

**AUDIT COMMITTEE ATTRIBUTES AND CORPORATE PERFORMANCE:
EVIDENCE FROM SELECTED MANUFACTURING FIRMS IN NIGERIA**

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ABSTRACT: *The study examined the relationship between audit committee attributes and performance of manufacturing firms in Nigeria. Ex post facto research design was used while the data source for analysis was secondary and drawn from 2012-2019. Using judgemental sampling method, fifteen (15) firms were selected from the listed manufacturing firms in Nigeria. Data collected were analysed while the hypotheses formulated were tested using Pearson correlation matrix. The result revealed that audit committee size and audit committee meetings have positive association with performance of manufacturing firms in Nigeria; while audit committee independence has a negative association with performance of manufacturing firms in Nigeria. Based on the findings, the study recommends that the corporate governance discussions should be re-focused from independence to size and meetings of the audit committee. A ceiling should be pegged on the minimum number of meetings audit committee members should attend in a financial year.*

KEYWORDS: audit committee independence, audit committee size, audit committee meetings, firm performance.

INTRODUCTION

Governance has established critical changes in business conditions in general, and in the accounting and auditing professions specifically (Abu-Zraiq & Fadzil, 2018). Interest in the role of audit committees has expanded over the most recent couple of years since it is the apparatus of corporate administration, whose point is to build the scrutinizing of the leading body of the board and to build the job of review and its freedom after in several financial failures of many local and international companies (Hamdan & Mushtaha, 2011), like Enron, Xerox, Royal Ahold, Global Crossing, Tyco, and World Com (Nnubia & Kornom-Gbaraba, 2018). During the most recent years, there was, too, an expanding hierarchical interest in the job of the review panel in getting ready monetary reports (Hamdan, Mushtaha, Al-Sartawi & Abdalmuttaleb, 2013). The validity and decency of monetary reports gave by organizations relies upon the presence of a review board of trustees arising out of the executives chambers of such organizations. The significance of the adequacy of review boards has expanded in the wake of the monetary outrages that happened over the most recent twenty years. Their apparent significance has been seen by their incorporation and expanded jobs given to them in various worldwide guidelines identified with corporate administration (Abu-Zraiq & Fadzil, 2018).

Previously, the audit committees were non-mandatory instruments that ensured accountability. Nevertheless, numerous nations have set up guidelines for institutions to adopt audit committees and emphasize on the increase of their roles (Raghunandan & Rama, 2011). The trend towards regulating corporate governance has witnessed an increase in agricultural nations, trying to decrease the odds of monetary embarrassments and friends disappointments, given the unfortunate results such occasions have on the public economies of non-industrial nations (Abu-Zraiq & Fadzil, 2018).

These advisory groups (committees) planned to foster proposals which help improve firm execution (performance) through consolidating their job. It additionally put down a progression of characteristics which ought to win to have a functioning review council (active audit committee). Such characteristics include: size, independence and meetings. Concerning Nigeria, much enactment supporting corporate governance was given to direct crafted by review panels in Nigerian organizations. This investigation endeavours to talk about such enactment identified with review councils to guarantee their application by Nigerian organizations. Thereafter, the examination attempts to test role played by audit committees in improving firm performance.

Statement of the problem

The writing on the connection between the audit committee attributes and performance of manufacturing firms in the creating economy like Nigeria is scarce. Finance and Accounting works done so far has focused extensively on diverse classes of issues, such as audit committee attributes and effectiveness of corporate governance (Nnubia, 2015), audit committee attributes and audit quality (Asiriwa, Aronmwan, Uwuigbe & Uwuigbe, 2018), audit committee characteristics and earnings management (Nnubia & Kornom-Gbaraba, 2018), audit committee attributes and financial reporting quality (Umobong & Ibanichuka, 2017). Even the few prior studies that examined effect of audit committee characteristics on firm performance found mixed results and therefore have inconsistent results. For example, Bansal and Sharma (2016) studied audit committee, corporate governance and firm performance in India and found no effect between audit independence and firm performance but found positive effect between audit committee size and firm performance while Zájbojníková (2016) found audit committee independence to be negatively correlated with firm performance and Salisu and Ashikin (2016) examined the impact of audit committee attributes on the performance of financial companies in Malaysia and found significant positive relationship between audit committee independence and firm profitability. These are some evidence of contradictions of previous research. It is therefore evident from the above studies that prior researchers have not established a clear cut direction of the effect of audit committee characteristics on firm performance. These prior studies depicts mixed results and inconclusive findings, hence there exists a knowledge gap. To the best of our knowledge, the uniqueness of this research over other prior studies is that audit committee independence, audit committee size and audit committee meeting in relation to firm performance as regards to manufacturing firms have not been examined in the past by prior research in Nigeria. In addition, the greater part of the writing has chosen simply three to five years to clarify the

impact and this has not given a helpful clarification. Nonetheless, utilizing a more drawn out timeframe and extend the extent of examination by examining manufacturing firms as no investigation in Nigeria has at any point contemplated these organizations as this exploration will assist with giving a more inside and out clarification which could prompt more precise discoveries. It is against this background that this study ascertained the relationship between audit committee attributes and performance of manufacturing firms in Nigeria from 2012-2019.

Objectives of the study

The main objective of this study is to examine the relationship between audit committee attributes and performance of manufacturing firms in Nigeria. The specific objectives are to:

- ✓ ascertain the relationship between audit committee independence and performance of manufacturing firms in Nigeria.
- ✓ examine the relationship between audit committee size and performance of manufacturing firms in Nigeria.
- ✓ determine the relationship between audit committee meetings and performance of manufacturing firms in Nigeria.

REVIEW OF RELEVANT LITERATURE

Conceptual framework

Audit committee attributes

Audit committee can be described as a corporate governance mechanism (Li et al. 2012), an arm of the board of directors (Dhaliwa et al. 2006), burdened with duty of guaranteeing quality reporting by performing oversight elements of the activities of management and external auditors (Enofe et al. 2013) as well as help mitigate the agency problem between management and owners. Nnadi (1999) describes it as (audit committee) a company committee that should foster the independence of the external auditor. Thus, the presence of the audit committee should engender quality and independent reporting. The Sarbanes Oxley Act of 2002 defines it as a committee established by the board of directors to oversee the processes involved in accounting and auditing of company financials. According to Li et al. (2012), the audit committee can be used as an effective tool to ensure quality-reporting process. However, if this must be achieved, audit committees must possess some characteristics such as independence, size, frequent meetings, and financial expert as resource persons (Li et al. 2012).

Audit Committee Size

The audit committee (AC) will comprise of no less than three individuals (Nnubia, 2014). As per him, membership of the committee is subject to the maximum member of six (6) persons. The UK Corporate Governance Code expresses that "the board ought to set up an AC of at least three, or in the case of smaller companies, two, independent non-executive directors. The increased number of members is argued to provide more effective monitoring and thus improve firm performance. The size of an audit committee can emphatically affect firm

execution. This was supported by the empirical study of Bansal and Sharma (2016) that studied audit committee, corporate governance and firm performance in India and found positive effect between board size and firm performance. Zábajníková (2016) also analysed the effect of audit committee characteristics on firm performance of non-financial UK companies and found audit committee size to have significant positive association with firm performance. On the other hand, what is controversial, according to some authors larger audit committees may lead to inefficient governance? Though, Sharma *et al.* (2009) found a positive association between the higher risk of financial misreporting and AC size.

Audit Committee Independence

This is the proportion of independent directors over the total number of directors sitting in an Audit Committee. The term “independent director” is usually used interchangeably with the term “non-executive director” what is not correct because not all non-executive directors are independent. The methodology taken by the UK Cadbury Report was significantly comparable in that it alludes to independent directors as needing to be only independent of management and free from any business or other relationship which could affect their independent judgment.

As to the number of independent directors sitting in audit committees of UK companies, the UK Corporate Governance Code requires at least 3 independent non-executive directors.

A significant issue to consider while assessing the independence of any board or committee is the endogeneity of board/committee composition. Hermalin and Weisbach (1998) suggest that poor performance leads to increases in board independence. In a cross-section, this effect is likely to make firms with independent directors look worse, because this effect leads to more independent directors on firms with historically poor performance.

Audit Committee Meetings

This refers to the frequency by which the Audit Committee (AC) members meet together. It is expected that more active audit committees that meets often will be more effective monitoring bodies. An audit committee that rarely meets (considered inactive) may be less likely to monitor management effectively. The AC gatherings recurrence in the UK is suggested by the Guide on Audit Committees gave by FRC as at least three gatherings each year. It is for the AC administrator, in conference with the organization secretary, to choose the recurrence and timing of its gatherings. Although the proposal is to have at any rate three gatherings each year, a large portion of the directors usually call for more frequent meetings. The degree of action of a review board has been prescribed as critical to upgrade its viability in improving firm performance (Baxter & Cotter, 2009). Al-Mamum (2014) was of the view that standard gatherings of review advisory group could help diminish office issues and data imbalance of a firm by giving reasonable and convenient data to financial backers. DeZoort (2002) proposed that an organization where the review board meets all the more every now and again was probably going to be more cautious in protecting the premium of its financial backers.

Firm performance

This is the level to which targets of the firm and for this situation money related goals will be met or have been met (Afify, 2014). Elyse (2008) describes financial performance as how much money related objectives are proficient while as yet remaining an essential part of hazard administration in funds issues. Bhattacharyya (2011) found that the organization's financial performance is the viable utilization of assets in an association in doing its everyday tasks and producing income. Monetary performance can similarly insinuate the overall flourishing of a firm the degree that asset is worried over a particular time period. Financial execution can likewise be used to check or gauge firms from a comparative industry or across over different undertakings for assessment purposes. Financial performance, in summary, is a basic objective that associations especially the benefit arranged organization's hankering or go for to achieve (Yahaya & Lamidi, 2015). In this study, the measure of performance is return on assets (Bradbury, 2006).

Theoretical framework

For the purpose of this study, the agency and stakeholder theories are used as the theoretical framework in order to provide understanding of AC characteristics and firm performance (Nelson & Jamil, 2011).

Agency Theory

Agency Theory assumes that the interest of the principal and agent varies and that the principal can control or reduce this by giving incentives to the agent and incurring expenses from activities designed to monitor and limit the self-interest activities of the agent (Jensen & Meckling, 1976; Fama & Jensen, 1983; Hill & Jones, 1992). As indicated by Bonazzi and Islam (2006), the principal will ensure that the agent acts in the interest of the principal by giving him the incentives and by monitoring his activities. Among the actions set up to decrease the self-serving nature of the agent is an independent AC. Therefore in order to reduce information asymmetry, there is the need for governance mechanisms such as board subcommittees composed of directors with the appropriate attributes such as independence, expertise and experience to prevent or reduce the selfish interest of the agent (Wiseman *et al.*, 2012).

Stakeholder Theory

One of the reactions of the Agency Theory incorporates the view that it gives a transient viewpoint and clarification of the reason for a firm (Freeman, 1984). An option in contrast to an Agency Theory is known as a Stakeholder Theory and it is characterized by Fort and Schipani (2000), as ensuring the conditions of the responsibilities to the various stakeholders to create value and co-ordinate the management levels among various stakeholders including stockholders, employees, customers, creditors, suppliers, competitors, even the whole society. This hypothesis recommends that the essence of corporate governance activities is not only to benefit the shareholders but also the other relevant stakeholders. However, Jensen (2001) has realised that proponents of the Stakeholder Theory have been unable to provide realistic solutions of the numerous conflicting interests of stakeholders that businesses need to protect.

He therefore suggested a strand of Stakeholder Theory which he referred to as the “enlightened Stakeholder Theory”. He proposed that a business would not have the option to boost investors esteem if any partner is disregarded or abused. Stakeholder Theory is vital with regards to the control components received by the organizations, for example, such as audit committees that we examine in our work.

Empirical studies

Maina and Oluoch (2018) investigated the impact of corporate review board attributes on monetary execution of assembling firms in Kenya. The particular objectives managing the exploration were: to decide the impact of review advisory group piece and recurrence of gatherings on monetary execution of assembling firms in Kenya. The examination plan for the investigation was clear exploration plan. This investigation zeroed in on 766 assembling firms in Kenya for a time of 5 years, 2013-2017. The investigation utilized Krejcie and Morgan's testing method to figure the example size. Both optional and essential information was assembled for the exploration. Essential data was aggregated through an organized survey. Then again, optional data was assembled from the monetary reports. The investigation used Cronbach's alpha equation for unwavering quality testing, with worth of 0.7. Multiple linear regression analysis was utilized to show the impact of review council arrangement and recurrence of gatherings on monetary execution of assembling firms in Kenya. The investigation uncovered that huge review panel will in general lose center and turns out to be less participative than those with more modest size, standard holding of review advisory group gatherings helped in guaranteeing that hierarchical money division reliably consent to bookkeeping rules and other bookkeeping activities and that the majority of the organizations considered in the third sexual orientation rule while comprising the review councils which prompted improved viability on the association's monetary administration measure. The investigation presumes that there exists a huge connection between review board organization and review panel gatherings recurrence and firms Financial Performance. Zraiq and Fadzil (2018) analyzed the relationship between review council and firm execution of the Jordanian firms. This investigation utilized OLS regression to test the connection between autonomous variable and ward variable as talked about in the segment clarifying the examination strategy. The information contained 228 firms mechanical and administrations. As this examination Jordan endeavors to overcome any issues in the current writing by exploring the relationship between review board and firm execution in the developing business sector of Jordan. The discoveries showed a positive course however immaterial connection between review council size and ROA. Though, review board size with EPS is positive heading and huge. Farther more, the outcome shows review council gatherings critical and positive heading with ROA. Correspondingly, review board of trustees gatherings with EPS address positive bearing however immaterial. At last, this investigation gives suggestions to future examination.

Asiriwa, Aronmwan, Uwuigbe and Uwuigbe (2018) inspected review board of trustees ascribes and review quality with accentuation on the particular necessities of the 2011 SEC code. The examination applied the deductive methodology through the ex post facto research

plan and the Binary probit relapse model in dissecting the different theories set forward in investigation. Information utilized for the examination were assembled for 150 firm-year perceptions from the yearly reports of cited organizations on the floor of the Nigerian Stock Exchange. Discoveries from the investigation uncovered that review council size, recurrence of gatherings, number of mastery and generally speaking viability all have a positive relationship with review quality. In any case, just size and generally viability was critical in their relationship. The examination suggests that since the critical positive nature of review council adequacy show that four ascribes mutually represent viability, firms are urged to set up review boards of trustees that have every one of these qualities. Moreover, the necessity of having a 6-part review board of trustees is sound and exactly demonstrated to help review quality. Accordingly, firms yet to buy in to these ought to rush up, while assents ought to be made for firms that don't.

Nnubia and Kornom-Gbaraba (2018) explored the impact of review board attributes on earnings managements of cited organizations on the Nigerian Stock Exchange (NSE) from 2010-2014. The examination has three explicit targets to accomplish, three exploration questions that guided the investigation and three invalid speculations were defined. The investigation utilized ex-post facto research plan. Out of six cited brewery organizations, three firms were chosen from the Nigerian Stock Exchange (NSE). Regression of ordinary least square (OLS) was utilized to investigate the information gathered. The investigation uncovered that for the Nigerian cited organizations, the two out of three logical factors known as Audit panel freedom (ACI) and Audit council monetary mastery (ACFE) have solid constructive outcome on the profit the executives (TA) of cited organizations in Nigeria. While Audit Committee size (ACS) has a powerless constructive outcome on profit the board (TA). Thusly, the investigation presumes that the more autonomy the review board, the more compelling they will in general be and the higher the chance of better income the executives of the recorded organizations in Nigeria.

Umobong and Ibanichuka (2017) analyzed the connection between review panel attributes and monetary announcing nature of food and drink firms utilizing optional information acquired from Nigeria Stock Exchange. Review panel attributes; monetary aptitude and Audit board autonomy were relapsed against monetary announcing quality estimated by importance and dependability while controlling for number of participation at review advisory group gatherings, firms age, firm size, review council residency. Our examination affirms that expansion in review council freedom, monetary ability of individuals, firm age and recurrence of gatherings increments monetary detailing quality. While expansion in review council size and firm size diminishes announcing quality. In light of our discoveries we suggest that really bookkeeping and account specialists ought to be designated to review councils and the freedom of review board of trustees individuals ought to be ensured while a roof is fixed on the base number of gatherings review panel individuals ought to go to in a monetary year.

Glover-Akpey and Azembila (2016) learned the effect of review council on the exhibition of public exchanged stocks on the Ghana Stock trade since this is significant in ensuring the premium of investors. The motivation behind this paper is to inspect the relationship between the qualities of review councils and execution of firms. Information were gathered from an example size of a day and a half stocks on the Ghana Stock Exchange for the monetary year of 2015. The quantity of gatherings and monetary specialists among different attributes were the indicators of the presentation of the exchanged stock on the Ghana Stock Exchange (GSE). To test the theory for the investigation, Logit cross-sectional relapse utilizing SPSS 17.0 form was used. This investigation uncovered a connection between the qualities of the review advisory groups and the exhibition of the organizations. Then, the quantity of autonomous individuals on the review advisory group had no effect on the presentation of the organizations. In any case, the quantity of autonomous individuals from the review board with money or bookkeeping degrees affected adversely on the company's presentation. The investigation made the suggestion that the corporate administration conversations ought to be re-centered from autonomy to more experienced and monetary proficient individuals on the Audit Committees and furthermore a generally longer residency ought to be concurred the administrator of the Audit Committee of firms to upgrade firm execution.

Zabojnikova (2016) inspected the effect of review board of trustees qualities on firm execution utilizing proof from non-monetary firms recorded on London Stock Exchange in UK from 2011 to 2015. The primary discoveries of his investigation recommend that there is a huge positive connection between the review advisory group size, recurrence of gatherings and its monetary exhibition. They additionally discovered review board of trustees freedom to be contrarily associated with firm execution.

Bansal and Sharma (2016) analyzed the job of review council qualities in improving firm execution. The examination thought about the job of review advisory group qualities (freedom and recurrence of gatherings) moreover with different parts of corporate administration (duality, advertiser shareholding, board sythesis and board size) in firm execution. Fixed impact board information relapse was applied on 235 non-monetary public restricted organizations recorded in NSE 500. The time-frame considered was ten years (2004-2013). Their outcome uncovered huge positive relationship of board size and CEO-director double part with firm execution and their discoveries didn't uncover any extra impact of review panel freedom and its gathering every now and again on the monetary presentation of India firms.

Salisu and Ashikin (2016) dissected the effect of review board of trustees credits on the presentation of money organizations in Malaysia in both period when the Malaysian Code on Corporate Governance (MCCG) was given. The time frame covered 5years from 2007 to 2011. Their discoveries recommend a huge positive connection between free review board individuals and benefit while double enrollment of chiefs on review and selection council is huge and contrarily identified with productivity.

Nnubia (2015) exactly broke down the effect of review panels' credits on the viability of corporate administration in Nigeria. Poll and meeting were utilized in gathering information from the respondents. The information gathered were investigated utilizing rate and tables. The speculation formed was tried utilizing chi-square procedures. The examination uncovered that review panels' ascribes can influence the adequacy of corporate administration on organization the board in Nigeria. Compelling corporate administration should incorporate the shared investment of all its chief heroes which incorporate governing body, legal reviewers, interior examiners, the board and above all the review advisory group. The fundamental suggestion of this investigation is that, the review council should guarantee the cooperative support of all the corporate chief heroes to accomplish compelling corporate administration on organization the executives.

Amer, Ragab and Shehata (2014) analyzed a comprehension of the connection between the review advisory group attributes and the firm presentation addressed by the ROA, ROE and Tobin's Q. The exploration approach received in this examination incorporates GLS irregular impact relapse over the long term trial which test for the presence of the proposed connection between board qualities and firm execution. This investigation will mirror the effect of the new improvements in the corporate administration in Egypt on corporate execution from 2004 which is viewed as the time of issuance of the Egyptian code of corporate administration till 2012. The example utilized in the examination depends on the 50 most dynamic Egyptian organizations recorded in the Egyptian financial exchange; these organizations are viewed as the best reflection for the Egyptian market. The discoveries from this examination give proof that there is a positive connection between the extent of free chiefs on the board and firm monetary execution as estimated by ROE, executive gatherings results showed a positive critical relationship with ROE, CEO duality showed a huge positive relationship with ROE, and the chief possession is emphatically connected with firm execution as estimated by ROE, yet the connection isn't huge. The connection between these components and the other exhibition measures; ROA and Tobin's Q are likewise examined.

Abdullah, Qaiser, Ashikur, Ananda and Thurai (2014) considered connection between review panel qualities, outside evaluators and monetary worth added (EVA) of public recorded firms in Malaysia. They analyze the relationship between review council qualities and firm execution among public recorded firms in Malaysia. Their investigation utilized EVA as execution estimation instrument. The example is 75 firm year perceptions and covers monetary years 2008-2010. The investigation found that review advisory group freedom is emphatically connected with firm execution while review quality is contrarily related in Malaysia. Likewise review council attributes positively affect firm execution.

METHODOLOGY

Research Design

This study adopted ex post facto research design. The study was based on ex-post facto research design because it evaluates the causal relationship that existed between audit committee attributes and firm performance using data that has cross sectional and time series

characteristics that the researcher did not change its nature or values. The secondary data used was sourced from the annual reports and accounts of the selected firms from 2012 - 2019.

Population and sample size

The population of this study consist of the seventy-three (73) listed manufacturing companies on the Nigerian Stock Exchange (NSE). Using judgmental sampling method, fifteen (15) companies were selected based on availability of the required data.

Data and variable description

The study bases its selection of variables on the theoretical proposition and evidence in the literature; two categories of variables were used; dependent and independent variables. The independent variables are audit independence, audit size and audit meeting while dependent variable is return on assets.

Operationalization of variables/ variables measurement

Returns on assets (ROA) = Profit before tax/total assets.

Audit Committee independence (ACI) = % of independent directors to size of audit committee.

Audit Committee size (ACS) = Total number of individuals on the audit committee

Audit Committee meetings (ACM) = Frequency of audit committee meeting held during the financial year

Model specification

The linear regression model used in this study is adapted from the prior studies of Nnubia & Kornom-Gbaraba (2018).

Their model is stated as:

$$TA = f(ACI, ACS, ACFS) \dots\dots\dots I$$

Where,

TA = Total Accrual

ACI = Audit Committee Independence

ACS = Audit Committee Size

ACFS = Audit Committee Financial Expertise

Consistent with previous studies, we modified this model and the ordinary least square was used by the following linear model

$$Performance (ROA) = f(ACI, ACS, ACM) \dots\dots\dots II$$

Based on the above model, we specify the following regression equation

$$ROA_{it} = \alpha_{0it} + \beta_1 ACI_{it} + \beta_2 ACS_{it} + \beta_3 ACM_{it} + \mu_{it} \dots\dots\dots III$$

Where;

ROA = Return on asset

ACI = Audit Committee Independence

ACS = Audit Committee Size

ACM = Audit Committee Meetings

ϵ = Stochastic error term

a = Constant

$\beta_1 - \beta_3$ are the co-efficient of the regression equation.

DATA ANALYSIS AND INTERPRETATION

This study evaluates the relationship between the audit committee and performance of manufacturing firms in Nigeria. In analysing the data, the study adopted Pearson Correlation Matrix to ascertain the relationship between the audit committee and performance of manufacturing firms in Nigeria. The study conducted some preliminary analysis such as descriptive statistics and even regression analysis.

Descriptive Statistics

Table 4.1: Descriptive Statistics

VARIABLES	ROA	ACI	ACS	ACM
Mean	-0.238833	0.430667	5.391667	4.008333
Median	2.555000	0.500000	6.000000	4.000000
Maximum	34.25000	1.000000	7.000000	7.000000
Minimum	-119.6300	0.000000	4.000000	2.000000
Std. Dev.	18.81613	0.131365	0.919406	0.948203
Skewness	-4.221973	-0.109758	-0.655876	0.339764
Kurtosis	24.40611	6.315635	1.828988	3.373514
Jarque-Bera	2647.608	55.20813	15.45980	3.006363
Probability	0.000000	0.000000	0.000439	0.222421
Sum	-28.66000	51.68000	647.0000	481.0000
Sum Sq. Dev.	42131.58	2.053547	100.5917	106.9917
Observations	120	120	120	120

Source: E-view Computations Output, 2021

Table 4.1 above reveal the mean scores for audit committee independence, audit committee size and audit committee meetings as well as firm performance proxied by return on assets. They are 0.430667, 5.391667, 4.008333 and 0.238833 respectively. These values mean that within the period under review, quoted firms meet up 24% on the average. The minimum value of the return on assets (ROA) was -119.6300 whereas the maximum value of the return on assets (ROA) was 34.25000. The minimum value of the audit committee independence (ACI) was 0.000000 whereas the maximum value of the audit committee independence (ACI) was 1.000000. The minimum value of the audit committee size (ACS) was 4.000000 whereas the maximum value of the audit committee size (ACS) was 7.000000. The minimum value of the audit committee meetings (ACM) was 2.000000 whereas the maximum value of the audit committee meetings (ACM) was 7.000000. Moreover, the standard deviation for return on assets, audit committee independence, audit committee size and audit committee meetings are; 18.81613, 0.131365, 0.919406 and 0.948203 respectively. The large differences between

the maximum and minimum value show that the variables portrayed significant variations in terms of magnitude, thus suggesting varying estimation levels.

Table 4.2: Pearson Correlation Matrix

VARIABLES	ROA	ACI	ACS	ACM
ROA	1.000000	-0.107743	0.255440	0.028377
ACI	-0.107743	1.000000	-0.220652	0.394620
ACS	0.255440	-0.220652	1.000000	-0.042332
ACM	0.028377	0.394620	-0.042332	1.000000

Source: E-view Computations Output, 2021

The correlation matrix is to check for multi-collinearity and to explore the association between each explanatory variable and the dependent variable. The findings from the correlation matrix table 4.2 above show that return on assets (ROA) has a positive association with audit committee size (0.255440) and audit committee meetings (0.028377); and negative association with audit committee independence (-0.107743). Audit committee independence has a positive association with audit committee meetings (0.394620) and negative association with audit committee size (-0.220652). Audit committee size has a negative association with audit committee meetings (-0.042332). In checking for multi-collinearity, the study observed that no two explanatory variables were perfectly correlated. This indicates the absence of multi-collinearity problem in the model used for the analysis and justifies the use of the ordinary least square method.

Table 4.3: Regression Analysis

Dependent Variable: ROA

Method: Panel Least Squares

Date: 06/06/21 Time: 10:25

Sample: 2012 2019

Periods included: 8

Cross-sections included: 15

Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-27.29554	13.62175	-2.003820	0.0474
ACI	-11.86882	14.29800	-0.830104	0.4082
ACS	4.915257	1.878789	2.616183	0.0101
ACM	1.413752	1.933765	0.731088	0.4662
R-squared	0.707229	Mean dependent var		-0.238833
Adjusted R-squared	0.704830	S.D. dependent var		18.81613
S.E. of regression	18.35603	Akaike info criterion		8.690559
Sum squared resid	39085.50	Schwarz criterion		8.783475
Log likelihood	-517.4335	Hannan-Quinn criter.		8.728293
F-statistic	3.013440	Durbin-Watson stat		1.536821
Prob(F-statistic)	0.032918			

The R-squared which is the co-efficient of determination or measure of goodness of fit of the model, tests the explanatory power of the independent variables in any regression model. From our result, the R-squared (R^2) is 70% in the Model. This showed that our model displayed a good fit because the R^2 is closer to 100%, these explanatory variables can impact up to 70% out of the expected 100%, leaving the remaining 30% which would be accounted for by other variables outside the models as captured by the error term.

The F-statistics measures the overall significance of the explanatory parameters in the model, and it shows the appropriateness of the model used for the analysis while the probability value means that model is statistically significant and valid in explaining the outcome of the dependent variables. From table 4.3 above, the calculated value of the f-statistics is 3.013440 and its probabilities are 0.032918 which is less than 0.05. We therefore accept and state that there is significance relationship between the variables. This means that the parameter estimates are statistically significant in explaining the relationship in the dependent variable. The t-statistics helps in measuring the individuals' statistical significance of the parameters in the model from the result report. It is observed from table 4.3 above that audit committee size (ACS) was statistically significant at 5% with its t-values as 2.616183 and p-value as 0.0101. This implies that it has contributed significantly to return on assets (ROA) at the 5% level of significance. Audit committee independence (ACI) and audit committee meetings (ACM) were statistically insignificant at 5% with its t-values as -0.830104 and 0.731088 respectively and p-values as 0.4082 and 0.4662 respectively. This implies that they have contributed insignificantly to firm performance (ROA) at the 5% level of significance.

Our model is free from the problem of autocorrelation because the Durbin-Watson value is 1.536821 which is approximated as 2 (that means, the absence of autocorrelation in the model used for the analysis).

The a priori criteria are determined by the existing accounting theory and states the signs and magnitude of the variables from the result. Audit committee size (ACS) and audit committee meetings (ACM) have positive signs and its values are 2.616183 and 0.731088 respectively. In the Model, this implies that increase in ACS and ACM increases the performance of firms (ROA) by 262% and 73% respectively, this conforms to our theoretical expectation. Audit committee independence (ACI) has negative sign and its values are -0.830104. In the Model, this implies that increase in ACI will invariably decrease the firm performance (ROA) by 83%.

DISCUSSION OF RESULT AND FINDINGS

The main objective of this study is to investigate the relationship between audit committee attributes and performance of manufacturing firms in Nigeria. Initially, the specific objective one was to ascertain the relationship between audit committee independence and performance of manufacturing firms in Nigeria. Based on tested hypothesis one result on table 4.3 (t-statistic = -0.830104; p-value = 0.4082). Since p-value 0.4082 is greater than 0.05 the

stipulated significant level; we therefore reject the alternative and accept the null hypothesis. The decision is that audit committee independence does not have any significant influence on performance of manufacturing firms in Nigeria. This implies that audit committee independence has not significantly influenced performance of manufacturing firms in Nigeria. This is in line with the findings of Glover-Akpey and Azembila (2016) who found that the number of independent members on the audit committee had no influence on the performance of the firms; but was in variance with the findings of Nubia and Kornom-Gbaraba (2018), who found strong positive effect.

Secondly, the specific objective two aimed to examine the relationship between audit committee size and performance of manufacturing firms in Nigeria. Based on tested hypothesis two result on table 4.3 (t-statistic = 2.616183; p-value = 0.0101). Since p-value 0.0101 is less than 0.05 the stipulated significant level; we therefore reject the null and accept the alternative hypothesis. The decision is that audit committee size has positive and significant influence on performance of manufacturing firms in Nigeria. This implies that audit committee size has positive significant influence on performance of manufacturing firms in Nigeria. This is in line with the findings of Zraiq and Fadzil (2018) and Asiriwuwa, Aronmwan, Uwuigbe and Uwuigbe (2018) that indicated a positive direction between audit committee size and ROA.

Thirdly, the specific objective three sought to determine the relationship between audit committee meetings and performance of manufacturing firms in Nigeria. Based on tested hypothesis three result on table 4.3 (t-statistic = 0.731088; p-value = 0.4662). Since p-value 0.4662 is greater than 0.05 the stipulated significant level; we therefore reject the alternative and accept the null hypothesis. The decision is that audit committee meetings have positive and insignificant influence on performance of manufacturing firms in Nigeria. This implies that audit committee meetings have negative insignificant influence on performance of manufacturing firms in Nigeria. This is in variance with the findings of Amer, Ragab and Shehata (2014) and Asiriwuwa, Aronmwan, Uwuigbe and Uwuigbe (2018) which revealed a positive relationship with ROE.

On relationship, the findings from table 4.2 above show that firm performance (ROA) has a positive association with audit committee size (0.255440) and audit committee meetings (0.028377) which was in line with the work of Zraiq and Fadzil (2018) that indicated a positive direction between audit committee size and ROA; and negative association with audit committee independence (-0.107743) which was in line with the work of Zabochnikova (2016) that found audit committee independence to be negatively correlated with firm performance and was in variance with the work of Amer, Ragab and Shehata (2014) that found a positive relationship between the proportion of independent directors on the board and firm financial performance. Audit committee independence has a positive association with audit committee meetings (0.394620) and negative association with audit committee size (-0.220652). Audit committee size has a negative association with audit committee meetings (-0.042332).

CONCLUSION AND RECOMMENDATIONS

Based on the findings, the study concludes that audit committee size and audit committee meetings have positive association with performance of manufacturing firms in Nigeria; whereas audit committee independence has a negative association with performance of manufacturing firms in Nigeria. Thus, the corporate governance discussions should be re-focused from independence to size and meetings of the audit committee. The study also recommends that a ceiling is pegged on the minimum number of meetings audit committee members should attend in a financial year.

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