediates significantly the influence of audit quality on the accuracy of stock price predictions.Ugwunta et al. (2018) assess the effect of audit quality on share prices in Nigerian oil and gas seetor using regression and covariance analyses. Findings show that audit committee composition and auditor type has significant effect on market prices of quoted firms. The covariance analysis suggests that while auditor type, auditor independence, and composition of the audit committee have significant relationship with market price of shares, audit tenure has a negative relationship with the market price per shares. Mustafa and Abdulwahab (2018) examined the nexus between audit quality and firm performance for listed oil and gas firms in Nigeria. The study also found that audit quality (audit firm tenure) is found to be negatively related to Tobin's Q.

Halim (2017) examined stock return predictability with audit quality concept. Investors of Indonesian Stock Exchange (IDX) have interest to audited financial statements qualityThE study found evidence that price to earnings ratio, dividend yield, and book to market ratio partially affect on stock returns predictability and audit quality enlarge the effect of price to earnings ratio, dividend yield and book to market ratio on stock returns predictability. Al-Attar (2017) explores the impact of auditing on stock prices of Amman stock market. Impact of audit is indicated in terms of audit quality and its effect on financial performance measured by stock prices.. It was found that audit has a direct impact on stock prices of firms in Amman stock market while improved audit quality results in improved financial performance of the firms indicated in their stock prices.

METHODOLOGY

Research Design

The study adopts longitudinal, cross-sectional and ex-post facto design and census sampling method. The design for the study is ex-post facto because the data derived is based on past data published by the World Bank, Central Bank of Nigeria Bulletin, Federal Office of Statistics.

Variables of the Study

The explanatory variables in the study is audit quality and Audit firm size, audit fees and audit tenure are proxied as independent variable for the study while the dependent variable in the study are Market price per share and Tobin Q.The control variable for the study is firm size and growth opportunities. Essentially because the size of the firm can confer certain advantages (such as economies of scale) or disadvantages like political cost.

A summary of the variables and measurements are highlighted on the table below:

Table 1: Measurement of Variables summarized

Independent Variable	Measurement	Expected Sign
Audit Firm size	A dummy value of 1 is used if a firm uses any of the Big 4 audit firm and 0 if otherwise.DeAngelo (1981) Wati and Bambang (2003) Fawzi (2014	Positive
Auditors tenure	Length of auditor-client relationship: '1' if 3 yrs+ and '0' if otherwise.Bhagat and Bolton (2009); Geiger and Ragunandan (2002	Negative
Audit fees	Natural log of fees paid to auditors in a year (Wallace,	Positive

	1987; Carcello, Hermanson, Neal, Riley, 2002; Choi, Kim,Kim,Zang., 2010). (Choi, Kim,Kim,Zang.,2010). Hsieh (2011)	
Dependent Variable		
Tobin Q	**Tobin Q (TQ)** = ratio expresses the relationship between market value of a firm and the cost of replacing the asset. We adopt Chung and Pruitt's approximating formulation of Tobin's Q = MVE + PS +DEBT/TA	Positive
Market price per share	Price of shares as quoted on daily equity report of NSE	Positive
control Variables:		
Firm size	Natural Log of Total sales	Negative/positive
Growth	GRW*i*, *t* = Change in total asset divided by total asset of firm *i* in year *t* as a proxy of growth of the firm	Positive

Model specification

$TBN = \beta_0 + \beta_1 AUT + \beta_2 AFS + \beta_3 AUF + \beta_4 GRW + \beta_5 LogFMS + U_2$, t..... (vii)

$MPS = \beta_0 + \beta_1 AUT + \beta_2 AFS + \beta_3 AUF + \beta_4 GRW + \beta_5 LogFMS + U_3$, t..... (viii)

For hypotheses 2, our focus is on model (ii), which expresses Tobin Q as econometric function of its own one period lagged value, AUT, AFS, AUF while GRW,FMS will bethe control variable. We expect that the variables would enter the Tobin Q positively. In other words, we expect apriori, that all would be positively statistically different from zero.

For hypotheses 3, our focus is on model (viii), which expresses market price as econometric function of its own one period lagged value, as AUT, AFS, AUF while GRW,FMS as control variable. We expect that the variables would enter the market price positively. In other words, we expect apriori, that all would be positively different from zero.

Autoregressive distributed lag (ARDL)

. In line with Pesaran et al. (2001), the unrestricted error correction mechanism for testing co-integration among the variables used in this study is stated

$\Delta TBN_t = \beta_0 + \sum\beta_1 \Delta AUT_{t-1} + \sum\beta_2 \Delta AFS_{t-1} + \sum\beta_3 \Delta AUF_{t-1} + \sum\beta_4 \Delta GRW_{t-1} + \sum\beta_5 \Delta LogFMS_{t-1} + \alpha_0 + \alpha_1 \Delta AUT_{t-1} + \alpha_2 \Delta AFS_{t-1} + \alpha_3 \Delta AUF_{t-1} + \alpha_4 \Delta GRW_{t-1} + \alpha_5 \Delta LogFMS_{t-1} + U_2$, t . (xiii)

$\Delta MPS_t = \beta_0 + \sum\beta_1 \Delta AUT_{t-1} + \sum\beta_2 \Delta AFS_{t-1} + \sum\beta_3 \Delta AUF_{t-1} + \sum\beta_4 \Delta GRW_{t-1} + \sum\beta_5 \Delta LogFMS_{t-1} + \alpha_0 + \alpha_1 \Delta AUT_{t-1} + \alpha_2 \Delta AFS_{t-1} + \alpha_3 \Delta AUF_{t-1} + \alpha_4 \Delta GRW_{t-1} + \alpha_5 \Delta LogFMS_{t-1} + U_3$, t ... (xiv)

The ARDL long-run model is estimated if cointegration is found while the short-run model is estimated if otherwise. In the short run:

$\Delta TBN = \beta_0 + \beta_1 AUT_{t-1} + \beta_2 AFS_{t-1} + \beta_3 AUF_{t-1} + \beta_4 GRW_{t-1} + \beta_5 LogFMS_{t-1} + U_2$, t .... (xvii)

$\Delta MPS = \beta_0 + \beta_1 AUT_{t-1} + \beta_2 AFS_{t-1} + \beta_3 AUF_{t-1} + \beta_4 GRW_{t-1} + \beta_5 LogFMS_{t-1} + U_3$, t ... (xviii)

$\Delta TBN = \alpha_0 + \alpha_1 \sum \Delta AUT_{t-1} + \alpha_2 \sum \Delta AFS_{t-1} + \alpha_3 \sum \Delta AUT_{t-1} + \alpha_4 \sum \Delta GRW_{t-1} \alpha_5 \sum \Delta LogFMS_{t-1} + ECM + U_2$

In thre long run

$\Delta MPS = \alpha_0 + \alpha_1 \sum \Delta AUT_{t-1} + \alpha_2 \sum \Delta AFS_{t-1} + \alpha_3 \sum \Delta AUT_{t-1} + \alpha_4 \sum \Delta GRW_{t-1} \alpha_5 \sum \Delta LogFMS_{t-1} + ECM + U_3$

RESULTS

Table 2: Descriptive Statistics for Panel Data

Variable	Mean	Max.	Min.	Std. Dev.	Skew.	Kurt.	J-B	Prob.
TOBIN	15.93	42.86	0.20	8.02	1.86	6.47	117.41	0.00
MPS	0.09	2.40	0.00	0.23	9.62	97.85	425.68	0.00
AFS	14.65	22.00	6.00	3.50	-0.10	2.49	1.33	0.51
AUF	0.19	1.33	0.05	0.13	5.89	49.60	104.72	0.00
AUT	3.34	333.00	0.02	31.87	10.30	107.01	510.57	0.00

GRW	55.06	129.00	23.00	34.40	0.86	2.26	15.82	0.00
FMS	7.85	9.61	5.59	0.83	-0.32	3.20	2.05	0.36

.For the Tobin Q as a measure of market performance variables, average Tobin Q is 15.93, with a standard deviation of 8.02, while market price measure is 0.09 on average, with a standard deviation of 0.23. This shows that the Tobin Q (which is related to book to market ratio) measure is more stable than the market price (which is related to investors perception).

For the Audit quality characteristics variables, average audit firm size (AFS) is approximately 1. The standard deviation value of 3.5 is however low (relative to the mean value), suggesting that most of the manufacturing firms used the big four accounting firms. Average audit fees (AUF) score is 0.19 or 19 percent, indicating that on average, 19 percent of revenue on the average is paid to auditors. The standard deviation of 0.13 shows that audit fees percentage is almost similar among the manufacturing firms. Average ratio of audit tenure members over the total number of years in the study is 3.34, which is low and shows that audit firm size is more valued than audit tenure among the manufacturing firms in Nigeria.

From the descriptive analysis, the skewness value falls within the normal range of ±10.3 while the kurtosis figures are high for Tobin Q and Audit tenure, indicating large extreme values for some of the manufacturing firms in the sample. Another important descriptive statistic considered is the Jarque-Bera (J-B) statistic which shows the normality of the probability distribution of the datasets. Given that the data are inherently heterogenous (with different firms involved), it is not surprising that almost all the variables are significant in terms of the J-B test statistic, indicating that the datasets underlying the variables are non-normally distributed as expected. This is a strong basis for providing a panel-form analysis in the regression process for the study.

CORRELATION ANALYSIS

The study used Pearson correlation coefficients to examine the required relationships to allow for the non-normality of the variables in question. The result is presented in Table 3. The correlations among the dependent variables are generally low, indicating that the measures of financial performance are generally unrelated.

There is however significant negative correlation between Tobin Q and market price, indicating that Tobin Q is negatively correlated with market price. Thus, manufacturing firms that seek to increase Tobin Q are correlated with lower market price.. The correlation among the independent variables are also weak. Only audit tenure and growth have significant correlation among them.

Table 3: Correlation Matrix

Variable	TOBIN	MPS	AFS	AUF	AUT	GRW	FMS
TOBIN	1						
MPS	-0.27 0.00	1					
AFS	0.02 0.81	-0.10 0.28	1				
AUF	-0.04 0.71	0.01 0.92	-0.13 0.16	1			
AUT	-0.07 0.48	0.05 0.59	0.07 0.50	-0.01 0.90	1		
GRW	0.12 0.23	0.03 0.72	0.12 0.21	-0.05 0.58	0.19 0.05	1	
FMS	0.06 0.53	-0.18 0.06	0.08 0.42	-0.03 0.74	0.07 0.44	0.07 0.49	1

Tests of Time Series and Cross-sectional Properties of the Panel Data

Panel Unit Root Test

Given that each of the variables in the study is likely to exhibit differences in their emissions, especially as it relates to institutional and outcomes, heterogenous-based results from the Im, Pesaran and Shin (IPS, 2003) and the Augmented Dickey-Fuller tests are a included in the study. The results of the unit root test are presented in Table 4 below.

Table 4: Panel Data Unit Root Tests Results

Variables	*Common unit process*	*individual unit root process*		
	LLC	**IPS**	**ADF**	**PP-Fisher**

TOBIN	-8.26**	-1.76	33.41*	22.23
MPS	-5.14**	-2.13*	37.62*	60.00**
AFS	-2.29*	1.20	13.89	60.67**
AUF	2.61*	-0.07	25.17*	58.31**
AUT	-3.29**	-2.05*	35.46*	58.27**
GRW	5.56**	3.28	18.76	45.63**
FMS	4.92**	3.31	6.38	12.05

Source: Estimated by the Author*. Note: ** and * indicate significant at 1% and 5 % levels respectively; IPS = Im, Pesaran & Shin; LLC = Levin, Lin & Chu*

From the results, it can be seen that the coefficient of the test for the variables in levels indicates that all the variables are stationary (given that the critical test values are higher than the test statistic at the 5 percent level). Based on this outcome, The results indicate that all the variables are stationarity in levels and are therefore all integrated of order zero (i.e., I[0]). Therefore, a cointegrated analysis can be performed for the variables with meaningful outcomes.

Cross-sectional Dependence Test

The cross-sectional dependence tests are also conducted for each of the equations estimated in the study. This test helps to evaluate the cross-sectional properties of the panel dataset by examining the issue of cross-section correlations in the data. The Pesaran cross-section dependence test results are presented in Table 5.

Table 5: Cross-section Dependence Test Results

Variables series tested	Pesaran CD	P-value	Abs corr
TOBIN	-0.692	0.488	0.170
MPS	1.330	0.103	0.291

From the results reported in Table 5, it is seen that the Peseran CD test statistics for each of the equations fail the significance tests at the 5 percent level (p value > 0.05). This shows that for these equations, there is absence of cross-sectional dependence in the estimates. The absence of cross-sectional dependence indicates that the estimated equations are free of heteroskedastic influences.

Co-integration Tests

The unit root results strongly indicate that the stationarity status of the variables are equal for each of the variables being I[0]. The long run conditions of the variable interactions can therefore be established using the panel co-integration tests. The result of the panel co-integration tests are presented in Table 4.6. Both the results of the Pedroni and Kao co-integration tests are presented. The coefficients of the residual based (Kao) panel co-integration tests are all significant at the 5 percent level. For the Pedroni Tests, at least two of the test statistics pass the significance test at the 5 percent level in each of the equations. Thus, the co-integration tests results show that there is strong long run relationships among the variables in the study. The panel estimation framework can therefore be employed in the empirical analysis.

Table 6: Kao Panel Cointegration Test Results.

Panel Cointegration Test Result for Audit Quality

Equation: TOBIN	Panel Statistics	Group Statistics	Kao (ADF)
Variance ratio	-0.777		2.982*
Rho	2.12	4.36	
IPS	-5.308**	-4.315**	
ADF	1.48	0.14	
Equation: MPS	**Panel Statistics**	**Group Statistics**	**Kao (ADF)**
Variance ratio	-1.93	--	3.176*
Rho	0.77	3.80	
IPS	-13.90**	-12.76**	
ADF	1.83	-2.12	

*Note: **, **** indicates the rejection of the null hypothesis of no cointegration at the 0.01 and 0.05 level of significance respectively

Source: Author's computations

Regression Analysis

For the panel data analysis procedure there is need to select between the fixed effects or random effects models as the best representation of the relationships. The standard Hausman test for random effects test is therefore used for identifying the time-varying conditions of the panel data used in the study in order to determine the method of panel analysis to be adopted. The result of the Hausman tests for each of the equations of the study are reported in Table 7. In the results of the Hausman tests presented in Table 7 (a), the Chi-Square values for each of the Equations fails the significance test at the 5 percent level. Thus, the null hypothesis cannot be rejected in this case. This implies that the random effects estimation procedure is the most efficient procedure for estimating the relationships.

Table 7 (a): Hausman Test for Cross-Section Random Effects

Model	***Chi-Sq. Statistic***	***Chi-Sq. d.f.***	***Prob.***
TOBIN	3.921	5	0.653
MPS	4.061	5	0.540

Causality Test

The result of the causality tests between pairs of two dependent and three independent variables is presented in Table 7(b). In the result, causality is shown to run mostly from the independent variables to the dependent variables. There is no evidence that causality runs from the dependent variables to the independent variables. Based on this tests, the study shows evidence that audit quality variables actually generates effects on the financial performance variables.

Table 7(b): Relationships

Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
AFS does not Granger Cause MPS	100	3.70	0.03
MPS does not Granger Cause AFS		0.48	0.49
AUF does not Granger Cause MPS	100	0.21	0.65
MPS does not Granger Cause AUF		0.05	0.83
AUT does not Granger Cause MPS	98	0.00	0.99
MPS does not Granger Cause AUT		0.00	0.00
AFS does not Granger Cause TOBIN	100	0.02	0.90
TOBIN does not Granger Cause AFS		0.15	0.70
AUF does not Granger Cause TOBIN	100	2.22	0.04
TOBIN does not Granger Cause AUF		0.30	0.58
AUT does not Granger Cause TOBIN	98	0.04	0.84
TOBIN does not Granger Cause AUT		0.22	0.64

Panel Estimation Analsysis

Audit quality and financial performance is the random-effect strategy. In order to show the robustness of the estimates, however, we also report the OLS estimates of the results.

Audit Quality and Tobin Q

The results for the impacts of Audit Quality variables on Tobin Q (proxied by the book-to-market ratio of the firms) are presented in Table 8. In the result, the goodness of fit statistics is also impressive, with the adjusted R-squared value showing that 55 percent of the variations in the ratio was explained by the explanatory variables. The highly significant F-statistic also shows that the independent variables jointly and significantly explain the dependent variable. The focus of the analysis is on the significance and signs of the coefficients of the explanatory variables. In the result, the coefficients of audit fees and audit tenure are both significant at the 1 percent level. On the other hand, the coefficient of audit firm size fails the significance test at the 5 percent level.

Table. 8: Regression Result for Tobin Q

Variable	*OLS*			*Random effect*		
	Coeff.	**t-Stat.**	**Prob.**	**Coeff.**	**t-Stat.**	**Prob.**
Constant	10.061	1.240	0.218	10.330	5.591	0.000
AFS	0.014	0.063	0.950	0.029	0.833	0.407
AUF	1.652	0.280	0.780	0.734	3.120	0.002

AUT	-0.025	-0.992	0.324	0.023	43.272	0.000
FMS	0.560	0.594	0.554	0.456	2.270	0.025
GRW	0.030	1.300	0.196	0.031	9.384	0.000
Adj. R-sq.	0.021			0.554		
F-statistic	0.563			27.806		

Based on the coefficients of the explanatory variables, it is shown that both audit tenure and audit firm size significantly affect Tobin Q. The essence, audit firm size and audit tenure significantly affects the book-to-market ratio of the firms. Given that the ratio assesses and indicates a firm market value, it is seen that these two audit quality indicators significantly affect the market value of the manufacturing firms and directly contributes toincrease financial performance. The coefficients of both variables are also positive and show that the higher the audit size, and audit tenure, the higher the market value of the firms. Thus, both audit quality variables are shown to significantly promote the market performance of the manufacturing firms.

Audit Quality and Market Price

The results of the estimates for market price equation are presented in Table 9. The OLS estimates are also seen to be less explanatory compared with the random effects estimates. Note that market price relates to price investors are willing to pay per unit of shares in the market. Hence, these estimates evaluate how audit quality influences share prices in an open market scenario from investors. The results in the Table show that the random effects estimates obtained better measures than the OLS results. The coefficient of determination (adjusted R-squared) for the estimates is 0.787, indicating that over 78 percent of the systematic variations in the dependent variable was captured in the model estimates. The F-statistic is also significant at the 1 percent level. This shows that there is a significant relationship between the dependent variable and all the independent variables combined.

Table 9: Regression Result for Market Price

Variable	*OLS*			*Random effect*		
	Coeff.	**t-Stat.**	**Prob.**	**Coeff.**	**t-Stat.**	**Prob.**
C	0.563	2.465	0.015	0.550	13.955	0.000
AFS	-0.007	-1.026	0.308	-0.006	-9.901	0.000
AUF	-0.010	-0.061	0.952	0.011	2.096	0.039
AUT	0.000	0.653	0.515	0.000	40.576	0.000
FMS	-0.051	-1.901	0.060	-0.049	-12.529	0.000
GRW	0.000	0.473	0.638	0.000	4.258	0.000
Adj. R-sq.	0.003			0.787		
F-statistic	1.066			80.819		

The individual performance of the main focus of the estimates is determined by observing the coefficients of the explanatory variables. In the result in Table 9, the coefficients of audit firm size and audit tenure both pass the significance test at the 1 percent level, while the coefficient of Audit fees passes the significance test at the 5 percent level. This shows that the three audit variables significantly affect the accounting and market performance of manufacturing firms in Nigeria. The coefficient of audit firm size is however negative, indicating that audit firm size has a significant negative impact on the market price of the manufacturing firms. This indicates that larger audit firm size tend to inhibit the performance of the manufacturing firms. On the other hand, the coefficients of audit fees and Audit tenure are both positive. These indicate that audit fees and audit tenure both significantly enhance market price. The result also shows that larger and newer manufacturing firms share prices are than smaller and older firms (as seen from the coefficients of FMS and firm growth respectively

Post Estimation Tests

Multicollinearity Tests

Three post-estimation tests are conducted in this section to determine the robustness of the estimates in the study. The results of the multicollinearity test are presented in Table 10. In the result, the focus is on the output of the uncentred variance inflation factors (VIF) variables. The VIF value must be less than 5.0 for the variable in an equation to be free from collinearity. In the report on Table 10, the VIF values for all the variables are less than 5. Thus, it can be seen that the estimated coefficients for the equations do not integrate excessively among themselves and the estimates are therefore reliable.

Table 10: Post Estimation Test Results

Variable	Coefficient Variance	Uncentered VIF
AFS	0.572	1.750
AUF	1.523	2.649
AUT	2.264	1.929
FMS	0.010	1.144
GRW	0.000	1.370

Tests for Stability of Regression

The second robustness test is to evaluate and to observe any form of serially correlated errors, while the third test detects for non-normality in the distribution of residuals. The normality test is conducted using the J-B procedure while the serial correlation tests are performed using the LM statistics. The results for all the estimates are presented in Table 11. From the results, none of the J-B and LM statistics passed the significance test even at the 5 percent level which implies that the null hypothesis is accepted in both cases. The tests indicate that the residuals are normally distributed and are devoid of serial correlation. Thus, each of the estimated equations can be adjudged to be stable and effective for long term prediction and analysis.

Table 11: Post estimation test results for serial correlation and normality

Equation	***Test***	***Statistic***
TOBIN	*Normality test (J-B)*	1.47 (0.21)
	Serial Correlation LM Test	0.79 (0.38)
MPS	*Normality test (J-B)*	1.62 (0.37)
	Serial Correlation LM Test	2.01 (0.25)

Source: Note: p-values in parentheses. Author's computations

DISCUSSION OF FINDINGS

H01: Audit firm size, Audit fees and Audit tenure does not significantly affect Tobin Q of manufacturing Firms in Nigeria

In order to test this hypothesis, the focus is on the coefficients of the Audit quality variables in the results in Table 9. In the estimates, the coefficients of audit fees and audit tenure both passed the significance test at the 1 percent level ($p < 0.01$). This means that the null hypothesis is rejected at the 1 percent level for audit fees and audit tenure, thus, it is stated audit firm sizeand audit tenure both have significant positive impacts on Tobin q in Nigeria . This implies that audit fees and audit tenure contribute to the market performance of the manufacturing firms in Nigeria. Felix and Chinyere (2020) confirmed that audit firm size have positive and significant effect on performance while auditors tenure has a negative and insignificant effect). There is a negative relationship between audit tenure and performance thus agreeing with the study of Etukudo and Azubuike (2022) which also found negative relationship between audit tenure and firm performance

H02: Audit firm size, Audit feesand audit Tenure does not significantly affect Market price of Manufacturing Firms in Nigeria

The empirical result for estimating the effects of Audit Quality on Market price is reported in Table 4.10. In the result, the coefficients of audit firm size and audit tenure pass the significance test at the 1 percent level (p-value < 0.01), while the coefficient of audit fees passed the test at the 5 percent level (P-value < 0.05). Thus, the null hypothesis is

rejected for all the Audit quality variables. This implies that audit firm size, audit feesand audit tenure all exert significant effects on Market price of manufacturing firms in Nigeria. The coefficients of audit fees and audit tenure are positive, thus, showing that audit fees and audit tenure significantly improves performance of manufacturing firms in Nigeria, while larger audit firm size essentially reduces market price. The results also align with findings Fasua et al. (2020) and Ugwunta and Ugwuanyl (2018) found that audit firm size, audit tenure have significant effect on audit quality while audit fees have insignificant effect on market price per share

In this study, the focus is examining the effects of audit quality on audit firm size, audit feesand audit tenure on performance of manufacturing companies. The goal is to show that effective audit can ultimately enhance firm performance. Four measures of financial performance were adopted in the study reflecting accounting and market performance of firms. Data used for the empirical analysis involved financial data from ten manufacturing companies over a period of ten years over the period of 2012 to 2022, while the random-effects panel estimation framework was adopted for estimating the relationships and testing hypotheses. In general, the results from the empirical analysis demonstrated that audit quality variables matter significantly in influencing the performance of manufacturing firms in Nigeria. In particular, the following findings were made:

1) That audit feesand audit tenure significantly and positively affect Tobin Q in Nigeria, but the effect of audit firm size is insignificant.
2) Audit firm size, audit feesand audit tenure all exert significant effects on market price of manufacturing firms in Nigeria, although the effect of audit firm size is negative, while those of audit fees and audit tenure are positive.

Conclusion

The quality of reports is a significant decision making tool for investors and buyers of stock rely on financial statements to gauge the future potentials and profitability of the business. The annual financial reports are considered a necessary means not only for gauging the performance of the entity but also for understanding how money invested in the firm has been used and enabling those interested in the entity to make appropriate decisions. The role of auditors in ensuring quality financial report is sacrosanct. In this study, the effects of audit firm size, audit fees and auditor tenure on market performance of manufacturing firms in Nigeria have been examined. We conclude audit fees and audit tenure play a significant rule in influencing market price of shares and therefore impact investors' decision.

Recommendations

Based on the findings of this research, this study, therefore, presents the following recommendations which will be useful to all firms' stakeholders.

(i) The findings of this research show that audit fees is a major audit quality factor that promotes market performance of manufacturing firms' in Nigeria. It is therefore recommended that appropriate and commensurate fees should be offered to external auditors to motivate them for enhanced quality of work which will ultimately affect firm performance.

(ii) The findings of this research also show that audit tenure also directly enhances the performance performance of manufacturing firms in Nigeria. The study therefore recommends that audit tenure of highly performing audit firms should be enhanced

(iii) The study also found that audit firm size exert negative effect on Market price.performance estimation. Thus, it is recommended that audit firm size should not be a deciding factor in hiring and retention of audit firms but rather the quality of audit offered. From the findings of the study larger audit firms size reduces market performance

Implications of the Study

The findings of this study have major implications for shareholders, managers, investors, and regulators in Manufacturing sub sector in Nigeria. In particular, the study emphasizes the importance of audit fees and audit tenure in promoting efficiency and quality of financial reporting among manufacturing firms in Nigeria. This in turn enhances market performance. The study also highlighted the negative impacts that audit firm size have on the manufacturing firms An ultimate efficient mix and coordination of Audit processes is therefore required to ensure that all the different components of financial reporting are well coordinated and guided towards enhanced performance of manufacturing firms in

Suggestions for Further Study

This study focused on Audit quality and performance of manufacturing firms and tried to determine if audit tenure, audit firm size and audit fees affect market performance. Other studies can examine the same problem with different variables. The industry of our study is capital intensive without much regulation. Other studies can focus on finance industry which is highly regulated as high regulation can constrain audit quality and performance. Future researchers can use different methodologies to examine the same area of study

Contribution to Knowledge

The goal of the research was to determine the effect of audit quality on market performance of manufacturing firms in Nigeria. The research contributes to the growing; literature on the subject by identifying the role each audit quality metric plays on performance. The research contributes to knowledge by highlighting audit fees and audit tenure as the

major drivers of market price of shares on the Nigeria stock exchange. The study also contributes to knowledge by highlighting the negative role audit firm size plays on performance and guides the hiring and retention policy of the firm.

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