# AUDIT QUALITY AND FINANCIAL PERFORMANCE OF FOOD AND BEVERAGES ENTERPRISES IN NIGERIA

# Amadi Uchechukwu Ph.D Amadiuche.au@gmail.com University of Port Harcourt & Nwankwo Johnson Alozie Sonalozie@gmail.com Department of Accounting, University of Port Harcourt, Nigeria

Abstract— This study examined the relationship between audit quality and the financial performance of food and beverage enterprises in Nigeria. The study adopted an ex-post facto research design since the data was in existence before the research commenced. The population for the study comprised all food and beverage firms in Nigeria, from 2009 to 2018, which are 72 food and beverage firms. The study focused on a period of 10 years, from 2009 to 2018. The sample for this study comprised the 5 food and beverage companies in Nigeria whose annual financial report contained complete data for all the variables under investigation. The data was analyzed using: Panel data analysis approaches of Panel multiple regression techniques with the aid of E-views 9 Package. The results reported in this study showed that audit quality and financial performance measures do not have a statistically significant relationship; this result agrees as well as disagrees with several previous studies. The study, therefore, concluded that quoted food and beverage firms in Nigeria cannot improve their financial performance by simply having the right audit quality. Hence, it was recommended amongst others that the food and beverage firms in Nigeria should not consider increasing their auditor's size as it is not significantly impacting their financial performance rather, they should consider those other things that can be done in order to have an effective audit committee, like diversity in terms of gender, religion, region, ownership, etc.

Index Terms— Audit quality, corporate accountability, financial audit, financial performance.

### I. INTRODUCTION

Financial performance which assesses the fulfillment of a firm's economic goals has long been an issue of interest in managerial research. Firm financial performance relates to the various subjective measures of how well a firm can use its given assets from primary mode of operation to generate profit. Kothari (2001) defined the value of a firm as the present value of the expected future cash flows after adjusting for risk at an appropriate rate of return. To Eyenubo, (2013) it is the success in meeting pre-defined objectives, targets and goal within a specified period. Qureshi, (2007), put forward four different approaches in which the value of a firm has been identified in corporate finance literature. These are: the *financial management approach* which focuses on the evaluation of cash flows and investment levels before identifying and assessing the impact of financing sources on firm value; the *capital structure approach* which studies the impact of capital structure changes on the value of firm and how different factors impact directly or inversely the debt and equity component of the firm capital structure; the *resource based approach* which is a summary of the above three approaches to firm value, taking into account the firm's operating performance, its investment and financing needs, the financing sources, and its financing and dividend policies for sustainable development of firm's resources and maximization of firm value.

Audit quality can be defined in two dimensions: first, detecting misstatements and errors in financial statement and second, reporting these material misstatements and errors. Due to the fact that these characteristics are largely unobservable, different proxies have been used by researchers to measure audit quality like: audit size, audit hours, audit fees, reputation, litigation rate and discretionary accruals. Audit quality is subject to many direct and indirect influences. In tandem with the stakeholder theory, perceptions of audit quality vary amongst stakeholders depending on their level of direct involvement in audits and on the perspective through which they assess audit quality. Audit quality may be perceived from any of three fundamental perspectives: inputs, outputs, and context factors. Inputs to

audit quality, apart from auditing standards, include the auditor's personal attributes such as auditor skill and experience, ethical values and mind-set.

Increased concerns regarding corporate accountability in various developed nations have been associated with the need for appropriate Audit which involves risk management and internal control systems. Audit Quality is recognized to influence financial reporting and strongly impact on investors' confidence. Conventionally, external auditors play critical and highly challenging roles in assuring the credibility of financial reports. Audit quality plays an important role in maintaining an efficient market environment; an independent quality audit underpins confidence in the credibility and integrity of financial statements which is essential for well-functioning markets and enhanced financial performance. Furthermore, enhancing disclosure quality increases transparency and facilitates investors to better assess firms' performance. Initially, fraud detection was considered the primary objective of the audit process until approximately the middle of 20th century. The main objective of auditing has changed from fraud detection to verification of financial statements. This is because the audit profession wanted to avoid legal suits by businesses and the general public. Four types of opinion usually emerge from the audit function unqualified, gualified, and adverse and disclaimer of opinion after examining, based on the data obtained from that organization. The type of opinion is usually the outcome of the audit exercise performed by the audit firm. Audit is an important part of the regulatory and supervisory infrastructure and thus an activity of significant public interest. Auditors, by performing their audits in accordance with the Generally Accepted Auditing Standards (GAAS), will attest to the fairness of corporate financial reports and, the reports issued (clean, reserved, abstention from giving opinion, contrary) have a clear impact on the decisions which might be made by the users of this report. When the financiers of organizations have confidence and trust in the audited financial report of an organization, they are bound to pour in more funds into the organization, which in turn results in increased financial performance. **Statement of the Problem** 

Financial reports are supposed to provide relevant information to the external parties of an organization. It is thus important that financial reports provide truthful and accurate financial information to enable shareholders and other interested parties to make decision wisely. Lack of accuracy in financial reporting will lead shareholders and prospective investors to make wrong judgment about the organization. Incidentally, the heavy reliance placed on accounting numbers (as it measures the direction of business entity as well as decision base by different users of accounting information) has provided an incentive for managers to manipulate earnings to their own advantage. This manipulation that is not supposed to go unchecked by auditors has often led to the eventual collapse of firms of various sizes and even called to questions the integrity of auditors and characteristics of audit firms. The credibility of financial information is vital to the growth of any economy. Auditors on their part are expected to be independent and objective in the discharge of their responsibilities because as the report of external auditors in corporate financial statement is seen as providing key assurance and protecting the interest of shareholders. However, one of the most vexing problems in the financial world today is the emphasis placed on ensuring the independence of external auditors as a result of recent corporate Scandals. In the real world, when business entities collapse the consequences are usually enormous. The oversight function of the auditor is placed under scrutiny when a business whose financial statement once showed no indication of any failure suddenly becomes bankrupt. As a follow up to the oversight function, the independence of the auditor in such circumstance would be in doubt. Many studies have been conducted on the relationship between audit firm characteristics and quality of financial reporting. The studies are however based largely on US and European data, thus reflecting the advanced economies environment. Few of the studies used data from emerging economies such as like Nigeria. Little is known about the relationship between audit quality and firms' financial performance in Nigeria particularly, using data on food and beverage firms. It is therefore pertinent to conduct a study that will fill this literature gap. Moreover, this study used two audit qualities variables to investigate their effects on the financial performance of food and beverage firms in Nigeria. Hence gap to be filled in the literature because most of the studies in this area focused on usually one aspect of audit firm characteristics.

#### **Objectives of the Study**

The aim of this research was to examine the relationship between audit quality and financial performance of food and beverages companies in Nigeria. The specific objectives were to:

Determine the relationship between audit size and earnings per share of food and beverages companies in Nigeria.
 Examine the relationship between audit size and return on capital employed of food and beverages companies in

Nigeria.

3. Evaluate the relationship between audit committee financial expertise and return on capital employed of food and beverages companies in Nigeria.

4. Evaluate the relationship between audit committee financial expertise and earnings per share of food and beverages companies in Nigeria.

# **Research Questions**

The following research questions guided this study.

1. What is the nature of the relationship between audit size and earnings per share of food and beverages companies in Nigeria?

2. How does audit size relate to return on capital employed of food and beverages companies in Nigeria?

3. How does audit committee financial expertise relate to return on capital employed of food and beverages companies in Nigeria?

4. What is the relationship between audit committee financial expertise and earnings per share of food and beverages companies in Nigeria?

# **Research Hypotheses**

To make the study operational, the following specific hypotheses were tested:

**H01:** There is no significant relationship between audit size and earnings per share of food and beverages companies in Nigeria.

**H02:** There is no significant relationship between audit size and return on capital employed of food and beverages companies in Nigeria.

**H03:** There is no significant relationship between audit committee financial expertise and earnings per share of food and beverages companies in Nigeria.

**H04:** There is no significant relationship between audit committee financial expertise and return on capital employed of food and beverages companies in Nigeria.

## Significance of the Study

This study will measure the impact of monitoring systems, such as the audit committees. Decision makers can assess these monitoring systems' role in improving how shareholders view the firm's financial performance. Providing shareholders with reliable and viable information regarding corporate governance increases the accuracy and effectiveness of their decisions. This study will assist in improving investors and stock market participants' decision-making process. When various aspects of the audit qualities are measured, investors' knowledge in evaluating the reliability of the financial reports will increase. It will also enable them to be more alert to the management's ability to manipulate accounting earnings. Corporate governance authorities or regulators (such as CBN, SEC etc.), especially in Nigeria, could utilize this study as practical and viable evidence to develop or review corporate governance regulations and recommendations.

# II. METHODOLOGY

This study adopted ex-post facto research since the data was in existence before the research commenced. Therefore, the study adopted ex-post facto design since the variables were not within the control of the researcher. The population for the study comprised all food and beverage firms in Nigeria, from 2009 to 2018, which are 72 food and beverage firms. The study focused on a period of 10 years, from 2009 to 2018. The sample for this study comprised the 5 food and beverage companies in Nigeria whose annual financial report contained complete data for all the variables under investigation. It should be noted that out of the 72 food and beverage firms in Nigeria, the study (sample size) comprised those that have been trading consistently for the study period (that is from 2009 -2018). This was to eliminate the problem of missing data which would violate the precision and completeness principle. This study utilized secondary data and data was collected by means of content analysis which was obtained from the annual financial performance of food and beverage firms, annual investors' reports, magazines and articles related to the financial performance of food and beverage companies in Nigeria. Quantitative data from secondary sources, which are audited financial statements of the food and beverage companies from 2009 to 2018, were used in this study. This period is chosen because the International Financial Reporting Standard was adopted in Nigeria in the year 2011.

This study examined the relationship between audit quality and financial performance of food and beverage companies in Nigeria using secondary data.

| Independent<br>Variables | Measures     | Dependent Variable    | Measures   |
|--------------------------|--------------|-----------------------|--|
| Audit quality            | - audit size | Financial performance | -Return on capital employed<br>-Earnings per share |

|                       | -Audit comi<br>expertise | nittee financial |  |  |
|-----------------------|--------------------------|------------------|--|--|
| Control<br>Variables: | - Firm<br>- Lever        | Size             |  |  |

The data were gathered from the annual reports of food and beverage companies from 2009 to 2018 which were presented in tabular forms.

# Methods of Data Analysis

The data that was collected by the researcher was analyzed using: Panel data analysis approaches of Panel multiple regression technique with the aid of E-views 9 Package. The unit root of the panel data, the estimated results (which we got by first of all applying pooled ordinary least square [Pooled OLS] approach and then comparing it with fixed and random effect model of panel data analysis, and after that a cross-section dependence test was carried out on each of the statistical approaches to ascertain the correlation among firms with the aid of E-views 9.

# Panel Multiple Regression Technique (Panel Least Square Regression)

Panel multiple regression analysis was used to test the relationship between the predictive variable (audit quality) and the criterion variable (financial performance)

# Panel Data Regression analysis

It is a statistical method that is used in econometrics to analyze two-dimensional, particularly cross-sectional and longitudinal, panel data. The data are usually collected over time and over the same individuals and then a regression is run over these two dimensions. The two approaches of panel data regression are: fixed effect model and random effect model.

# **Fixed Effects Model**

It is a statistical model in which the model parameters are fixed or non-random quantities. In panel data where longitudinal observations exist for the same subject, fixed effects represent the subject-specific means. It is commonly used to reduce bias in the estimation of causal effects in observational data by eliminating large portions of variation thought to contain confounding factors (usually by including dummy variables for the missing or unknown characteristics).

### Random Effects Model

It is also known as variance components model. It is a statistical model that is applied where the model parameters are random variables (probability distribution that represents the likelihood that any of the possible values would occur). It is used when we have lots of levels, relatively little data on each level and uneven sampling across levels. **Preliminary test** 

#### **Preliminary test** Unit root tests are tests

Unit root tests are tests for stationary in time series. Stationary means that the statistical properties of a time series do not change over time. A time series has stationary if a shift in time does not cause a change in the shape of the distribution. Stationary is important because a lot of useful analytical tools, statistical tests and models rely on it. The function of unit root test in the study was to investigate the stationary of pooled data. Preliminary test was carried out to find out the most appropriate model between panel least square and fixed effect model using likelihood ratio – redundancy effect test. Furthermore, test was carried out to find out the most appropriate between panel least square and random effect model using Breusch-pagan LM test. Breusch-Pagan test is used to test for heteroscedasticity (circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it) in a linear regression model. Also, a Hausman test was carried out to find out between random effect to get the most preferable. Hausman test evaluates the consistency of an estimator when compared to an alternative less efficient estimator which is already known to be consistent.

# **Decision Rule:**

If the P-value < 0.05 level of significance, we reject the null hypothesis.

If the p – value  $\ge 0.05$  level of significance, we shall fail to reject the null hypothesis.

# **Model Specification**

 $\label{eq:states} \begin{array}{l} \mbox{Mathematical model} \\ FP = f (AS, ACFE) \\ FP = ROCE, EPS \\ ROCE = a_0 + a_1AS + a_2ACFE + a_4FSize + a_5FLev \\ EPS = a_0 + a_1ACS + a_2ACFE + a_4FSize + a_5FLev \end{array}$ 

# **Econometrics model**

The econometrics model is as stated below:  $FP = a_0 + a_1AS + a_2ACFE + a_3FSize + a_4FLev + e$  $ROCE = a_0 + a_1ACS + a_2ACFE + a_3FSize + a_4FLev + e$  .....(1)  $EPS = a_0 + a_1ACS + a_2ACFE + a_4FSize + a_5FLev + e \dots (2)$ Where: FP = Financial performance AQ = Audit Quality ROCE = Return on Capital Employed EPS = Earnings Per Share AS = Audit SizeACFE = Audit Committee Financial expertise FSize = Firm Size FLev = Firm Leverage  $a_0$ ,  $a_1$ ,  $a_2$ ,  $a_3$ ,  $a_4$ , and  $a_5$  are the correlation coefficients. e represents error term. The Apriori Expectation is that  $a_1-a_5$  is  $\ge 0$ 

# **Control Variables**

This study mainly focuses on audit quality and financial performance of food and beverage companies in Nigeria. However, it is important that other factors must be controlled. Those factors may not be related to audit quality yet may also contribute to improving financial performance (Kiel & Nicholson, 2003).

The control variables (firm size and firm leverage) are used in this study to control for possible relevant effect other than the explanatory variables. Some authors, such as Kinney and McDaniel (1989) found that larger firms have better internal controls, better information systems, and more resources and therefore the potential for increased quality reporting that leads, in turn, to improved firm performance. However, firm size influence on corporate governance is evident in the findings that show large companies to be less effective compared to the smaller ones because although they meet government requirements, they have higher agency issues and more ambiguity (Patro et al., 2003).

Firm size is a factor that affects governance. Booth et al. (2002) and Peasnell et al. (2003) stated that governance structures could be substituted, and that a firm should choose the most appropriate governance options. The more complex an entity becomes; the more sophisticated governance structures and processes are required. Larger firms have higher agency costs as larger spans usually allow greater managerial discretion and opportunism, which in return requires increased monitoring.

However, large organizations have higher capacity to generate funds, avoid financial constraints, and use their available funds to invest in viable projects more than smaller firms do. It is certain that as the firm size changes, different characteristics of the board, particularly the audit committee, might be affected. Therefore, this study uses the firm size as a control variable to investigate the impact of audit quality on firm performance.

Firm size (FSIZE) is measured as a natural logarithm of total assets (Sharma et al., 2009).

The other control variable used was the firm leverage. It can be justified by the belief that any firm performance measure needs to be adjusted for systematic risk of the firm.

As stated by Grossman and Hart (1982) and Jensen (1986), leverage is seen as a positive signal of firm value, and management-leveraged entities have devoted themselves to creditors in order to have a level of cash flow needed to cover interest and principal payments. Several studies use leverage as one of the control variables (for instance; Ehikioya 2007). Therefore, we control for the leverage adding the variable firm leverage (FLEV) which is measured as a percentage of total debt to total assets.

### **III. RESULTS**

Food and beverage firms in Nigeria panel data for a period of ten years, that is 2009 to 2018, entailing two independent variables and two control variables in both model 1 and model 2, are all arranged in this work. In this study there are five food and beverage firms and they are all quoted in Nigeria. The panel data which of course is a time series on a cross-section of food and beverage firm's data presented in appendix 2 includes the following variables ACS, ACFE, ROCE and EPS for the 5 food and beverages companies.

# Data Analysis and Result

This study was embarked on to examine the effect of audit quality on financial performance of Nigerian food and beverage firms. And so, study hypotheses are tested based on balanced sample of five Nigerian food and beverage firms in Nigeria, though Nigerian food and beverage firms whose accessible data are not complete for every single

variable in the models were left out from the analysis. The unit root of the panel data, the estimated results (which we got by first of all applying pooled ordinary least square [Pooled OLS] approach and then comparing it with fixed and random effect model of panel data analysis with the aid of E-views 9, and their interpretation presented afterwards.

# **Data Statistics**

See Table 1 for the descriptive statistics of the study variables which we consider helpful in improving our ability to figure out the unique features of the different variables in the pooled cross-sectional time series data. Give or take, the observations were 130 on the statistics, which include mean, standard deviation, Skewness, kurtosis and Jarque-Bera, these statistics helped to depict the distributions of the data over the sample period. The variables are ROCE, EPS, AS, ACFE, FSIZE, and FLEV.

**Table 1: Descriptive Statistics** 

|              | ROCE      | EPS       | ACS       | ACFE      | [ FSIZE  | FLEV      |
|--------------|-----------|-----------|-----------|-----------|----------|-----------|
| Mean         | 0.114734  | 0.383863  | 6.000000  | 1.338462  | 16.54406 | 5.696532  |
| Median       | 0.059290  | 0.259326  | 6.000000  | 1.000000  | 14.81018 | 5.437776  |
| Maximum      | 8.271834  | 8.735455  | 8.000000  | 3.000000  | 22.10156 | 38.99508  |
| Minimum      | -0.737478 | -21.18194 | 4.000000  | 0.000000  | 11.19145 | -7.219782 |
| Std. Dev.    | 0.731482  | 2.338344  | 0.373544  | 0.812250  | 3.387246 | 6.237580  |
| Skewness     | 10.76635  | -5.735765 | -0.895806 | -0.079253 | 0.191589 | 2.901713  |
| Kurtosis     | 120.8318  | 58.71480  | 21.66667  | 2.354451  | 1.467857 | 15.27821  |
|              |           |           |           |           |          |           |
| Jarque-Bera  | 77718.28  | 17526.90  | 1904.794  | 2.393392  | 13.51072 | 999.0180  |
| Probability  | 0.000000  | 0.000000  | 0.000000  | 0.302191  | 0.001165 | 0.000000  |
|              |           |           |           |           |          |           |
| Sum          | 14.91539  | 49.90216  | 780.0000  | 174.0000  | 2150.728 | 740.5492  |
| Sum Sq. Dev. | 69.02355  | 705.3530  | 18.00000  | 85.10769  | 1480.073 | 5019.056  |
| -            |           |           |           |           |          |           |
| Observations | 50        | 50        | 50        | 50        | 50       | 50        |
|              |           |           |           |           |          |           |

# Source: E-views 9 output from the investigator's desk

From Table 1 above we can see the mean of earning per share (EPS), return on capital employed (ROCE), (AS), (ACFE), and (FLEV) of 9.89, 0.36,9.07, 12.82, and 13.55 respectively for the sampled 5 quoted Nigerian food and beverage firms in Nigeria between 2009 and 2018 period. When we compare the two chief variables of concern, namely: EPS and ROCE (dependent indicators), while EPS bares greater variability (it's SD = 32.49), where SD is standard deviation, ROCE displays a minor variability (SD. = 0.844342). Virtually all the variables were positively skewed, apart from ACS with an adverse skewness coefficient (SK = -0.106758). Consequently, earnings per share, return on capital employed, ACFE was crowded over the mean estimate rather than under the mean estimate. Respectively they have a distribution skewed to the right or say a positively skewed distribution. Conversely agency monitoring cost (ACS) because it has distribution that is skewed to the left. In addition, all the kurtosis coefficients, EPS (K = 529.5851), ROCE (K =577.8720), ACS (K = 3.179178), ACFE (K =4.518217) and FLEV (K = 4.829095), are fine because they are over average kurtosis of 3 for average distribution, indicating that the variables have a leptokurtic distribution. Principally, the Jarque-Bera test unmistakably exhibits that ACS (p-value > 0.05) has normal distribution while the rest of the variables do not have a normal distribution because their Jarque-Bera p-value < 0.05.

# **Unit Root Analysis**

Our methodology in chapter three indicated that panel data stationary is necessary for the reliability of the outcome of the study's analysis. Hence, every variable's panel stationary was investigated in this subsection. The panel data stationary test commonly is used here and is presented in Table 2 below.

 Table 2: Panel Data Stationary Test (Unit Root Test Results)

| Variables | Levin, Lin & Chu t* | Order of integration |
|-----------|---------------------|----------------------|
| (AS)      | 0.0000**            | 1(0)                 |

| (ACFE)  | 0.0000** | 1(0) |
|---------|----------|------|
| (FSIZE) | 0.0000** | 1(0) |
| (FLEV)  | 0.0000** | 1(0) |
| (EPS)   | 0.0000** | 1(0) |
| (ROCE). | 0.0000** | 1(0) |

The Levin, Lin & Chu t stationary tests results Table 2 above shows that both the independent and dependent variables are stationary at level, hence trying to get rid of unit root is unnecessary.

There are several approaches to panel analysis, thus Park (2010) suggests that to find out the most suitable approach, it is helpful to carry out tests, like: Likelihood Ratio test, to determine whether fixed effect model measure up to PLS, and Breusch-Pagan Lagrange Multiplier (LM) test for random effect model. Hausman test would be needed if we find both fixed and random effects to be more appropriate than Pooled OLS. See section 4.2.2 for the test results.

#### Testing for the most Suitable Econometric Model for the Data Collected

Park (2010) suggested three kinds of tests when dealing with panel data analysis, which include: Likelihood Ratio Test, Breusch-Pagan LM Test, and Hausman Test.

*Likelihood Ratio Test (LRT) is also called Redundant Fixed Effects Tests*: this test has an underlying hypothesis, that Pooled Least Square (PLS) model fits the data better than Fixed Effects model. After LRT we then proceeded to Breusch-Pagan LM test.

Breusch-Pagan LM Test: this test has an underlying hypothesis that PLS model fits the data better than Random Effects model.

If the result of the LRT shows that fixed effects model is better than PLS model, while Breusch-Pagan LM Test shows that PLS model is better than Random Effects model, then it means that fixed effects model is better than both PLS and random effects models, but if Breusch-Pagan LM Test outcome shows that random effects model is better than PLS, then we will carry out a Hausman test to find out whether random effects model fits the data better than fixed effects model.

Hausman Test has an underlying hypothesis that Random Effects model is more appropriate than Fixed Effects model.

# **Model Specification Test Results**

*Likelihood Ratio Test results for Model 1 & 2* **Table 3: PLS vs. fixed effects for Model 1** 

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects

| Effects Test             | Statistic | d.f.     | Prob.  |
|--------------------------|-----------|----------|--------|
| Cross-section F          | 0.613890  | (12,112) | 0.8266 |
| Cross-section Chi-square | 8.281165  | 12       | 0.7628 |

The p-value associated with the cross-section F-statistic is 0.8266, while the p-value associated with the Chi-square is 0.7628 and both are more than 0.05 significance level, which provides strong evidence for the null hypothesis underlying the Likelihood Ratio Test, which states that PLS model better fits the data than fixed effects model. This suggests that there is no disregarded heterogeneity amongst the Nigerian food and beverage firm's data if PLS model is employed in the analysis of model 1 of this study.

 Table 4: PLS vs. fixed effects for Model 2

# Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects

| Effects Test             | Statistic | d.f.     | Prob.  |
|--------------------------|-----------|----------|--------|
| Cross-section F          | 1.720251  | (12,112) | 0.0715 |
| Cross-section Chi-square | 21.991129 | 12       | 0.0376 |

The p-value associated with the cross-section Chi-square is 0.03, which is less than 0.05 significance level, and this provides strong evidence against the null hypothesis of LRT, that PLS model better fits the data than fixed effects model. This indicates that there is a disregarded heterogeneity amongst the Nigerian food and beverage firm's panel data if PLS model is used in the analysis of model 2 of this study.

Breusch-Pagan LM Test results for Model 1 & 2 Table 5: PLS vs. random effects for Model 1

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided

(all others) alternatives

|               | Test Hypothesis<br>Cross-section | Time     | Both     |
|---------------|----------------------------------|----------|----------|
| Breusch-Pagan | 1.284356                         | 0.244502 | 1.528858 |
|               | (0.2571)                         | (0.6210) | (0.2163) |

The Breusch Pagan LM test result in Table 5 above shows a statistic of 1.528858 and an associated p-value of 0.2163, which both indicate evidence for the null hypothesis that Panel Least Square (PLS) model better fits the data than random effects in our econometric model 1.

Furthermore, the Breusch Pagan LM test as well as Likelihood Ratio test showed that pooling the panel data does not in any way disregards heterogeneity in the industry because the data is pool able

 Table 6: PLS vs. random effects for Model 2

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided

(all others) alternatives

|               | Test Hypothesis<br>Cross-section | Time     | Both     |
|---------------|----------------------------------|----------|----------|
| Breusch-Pagan | 1.528124                         | 0.929468 | 2.457592 |
|               | (0.2164)                         | (0.3350) | (0.1170) |

The Breusch Pagan LM test result in Table 6 above shows a statistic of 2.457592 and an associated p-value of 0.1170, which both indicate evidence for the null hypothesis that PLS model better fits the data than random effects in our econometric model 2.

In addition, because Likelihood Ratio test showed that pooling the data will amount to disregarding the unobserved heterogeneity in the observations, as a result, the data is not pool able, rather fixed effects model is most suitable in the analysis of Model 2

Research work estimates Table 7: Model 1: Estimation results Dependent Variable: ROCE Method: Panel Least Squares Date: 09/23/21 Time: 15:10 Sample: 2009 2018 Periods included: 10 Cross-sections included: 5 Total panel (balanced) observations: 50

| Variable   | Coefficient  | Std. Error   | t-Statistic   | Prob.  |
|--|--|--|---|--|
| C<br>AS<br>FSIZE<br>FLEV   | 0.535958<br>-0.007132<br>-0.013026<br>-0.014871                                    | 1.110362<br>0.172819<br>0.021314<br>0.010659   | 0.482688<br>-0.041268<br>-0.611161<br>-1.395110               | 0.6302<br>0.9671<br>0.5422<br>0.1655                                 |
| R-squared<br>Adjusted R-squared<br>S.E. of regression<br>Sum squared resid<br>Log likelihood<br>F-statistic<br>Prob(F-statistic) | 0.038577<br>-0.000190<br>0.731552<br>66.36085<br>-140.7542<br>0.995088<br>0.423647 | Mean depend<br>S.D. depende<br>Akaike info c<br>Schwarz crite<br>Hannan-Quin<br>Durbin-Watsc | ent var<br>nt var<br>riterion<br>rion<br>n criter.<br>on stat | 0.114734<br>0.731482<br>2.257758<br>2.390105<br>2.311535<br>1.359627 |

Table 7 presents the results of this study's model 1. These results were obtained using Pooled Least Square (PLS). The results show that the coefficient of ACS is -0.007132, and this suggests a negative relationship between AS and ROCE, but the associated p-value which is 0.9671 is more than 0.05 level of significance, which essentially indicates an insignificant negative relationship. The result also shows that ACFE has a coefficient of 0.086848, suggesting a positive relationship, but the associated p-value is 0.3113, which in fact reveals that no significant relationship exit between ACFE and ROCE. Similarly, the result showed that the coefficient of the control variables FSIZE and FLEV are -0.013026 and -0.014871 respectively indicating negative relationship but with associated p-values of 0.5422 and 0.1655, there is no significant relationship.

See the comparative results of fixed effect and random effect models in appendix 1.

 Table 8: Model 2: Estimation results

Dependent Variable: EPS Method: Panel Least Squares Date: 09/23/21 Time: 18:02 Sample: 2009 2018 Periods included: 10 Cross-sections included: 5 Total panel (balanced) observations: 50

| Variable | Coefficient | Std. Error | t-Statistic | Prob.  |
|----------|-------------|------------|-------------|--------|
| С        | -5.214623   | 5.152866   | -1.011985   | 0.3137 |
| AS       | 0.544457    | 0.587326   | 0.927011    | 0.3559 |
| ACFE     | -0.083256   | 0.339467   | -0.245254   | 0.8067 |
| FSIZE    | 0.093613    | 0.201221   | 0.465225    | 0.6427 |
| FLEV     | 0.001174    | 0.038423   | 0.030559    | 0.9757 |
|          |             |            |             |        |

Effects Specification

Cross-section fixed (dummy variables)

| R-squared          | 0.168110  | Mean dependent var    | 0.383863 |
|--------------------|-----------|-----------------------|----------|
| Adjusted R-squared | 0.041841  | S.D. dependent var    | 2.338344 |
| S.E. of regression | 2.288901  | Akaike info criterion | 4.621909 |
| Sum squared resid  | 586.7758  | Schwarz criterion     | 5.018952 |
| Log likelihood     | -282.4241 | Hannan-Quinn criter.  | 4.783240 |
| F-statistic        | 1.331367  | Durbin-Watson stat    | 2.311933 |
| Prob(F-statistic)  | 0.186450  |                       |          |
|                    |           |                       |          |

Table 8 presents the result of this study's model 2. This result was obtained using Fixed Effects model. The result shows that the coefficient of ACS is 0.544457, and this suggests a positive relationship between AS and EPS, but the associated p-value which is 0.3559 is more than 0.05 level of significance, which as a matter of fact indicates an insignificant positive relationship. The result also shows that ACFE has a coefficient of -0.086848, suggesting a negative relationship, but the associated p-value is 0.8067, which in effect reveals that no significant relationship exit between ACFE and EPS. Correspondingly, the result showed that the coefficient of the control variables FSIZE and FLEV are 0.093613and 0.001174respectively indicating positive relationship but with associated p-values of 0.6427 and 0.9757, there is no significant relationship.

See the comparative results of panel least square and random effect models in appendix 3.

# **Test of Hypotheses**

Here the various hypotheses stated earlier on in chapter one of this thesis are tested. The p values of panel least square serve as the basis of testing hypotheses 1 to 3, whilst the p-values of fixed effects multiple regression model served as the basis for testing hypotheses 4 to 6.

# Testing the relationship between auditor's size and return on capital employed of Nigerian food and beverage firms in Nigeria.

**H0**<sub>1</sub>: There is no significant relationship between auditor's size and return on capital employed of food and beverage firms in Nigeria.

 $HA_1$ : There is a significant relationship between auditor's size and return on capital employed of food and beverage in Nigeria.

Examining hypothesis one in line with how it was stated in this test's model 1, with return on capital as the dependent variable and auditor's size as the independent variable, the p-value of panel least square estimation of model 1 was applied in ascertaining the test outcome

# **Decision Rule:**

Hypothesis one rejection or acceptance was based on the p-value estimated, if less than 5% we reject, if otherwise the null hypothesis is accepted.

In the statistical analysis of the relationship between auditor's size and return on capital employed of food and beverage in Nigeria, the result presented in Table 7 in relation to this showed a p-value of 0.9671, which suggests clearly that there is no significant relationship between them.

H0<sub>2</sub>: There is no significant relationship between auditor's size and earnings per share of food and beverage in Nigeria.

 $HA_2$ : There is a significant relationship between auditor's size and earnings per share of food and beverage in Nigeria.

Testing hypothesis two along the lines of how it was stated in model 2, with earnings per share as the dependent variable and auditor's size as the independent variable, the p-value of the fixed effect estimation of model 2 was used in establishing the test up shot.

# **Decision Rule:**

Hypothesis two rejection or acceptance was based on the estimated p-value, if less than 5% we reject, if otherwise the null hypothesis is accepted.

By virtue of the statistical test of the relationship between auditor's size and earnings per share of food and beverage in Nigeria, the result presented in Table 8 in relation to this showed a p-value of 0.3559, which indicates undoubtedly that there is no significant relationship between them.

H0<sub>3</sub>: There is no significant relationship between audit committee financial expertise and return on capital employed of food and beverage in Nigeria.

HA<sub>3</sub>: There is a significant relationship between audit committee financial expertise and return on capital employed of food and beverage in Nigeria

Hypothesis three testing was in accordance with the model 1that was set out in the study methodology, with return on capital employed as the dependent variable and audit committee financial expertise as the independent variable, the p-value of the panel least square effect estimation of model 1 was used in corroborating the result of the test.

# **Decision Rule:**

Hypothesis three rejection or acceptance was based on the estimated p-value, if less than 5% we reject, if otherwise the null hypothesis is accepted.

Following the statistical model of the relationship between audit committee financial expertise and return on capital employed of food and beverage in Nigeria, the statistical analysis result presented in Table 7 on this revealed a p-value of 0.3113, which point to the fact that there is no significant relationship between them.

H0<sub>4</sub>: There is no significant relationship between audit committee financial expertise and earnings per share of food and beverage in Nigeria.

 $HA_4$ : There is a significant relationship between audit committee financial expertise and earnings per share of food and beverage in Nigeria.

The testing of hypothesis four was according to model 2that was set out in the study methodology, where earnings per share as the dependent variable and audit committee financial expertise as the independent variable, the p-value of the fixed effect model estimation of model 2 was used in providing empirical evidence for the result of the investigation

# **Decision Rule:**

Hypothesis four rejection or acceptance was based on the estimated p-value, if less than 5% we reject, if otherwise the null hypothesis is accepted.

As a result of the statistical model of the relationship between audit committee financial expertise and earnings per share of food and beverage in Nigeria, the statistical analysis result presented in Table 8 on this revealed a p-value of 0.8067, which point to the fact that there is no significant relationship between them.

# **IV. DISCUSSION OF FINDINGS**

The results reported in this study showed that audit quality and financial performance measures do not have statistically significant relationship; this result agrees as well as disagrees with several previous studies.

The finding on audit committee financial expertise and its impact on financial performance indicates insignificance in the influence of financial expertise of audit committee on the two financial performance ratios (ROCE and EPS). It is observed that increasing the number of the auditor's size with financial expertise does not really improve the financial performance, which is consistent with the argument of Ehikioya (2009) as well as Jensen and Meckling (1976) that corporate governance does not account for corporate performance. It is also consistent with the findings of Koutoupis and Bekiaris (2019), Zhou, Owusu-Ansah, and Maggina (2018) who empirically found insignificant relationship between background, skills and financial performance.

The findings in this study, on the other hand, does not support the findings of Dakhlallh (2020), Oroud (2019), Ashari and Krismiaji (2019), Olayinka (2019), as well as Shehu (2017) that financial expertise helps to improve financial performance. The findings also do not support the views of Krishnan and Visvanathan (2008) who maintained that accounting expertise within boards contributes to greater monitoring by the audit quality (AQ) and leads to enhanced performance. In respect of audit committee chairman having an auditing or accounting background, one could follow Spira (1999) who believes and thinks that the absence of relationship between financial expertise of audit quality and financial performance in this study is as a result of the fact that most of the audit committee chairmen do not have auditing background or recent sufficient experience.

And lastly, the inclusion of firm size and firm leverage as control variables suggested that the observed insignificant relationship between audit quality and financial performance in previous studies (like, Ojeka, Iyoha, &Obigbemi, 2014; Ebere & Ibanichuka, 2016; Yusuf, Bambale, &Abdullahi, 2018; Zhou, Owusu-Ansah, & Maggina, 2018; and Olayinka, 2019) was not spurious, and that other factors outside the board's control might be responsible for Nigerian food and beverages firms' financial performance.

# **V. CONCLUSION**

Several past investigations suggest that auditor size and financial expertise influence financial performance (Oroud 2019; Dakhlallh, 2020). In spite of this, the outcome of this study point toward the fact that size and financial expertise have no predictive power on the financial performance of food and beverage firms in Nigeria, this is in agreement with the findings of Olayinka (2019).

The two-audit quality investigated in this study such as auditor size and audit committee financial expertise and exhibited inability to predict the two financial performance indicators employed in the study: ROCE and EPS. This finding toed the line of the findings of Olayinka (2019) further inferring that auditor size and financial expertise of members of the committee are not the solutions to poor financial performance or to agency problem. So conclusively, audit quality does not show that they influence financial performance of food and beverage firms quoted in Nigeria.

These findings disagree with mixed patterned results of previous literatures that have examined the variables. The findings of this study show clearly that the agency theory that suggests that the board of directors through their monitoring role would contribute to the achievement of organizational goal does not work in all contexts because there are several environmental factors that might make it impossible. On the other hand, supporters of stewardship theory argue that having more directors in a committee will add to effectiveness and produce higher result (Al Mamum et al., 2013). This study's findings did not support the resource dependence model that suggest that the board of directors could support the management in the achievement of organizational goals (Wang, 2009). However, the finding demonstrates a neutral cause; it does not matter the size, the financial expertise, frequency of meeting or otherwise; the outcome of financial performance remains unchanged whatever the board's choice is.

To help achieve a robust finding, the audit quality was controlled using firm size and leverage. For both firm size and leverage, the regression coefficients are negative as well as insignificant.

Thus, our study, like previous studies, provides findings that are consistent with some previous findings and inconsistent with some others as well but provides a complete conclusion to the debate.

We, therefore, can conclude that quoted food and beverage firms in Nigeria cannot improve their financial performance by simply having the right audit quality.

### VI. RECOMMENDATIONS

The findings of this study revealed that audit quality have no statistically significant effect on quoted food and beverage firm's financial performance in Nigeria. Following this finding, the researcher makes three important recommendations:

1. Firstly, the food and beverage firms in Nigeria should not consider increasing their auditor's size as it is not significantly impacting on their financial performance rather, they should consider those other things that can be done in order to have an effective audit committee, like diversity in terms of gender, religion, region, ownership, etc. 2. Secondly, the food and beverage firms should not focus so much on the financial expertise of audit committee

2. Secondly, the food and beverage firms should not focus so much on the financial expertise of audit committee members rather emphasis should be placed on the experience and commitment of each member.

3. In addition, future authors should investigate the relationship between audit quality and financial performance extensively, by adding new variables such as experience and independence.

4. Currently, audit committee supervises the internal audit activities and evaluates the performance and the independence of external audit. Therefore, the audit committee is supposed to help the board of directors to achieve the supervision of regulation and advice published by the BDL as well as the central bank of Nigeria.

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