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EFFECT OF BOARD CHARACTERISTICS AND AUDIT COMMITTEE MECHANISMS ON VALUE RELEVANCE OF ACCOUNTING INFORMATION: EVIDENCE FROM LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT

This paper study the effects of board characteristics and audit committee mechanisms on value relevance of accounting information of listed industrial goods firms in Nigeria. The research is motivated by the Nigerian Stocks Exchange reports of 2014 and the X – compliance report of 2018. The paper uses secondary data for six years period (2013 – 2018) from a sample of ten (10) out of 14 listed firms in the industrial goods sector. Multiple regression is used after adopting Ohlson (1995) model while incorporating the interactions of corporate governance variables with earnings per share and book value per share. Robustness tests were conducted to ensure validity and reliability of the results. The outcomes of the tests suggest presence of heteroscedasticity and auto correlation and, as such, panel corrected standard errors regression was used using Stata software. The study concludes that board size and audit committee size play vital roles on the value relevance of accounting information, whereas board independence and audit committee independence do not have any effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. In view of these, the study recommends, among others, that the management of industrial goods firms in Nigeria should adhere strictly to the provisions of corporate governance codes in constituting board of directors and the statutory audit committee with sufficient members relative to the firm's size. This will go a long way in improving the value of earnings and book value of equity.

Key Words: Board Characteristics, Audit Committee Mechanisms, Value Relevance, Accounting Information, Industrial Goods Firms

1. Introduction

Corporate governance researches have received attention from various researchers in relation to financial performance of firms in Nigeria and abroad. Most of these studies tend to relate some of the governance mechanisms to one or more proxies of firm's performance (under profitability) – Returns on Asset (ROA), Returns on Equity (ROE), Returns on Capital Employed (ROCE) and Returns on Investment (ROI). While other researchers studied the ability of accounting information to be reflected in stock values otherwise called value relevance of accounting information. This is because the primary aim of financial statement is provision of information for investment decision making. This information must satisfy the basic characteristics of relevance, reliability, understandability, comparability and accuracy as contained in the Generally Accepted Accounting Practice (GAAP). The existence of these characteristics gives prospective investors reliability to decide on their new investment while existing investors take decision on sustaining or withdrawing their investment. But if this information is misleading, investors may take decisions ignorantly at their expense which may lead to litigation against the affected firm.

Recent studies focused on effects on

corporate governance on value relevance of accounting information. Some of these studies have categorized it into three different dimensions – structure, expertise and meeting (Rani, 2011). Structure dimension includes audit committee size, board size and audit quality; expertise dimension represents audit committee financial literacy, audit committee independence and board independence; while meeting dimension captures audit committee meetings and board meetings. Since corporate governance codes are released to serve as a key driver of corporate accountability and business prosperity, it is expected that well established corporate governance should have positive impact on value relevance of accounting information. But researches conducted on the dimensions and levels of association between these variables show conflicting results. This is partly due to the nature of the economy or country studied because different countries have distinct corporate governance codes and the levels of compliance to the codes as well as constant regulations by relevant bodies differ from country to country.

This research work is motivated by a publication of the Nigerian Stock Exchange (NSE) on "Corporate Governance: Ideas and change in the Nigerian Capital Market" (Onyema, 2014). The paper observed that many of the companies listed in sub Saharan Africa were a byword for scandal and corruption. And that listed companies are not reporting their financials, countless dealing members contravening the rules, there were minimum protection for investors and no verifiable governance structure at the Exchange. In an attempt to solve the above problems, the NSE created a portal in which all listed firms are mandated to upload their published financial statements. On the 3rd May, 2019 the NSE published what it called an X-compliance report which its transparency initiatives to maintain market integrity and protect investors by providing compliance related information on all listed companies (NSE, 2019). The report shows that only two firms from Industrial goods sector, that is, Austin Laz & Company Plc and Dangote cement Plc uploaded their financial statements as at that date; whereas none of the firms uploaded its 2019 interim financial statements (IAS 34). The report also contains a number of firms sanctioned for default filings of financial statements and related disclosure violations.

These issues, therefore, raise the questions of role of board of directors and audit committee as it affect the value relevance of accounting information being disclosed. The research uses two proxies for board of directors – board size and board independence; and two proxies for audit quality – audit committee size and audit committee independence as independent variables in addition to basic earnings per share and book value per share. While share price is used as dependent variable based on the model adopted. The main objective of the research is to evaluate the effect of board's characteristics and audit committee mechanisms on value relevance of accounting information with particular emphasis on listed industrial good firms in Nigeria. Specifically, the paper seeks to assess the impact of board size, board independence, audit committee size and audit committee independence on value relevance of accounting information of listed industrial goods firms in Nigeria. Hence, the research hypothesizes as follows:

H_{01}: Board size has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria.

H_{02}: Board independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria.

H_{03}: Audit Committee size has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria.

H_{04}: Audit Committee independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria.

2. Literature Review

Holtz and Neto (2010) looked at the effect of board characteristics on the quality of accounting information in Brazil. The study found that the characteristics of board independence and separation of the roles of chairman and executive director positively influence the quality of accounting information reported, especially regarding the values of equity. Similar study was conducted by Alkdai and Hanefah (2012) with particular reference to Malaysian shariah-compliant companies. The findings indicated that board size is not an important factor to affect the value relevance of accounting information because of their negative and non significant relationship and there was a positive and insignificant relationship between board independence and value relevance of accounting information.

Omokhadu and Amake (2018) studied the effect of corporate governance on value relevance of accounting information evidence from Nigeria. The study used a sample of 45 listed firms over 8 years (2008 – 2015). The results showed that accounting information is value relevant on the Nigerian market; and that corporate governance practices do not lead to noticeable increase in the value relevance of accounting information. The problem with this study is that two variables – dividend per share and cash flow from operation – were not specified in the model but used in the analysis and it failed to capture panel effect of the studied firms. Musa and Masoyi (2018) studied the effect of board size on value relevance of accounting information of listed consumer goods firms in Nigeria using a sample of ten firms. The study used Generalized Least Square and found that board size has significant effect on value relevance of accounting information. But the study failed to capture board independence which is a significant variable. Also, the researchers did not test for normality of the data used.

Rani (2011) uses primary variables – audit committee financial literacy and audit committee independence as proxies of audit committee characteristics to study the effect of audit committee size expertise on the value relevance of accounting earnings. The study covered the period, 2007- 2009 with a sample of 105 companies listed on the New Zealand Stocks Exchange. Findings of the study revealed that there was no affiliation between audit committee characteristics and value relevance of accounting information in New Zealand. These findings may not be unconnected with the period covered by the study, which is only three years. Alqatamin (2018) conducted similar but more recent study using a sample of 165 non-financial companies listed on the Amman Stocks Exchange (ASE) for a period of three years (2014 – 2016). The results revealed a significant positive impact of audit committee size, audit committee independence and gender diversity on firm's performance; while experience and frequency of meetings have insignificant relationship with firm's performance.

Mitra and Adhikary (2016) examined the determining factors of audit committee independence in the financial sector of Bangladesh using a sample of 72 firms. The study established a positive relationship between audit committee size and audit committee independence. The study did not use panel data but a cross sectional regression analysis on 72 firms for 2012 fiscal year only. Kibiya, Ahmad and Amran (2016) investigated the effect of audit committee characteristics on quality of financial reporting of 101 Nigerian listed non – financial firms for the period 2010 – 2014. The results showed that audit committee monitoring mechanisms - audit committee size, audit committee share ownership and audit committee financial expertise – influence the quality of financial reporting of the studied firms.

The study of Balagobei (2017) revealed that audit committee size, audit committee meetings and audit committee expertise have a significant impact on book value per share of listed Hotels and Travel in Sri Lanka but only audit committee expertise influences earnings per share. The sample used in the study consists of 15 Hotels and Travels listed on the Colombo Stocks Exchange during the period of 2012 – 2016 (five years). Majiyebo, Okpanachi, Nyor, Yahaya and Mohammed (2018) conducted a study to examine the effect of audit committee independence and audit committee size on financial reporting quality of listed Deposit Money Banks (DMBs) in Nigeria. After using a sample of 15 listed DMBs over a period of ten years (2007 – 2016), the study revealed that audit committee independence has a negative and significant effect while audit committee size has a positive but insignificant effect on financial reporting quality of listed DMBs in Nigeria.

Theoretical Framework

The theoretical framework underpinning this study is the implicit hypothesis of capital market efficiency (Dung, 2010); otherwise called the Efficient Market Hypothesis (EMH). EMH refers to a market where there are reasonable number of rational investors and profit mazimizers competing actively with each other. Each party tries to predict future market values of individual securities. The market is also characterized by availability of current information to all participants. In an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information both on events that have already occurred and on events which, as of now, the market expects to take place in the future. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate of its intrinsic value. (Fama, 1970) identified three distinct levels (or 'strengths') at which a market might actually be efficient - Strong-form EMH, Semi-strong-form EMH and Weak-form EMH. Since the Nigerian capital market is efficient in its weak form (Markjackson & Omie, 2018), the study adopted the semi strong form of EMF using valuation model developed by Ohlson (1995) to examine the value-relevance of earnings and book value of equity (Mungly, et al, 2016; Balagobei, 2017; Almari, 2017; and Musa & Masoyi, 2018).

3. Data and Methods

Correlation research design is used in the study because its paradigm is quantitative. This research design assists in establishing a relationship among the variables as well as impact of the independent variables on the dependent variables of the study. The research population of this study covers all the 14 Industrial Goods firms listed on the Nigerian Stock Exchange as at 31st December, 2018. The research samples of ten firms, representing approximately 71% of the total population, were selected after employing three filters as follows:

1. All firms that do not close its financial statement at 31st December for the period covered of every year will be removed;

2. All firms must be listed throughout the period covered; and
3. All firms must have complete financial statement for the period covered by this study.

After applying the 1st filter, two firms (Grief Nigeria Plc and Cutix Plc) were removed leaving a total of 12 firms. The 2nd filter eliminated only one firm (Notore Chemical Industry Limited) which was listed on the 2nd August, 2018 while Meyer Plc, was eliminated when the 3rd filter was applied. The study employed the use of data from secondary source collected from published financial statements of the sampled firms for the independent variables and the list of daily stock prices found in cash craft website for the dependent variable. Panel data includes ten Industrial Goods firms for the 6 years period (2013 to 2018), giving a total of 60 firms - year observations. Ohlson (1995) model was originally adopted based on the theoretical framework of the study which depicts that a firm's share price is a function of both earning and book value of equity. Four equations were used to test the effect of board characteristics and audit committee mechanisms as independent variables on value relevance as the dependent variable. The models are specified as follows:

Original Ohlson (1995) Model

$SHRPR_{it} = \beta_0 + \beta_1 EARPS_{it} + \beta_2 BKVPS_{it} + \mathcal{E}_{it}$ …………… (1)

Where:

$SHRPR_{it}$ = Share price of firm i at time t

$EARPS_{it}$ = Basic earnings after tax per share of firm i at time t

$BKVPS_{it}$ = Book value per share of firm i at time t

β_0 = Constant or intercept.

$\beta_{1\text{-}3}$ = Coefficients of explanatory variables

ε_{it} = Error term

The selected corporate governance mechanisms are included in model 1 above – Board size (BSIZE), Board Independence (BOIND) Audit Committee Size (AUCOMS) and Audit Committee Independence (AUCOIND). This gives model 2 as follows:

$SHRPR_{it} = \beta_0 + \beta_1 EARPS_{it} + \beta_2 BKVPS_{it} + \beta_3 BSIZE_{it} + \beta_4 BOIND_{it} + \beta_5 AUCOMS_{it} + \beta_6 AUCOIND_{it} + \mathcal{E}_{it}$ .... (2)

Two control variables are used because of the variability of the firms under study – Firm Size (SIZE) and Leverage (LEV). When these are added, the resultant model becomes:

$SHRPR_{it} = \beta_0 + \beta_1 EARPS_{it} + \beta_2 BKVPS_{it} + \beta_3 BSIZE_{it} + \beta_4 BOIND_{it} + \beta_5 AUCOMS_{it} + \beta_6 AUCOIND_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \mathcal{E}_{it}$ ……………………….. (3)

Where:

BSIZE = Size or number of directors in the board

BOIND = Board independence

AUCOMS = Audit Committee Size

AUCOIND = Independence of the audit committee

SIZE = Firm size

LEV = Leverage

In order to determine the effect of corporate governance mechanisms on value relevance of accounting information, some interaction variables were used. Each of the corporate governance mechanisms are weighted by the accounting information – EARPS and BKVPS and added to the equation (Habib & Azim, 2008; Rani, 2011; Alkdai & Hanefah, 2012). This gives equation 4 below:

$SHRPR_{it} = \beta_0 + \beta_1 EARPS_{it} + \beta_2 BKVPS_{it} + \beta_3 BSIZE_{it} + \beta_4 BOIND_{it} + \beta_5 AUCOMS_{it} + \beta_6 AUCOIND_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} +$

$\beta_9 EARPS*BSIZE_{it} + \beta_{10} EARPS*BOIND_{it} + \beta_{11} EARPS*AUCOMS_{it} + \beta_{12} EARPS_{it}*AUCOIND_{it} + \beta_{13} EARPS*SIZE_{it} + \beta_{14} EARPS_{it}*LEV_{it} + \beta_{15} BKVPS*BSIZE_{it} + \beta_{16} BKVPS*BOIND_{it} + \beta_{17} BKVPS*AUCOMS_{it} + \beta_{18} BKVPS_{it}*AUCOIND_{it} + \beta_{19} BKVPS*SIZE_{it} + \beta_{20} BKVPS_{it}*LEV_{it} + \mathcal{E}_{it}$ .... (4)

Share price (in naira) used in the study were price of shares displayed three months after financial year end of the firm. Where there were no dealings on that day, a day or two before or after it is taken into consideration. Earnings per share (in kobo) is measured as the ratio of profit after tax to the nominal value of ordinary share issued and paid. Book value per share (in kobo) is computed as the ratio of shareholders' fund to the nominal value of ordinary share issued and paid. Board size is the number of directors that constitute the board while board independence is the ratio of number of independent directors to the total board size. Audit committee size comprises number of directors and shareholders' representatives in the statutory audit committee whereas audit committee independence is measured as the ratio of Shareholders representatives in the audit committee to its total size. Size is measured by the natural logarithm of Total assets of the firm, while leverage is measured as the ratio of total liabilities to total assets, which is financial leverage.

4. Results and Discussions

A cognate discussion begins with summary of the descriptive statistics on dependent variable and independent variables with minimum value, maximum value, mean and standard deviation. This is followed by correlation matrix depicting the relative correlation between the dependent variable and the independent variables; and the correlation (if any) among the independent variables. Finally, the summary of the regression results computed using Stata is presented after taking into consideration various robustness tests to ensure accuracy of results presented and analyzed.

4.1 Descriptive Statistics and Normality Test

Table 4.1.1 contains the results of mean, standard deviation, minimum and maximum, of the variables used in the study.

Table 4.1.1: Results for descriptive statistics

Variable	Mean	Std. Dev.	Min	Max	N
SHRPR	28.335	59.97334	0	260.00	60
EARPS	266.791	532.475	-58.25	2825.36	60
BKVPS	1335.741	2253.457	-106.28	11252.86	60
BSIZE	7.917	2.309	5	15	60
BOIND	.064	.0894	0	0.33	60
AUCOMS	5.483	.813	4	6	60
AUCOIND	.495	.034	0.4	0.60	60
SIZE	6.884	.957	5.42	9.24	60
LEV	.549	.716	0.02	5.53	60

Source: Stata Output, 2019

From Table 4.1.1, the average share price is ₦28.34 with standard deviation of approximately ₦60. This means that the share price deviates from mean to both sides by ₦60. This indicates that there is high dispersion from the mean value of share price recorded within the period of our study. The minimum share price recorded within the study period is ₦0, indicating that some firms do not have trading result on the NSE as at the date reported by the study while the maximum share price is ₦260.00 by Dangote Cement Nig PLC in 2017 . earnings per share has overall average of 257 kobo with standard deviation of approximately 533 kobo. This also reveals high dispersion of earnings per share among the studied companies. The minimum earnings per share is -58.25 kobo because some firms recorded loss in some years within the period of study while highest earnings per share for the period is 2825 kobo by Dangote Cement Nig PLC in 2018. The overall mean of book value per share is 1336 kobo with approximate standard deviation of 2254 kobo. This means that book value per share deviates from its mean value to both sides by only

2254 kobo. The minimum book value per share recorded during the period is -105.28 kobo because some firms recorded negative shareholders' fund within the period of study while the maximum is **11252.86** kobo by Cement Company of Northern Nigeria PLC in 2017. On the other hand, the average board of directors' size is 8 directors while the minimum and maximum are 5 directors and 15 directors respectively. This implies the studied companies vary in size because of high dispersion between the two values. The code of corporate governance specifies that the board should be of a sufficient size to effectively undertake and fulfill its business (FRCN, 2019).

The mean board independence is 0.06, with minimum and maximum values at 0 and 0.33 respectively. Audit committee has a minimum number of 4 and a maximum of 6, with mean and standard deviation values at 5.5 and 0.8 respectively. Audit committee independence has a mean value of 0.5, with standard deviation of 0.03. The minimum and maximum values are 0.4 and 0.6 respectively. The size of the firms has a mean value of 6.9 and standard deviation of 1.0, with minimum value of 5.42 and maximum value of 9.24. Lastly, leverage recorded mean and standard deviation values at 0.55 and 0.72 respectively and the minimum and maximum values at 0.02 and 5.53 respectively.

Table 4.1.2: Results of Normality test using Shapiro-Wilk W test for normal data

Variable	Obs	W	V	Z	Prob
SHRPR	60	0.55256	24.322	6.879	0.00000
EARPS	60	0.59533	21.997	6.662	0.00000
BKVPS	60	0.62560	20.351	6.495	0.00000
BSIZE	60	0.91681	4.522	3.252	0.00057
BOIND	60	0.86547	7.313	4.289	0.00001
AUCOMS	60	0.94025	3.248	2.539	0.00556
AUCOIND	60	0.98321	0.913	-0.197	0.57804
SIZE	60	0.88511	6.245	3.948	0.00004
LEV	60	0.44188	30.338	7.355	0.00000

Source: Stata Output, 2019

Table 4.1.2 above shows results of normality test using Shapiro-Wilk W test for normal data. From the table, it can be seen that all the variables have probabilities of less than 1% with the exception of audit committee independence. This implies that all variables of the study are not normally distributed except Audit Committee independence. Hence, Spearman Rank correlation is used instead of Pearson correlation.

4.2 Heterocesdasticity Test

The presence of heteroscedasticity signifies that the variation of the residuals or term error is not constant which would affect inferences in respect of beta coefficient, coefficient of determination (R^2) and F statistics of the study.

Table 4.2 Results for Heterocesdasticity and Hausman Specification Tests

Tests Statistics	chi2 Value	Probability of Chi2
Heterocesdasticity Test	26.24	0.0000
Hausman Specification Test	19.25	0.0860

Source: Stata Output, 2019

From the results of the test in table 4.2, it reveals that there is presence of heteroscedasticity because the probability of the chi square is less than 5%. Hausman test is performed to choose between fixed and random effect models. From the results shown in table 4.2, the Probability (P) value is not significant (> 0.05) implying that RE is more efficient than FE. But the result of Lagrangian Multiplier (LM) test for random effect shows a chi square value which is not significant at all implying that OLS is more robust than RE, hence it is used in our final analysis.

4.3 Correlation Matrix

In order to detect the presence of auto correlation among the independent variables of the study, correlation matrix is presented on Table 4.3.

Table 4.3: Results for Correlation Matrix

Variable	SHRPR	EARPS	BKVPS	BSIZE	BOIND	AUCOMS	AUCOIND	SIZE	LEV
SHRPR	1.0000								
EARPS	0.5394*	1.0000							
BKVPS	0.4943*	0.8351*	1.0000						
BSIZE	0.5874*	0.4239*	0.4681*	1.0000					
BOIND	0.3879*	0.7564*	0.7833*	0.5946*	1.0000				
AUCOMS	0.5379*	0.5147*	0.4540*	0.4234*	0.5406*	1.0000			
AUCOIND							1.0000		
SIZE	0.5394*	0.8175*	0.8597*	0.4637*	0.7350*	0.4848*	0.2178	1.0000	
LEV				-0.2440			0.2837*		1.0000

Source: Stata Output, 2019

Note: * indicates that correlation is significant at 1 percent or 5 percent

Table 4.3 contains results of Spearman Rank Correlation (SRC) values between dependent and independent variables as well as between independent variables themselves. The SRC is used because our data of the study do not satisfy the normality distribution as shown in table 4.1.2. This aids in buttressing our analysis when it comes to interpreting the final regression results. Table 4.3 depicts that the correlation between dependent variable and the independent variables are very high. The table shows that five out of the 6 independent variables and firm size are positively correlated with the dependent variable. The correlation coefficients range from 39% to 59%. All the correlations are statistically significant at 1%. But audit committee independent and leverage are not correlated to the dependent variable at all. The highest positive correlation of 84% is between earnings per share and book value per share which is also significant at 1%. This may not be unconnected with the fact that both variables have the same surrogates, which is nominal value of ordinary shares issued and paid. This is followed by a positive correlation of 76% between earnings per share and board committee independence. These correlation results imply that there is present of autocorrelation among the studied variables. This is corrected in the study before final results are analyzed.

4.4 Regression Results

Table 4.4 shows the result of the fourth equation after correcting for heteroscedasticity and autocorrelation. This result is used to test the four hypotheses of the study. Four models were specified in the study, but the final model is used in the analysis and interpretation.

Table 4.4.3: Regression result of the effect of board size and audit committee on value relevance of accounting information after heteroscedasticity and autocorrelation correction (Dependent Variable Share Price)

Variables	Equation 4		
	Coefficient	z - Value	Sig.
EARPS	-1.041762	-0.46	0.643
BKVPS	1.122826	1.63	0.104
BSIZE	2.251437	1.29	0.198
BOIND	-120.8966	-1.77	0.077
AUCOMS	15.24206	2.90	0.004
AUCOIND	357.2926	1.57	0.116
SIZE	3.239666	0.57	0.571
LEV	-21.55371	-3.11	0.002
EARPS*BSIZE	-.0304659	-2.25	0.025
EARPS*BOIND	-.0894421	-0.69	0.491
BKVPS*BSIZE	-.0094312	-1.73	0.083
BKVPS*BOIND	-.1954475	-1.43	0.152
EARPS*AUCOMS	.1405632	3.64	0.000
EARPS*AUCOIND	2.298471	0.51	0.608
BKVPS*AUCOMS	-.0655492	-2.21	0.027
BKVPS*AUCOIND	-1.948479	-1.47	0.142
EARPS*SIZE	-.0608715	-2.14	0.032
EARPS*LEV	.0670109	2.24	0.025
BKVPS*SIZE	.0392559	4.40	0.000
BKVPS*LEV	.023166	2.18	0.029
Constant	-281.5577	-2.27	0.023
R^2	0.9328		
Wald chi2	4302.11		
Prob Wald chi2	0.0000		

Source: Stata Output, 2019

Table 4.4 shows the result of the fourth equation after correcting for heteroscedasticity and autocorrelation. This result is used to test the four hypotheses of the study. Regarding the effect of board size on value relevance of accounting information of listed Industrial Goods firms in Nigeria, the findings reveal that EARPS*BSIZE has a coefficient of -0.03 which is statistically significant at 5% (P = 0.011) while BKVPS*BSIZE has a coefficient of -0.01 which is only significant at 10%. The combined effects of these interaction variables indicate that the board size is an important factor to affect the value relevance of accounting information especially on the value of earnings per share. This implies that the higher the board size the lower the value relevant of earning and book value with 0.03 and 0.01 respectively. This result is consistent with the well known point of view in corporate governance related literature that the smaller board of directors are more effective mechanism to monitor, because of higher degree of membership coordination they have, less communication difficulties they face and lower information costs they borne. Furthermore, the study does not support the results of Hussain and Hanefah (2012) who found that board size is not an important factor to affect the value relevance of accounting information, because of their negative non-significant relationship. The findings also contradicts the results of Alkdai and Hanefah (2012) indicating that board size is not an important factor to affect the value relevance of accounting information because of their negative and non significant relationship. But the finding is in line with the study of Musa and Masoyi (2018) which found that board size has significant effect on value relevance of accounting information. Therefore, the results in table 4.4.3 show evidence to reject the null hypothesis one which states that board size has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria.

Hypothesis two states that board independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. The results in table 4.4 shows that the coefficients of EARPS*BOIND and BKVPS*BOIND are - 0.09 and - 0.19 respectively both of which are not significant at all. This implies that board of directors' independence has no significant impact on value relevance of accounting information and hence, we fail to reject null hypothesis two of the study which states that board independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. This finding is in line with the study Alkdai and Hanefah (2012) which revealed that there was a positive and insignificant relationship between board independence and value relevance of accounting information. But on the other hand, the finding contradicts that of Holtz and Neto (2010) which found that the characteristics of board independence positively influences the quality of accounting information reported, especially regarding the values of equity.

On the other hand, the coefficient of EARPS*AUCOMS is 0.14 which is positive and statistically significant at 1% ($P = 0.000$) while BKVPS*AUCOMS has a negative coefficient of -0.07 which is also significant at 5% ($p = 0.027$). This result implies that size of the audit committee is a significant variable affecting value relevance of accounting information of listed industrial goods firms in Nigeria. The positive coefficient of 0.14 implies that the higher the audit committee size, the higher the relevance of accounting information in in relation to earnings per share, while a unit increase in audit committee size will result to 0.07 decrease in value of accounting information in relation to book value. Earlier, the study hypothesizes that audit committee size has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. This result, therefore, gives us adequate evidence to reject this hypothesis. The finding of this study contradicts results of Rani (2011) and Majiyebo etal (2018), which established that audit committee size has insignificant effect on value relevance of accounting information. On the other hand, the finding supports the work of Alqatamin (2018), Kibiya etal (2016) and Balagobei (2017).

Table 4.4 also provides results for the regression equation after incorporating AUCOIND and its interaction with EARPS and BKVPS. The result is used to test hypothesis four of the study which states that audit committee independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. The coefficients of EARPS*AUCOIND and BKVPS*AUCOIND are 2.30 and -1.95 respectively which are not statistically significant at all. This also implies that AUCOIND is not impacting on the value relevance of accounting information in relation to book value of equity. This result provides sufficient evidence not to reject the hypothesis that audit committee independence has no significant effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. This is not in line with available literatures that, with the features of audit committee independence, the committee can work more effectively towards curtailing earnings management (Roni, 2011). The findings of this study contradict the results of Majiyebo, etal (2018) that audit committee independence has a negative and significant effect on financial reporting quality of listed DMBs in Nigeria. But the finding is in line with the results of Alqatamin (2018) which revealed a significant positive impact of audit committee independence on firm's performance of companies listed on the Amman Stocks Exchange (ASE).

5. Conclusion and Recommendations

The study looks at the effects of board's characteristics and audit committee mechanisms on value relevance of accounting information with particular reference to listed firms in the Industrial goods sector of Nigerian economy. Based on the data collected, analyzed and interpreted, the study concludes that board size and audit committee size play vital roles on the value relevance of accounting information. On the other hand, the number of independent directors that constitute the board members and number of shareholder's representative in the statutory audit committee independence do not have any effect on value relevance of accounting information of listed Industrial Goods firms in Nigeria. In view of these, the study recommends thus:

i. The management of industrial goods firms in Nigeria should adhere strictly to the provisions of corporate governance codes in constituting board of directors and the statutory audit committee with sufficient members relative to the firm's size. This will go a long way in improving the value of earnings and book value of equity.

ii. On the issue of board independence, it is recommended that management should incorporate sufficient independent directors to facilitate transparency.

iii. The Audit committee size should be sufficient enough to carry out its functions so as to ensure truthfulness and fairness of the presented financial statements.

iv. The Statutory audit committee should include more of the shareholders representatives and their performance reviewed annually by the shareholders so as to ascertain their eligibility to continue in the committee or replaced by more competent ones.

v. The Financial reporting council of Nigeria (FRCN) should be reviewing the CGC on yearly basis and the level of compliance by listed firms should be published as a report and uploaded on the council's website.

REFERENCES

Adhikary, B. K and Mitra, R. K (2016). Determinants of Audit Committee Independence in the Financial Sector of Bangladesh, 2 (2) 46 – 56, *Applied Finance and Accounting*, retrieved from https://pdfs.semanticscholar.org/9455/8d2281a91416d3f383e40b8f70efa832ad21

Alkdai, H. K. and Hanefah, M. M (2012). Board of Directors' Characteristics and Value Relevance of Accounting Information in Malaysian Shariah-Compliant Companies: A panel data analysis, *Economics and Finance Review,* 2(6) 31 – 44, August, 2012 ISSN: 2047 – 0401, Available online at http://www.businessjournalz.org/efr

Almari, M. O. S. (2017). The impact of Corporate Governance Mechanisms on Value Relevance of Accounting Information: Evidence from Jordanian, *Research Journal of Finance and Accounting,* 8(17), 60 – 66, retrieved from https://pdfs.semanticscholar.org/3dd5/a96d36188f998c2d1d2aaa0b9bea8de5ca54.pdf

Alqatamin, R. M. (2018). Audit Committee Effectiveness and Company Performance: Evidence from Jordan, *Accounting and Finance Research*, 7(2) retrieved from www.sciedu.ca/journal/index.php/afr/article/download/12929/7997 pp 48 – 60

Balagobei, S (2017). Audit Committee and Value Relevance of Accounting Information of Listed Hotels and Travels in Sri Lanka, *Asian Journal of Finance & Accounting*, 9 (2) available at www.macrothink.org › Home ›

Ball, R. & Brown, P. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research. 6, 159-178* retrieved from econ.au.dk/fileadmin/...Accounting/...Accounting/.../Ball_Brown_JAR_1968.pdf

Beaver, W. (1968). The Information Content of Annual earnings announcement, *Journal of Accounting research 6,* 67 - 92 retrieved from https://www.jstor.org/stable/pdf/2490070

Dung, N. V (2009). Value-Relevance of Financial Statement Information: A Flexible Application of Modern Theories to the Vietnamese Stock Market. DEPOCEN Working Paper Series retrieved from http://www.veam.org/papers2009/Value-Relevance%20of%20Financial%20Statement%20Information_NguyenVietDung.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work'. *Journal of Finance* 25, 383{341. Retrieved from https://www.jstor.org/stable/2325486

Fiador, V. O. (2011). Corporate governance and value relevance of financial information: evidence from the Ghana Stock Exchange, *The International Journal of Business in Society,* 13(2) retrieved from https://www.emeraldinsight.com/doi/abs/10.1108/14720701311316689

Gujarati, D. N., and Porter, D. C. (2009). *Basic econometrics*. Boston, Mass: McGraw-Hill.

Habib, A. (2006). Corporate governance and the value-relevance of accounting information: Evidence from Australia, *Accounting Research Journal,* 21(2) retrieved from https://www.emeraldinsight.com/doi/abs/10.1108/10309610810905944

Habib, A and Azim, I (2008): Corporate governance and the value-relevance of accounting information: Evidence from Australia, *Accounting Research Journal*, 21 (2), . 167-194 retrieved from https://www.researchgate.net/.../23648894_Corporate_governance_and_the_value-rel...

Holtz, L and Neto, A. S. (2014). Effects of Board of Directors' Characteristics on the Quality of

Accounting Information in Brazil, Paper presented at the VII Anpcont Congress, Fortaleza, CE, Brazil, June 2013. R. Cont. Fin. – USP, São Paulo,25(66), 255-266, set./out./nov./dez. 2014

Kibiya, M. U., Ahmad, A. C. and Amran, N. A. (2016). Audit Committee Independence, Financial Expertise, Share Ownership and Financial Reporting Quality: Further Evidence from Nigeria, *International Journal of Economics and Financial Issues*, 6(S7) 125-131, retrieved from https://www.researchgate.net/.../311038021_Audit_Committee_Independence_Financial..

Majiyebo, O. J., Okpanachi, J., Nyor, T., Yahaya, O. A. and Mohammed, A. (2018). Audit Committee Independence, Size and Financial Reporting Quality of Listed Deposit Money Banks In Nigeria, *IOSR Journal of Business and Management (IOSR-JBM),* 20 (2) 40-47 retrieved from https://www.researchgate.net/.../311038021

Marshall, J. B. (2015). Corporate Governance Practices: An Overview of the evolution of Corporate Governance Codes in Nigeria, *International Journal of Business & Law Research,* 3(3), 49-65 retrieved from seahipaj.org/journals-ci/sept-2015/IJBLR/full/IJBLR-S-4-2015.pdf

Mungly, Y., Babajee, R. B., Maraye, N. P., Seetah, K. and Ramdhany, N. G. (2016). *A Study of Corporate Governance and Value Relevance of Accounting Information: Evidence from listed Companies in Mauritius*, Proceedings of the Fifth Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP16Mauritius Conference) Port Louis, Mauritius, retrieved from globalbizresearch.org/Marutius_Conference2_2016_Jan/docs/PDf/FAB/M629.pdf

Musa, U. M. & Masoyi, D. A (2018). Board size and value relevance of Accounting Information of listed Consumer Goods firms in Nigeria, *Kwararrafa University Journal of Management Sciences,* 3(2), ISSN 2536-7617

Nigerian Stocks Exchange (2019). Circular on the adoption and compliance with the Nigerian Codes of corporate governance, available at www.nse.com.ng/.../corporate.../Circular%20on%20the%20Adoption%20and%20Co...

Omokhudu, O. O. & Amake, C. C (2018): Corporate Governance and Value Relevance of Accounting Information: Evidence from Nigeria, *Research Journal of Finance and Accounting,* 9(2) retrieved from https://iiste.org/Journals/index.php/RJFA/article/download/40814/41969

Onyema, O. N. (2014). *Corporate Governance: Ideas & Changes in the Nigerian Capital Market*, a lecture presented at the Society for Corporate Governance Executive Breakfast Meeting, Lagos, Nigeria

Rani, M. (2011). *The Effects of Audit Committee Characteristics on the Value Relevance of Accounting Information-Evidence from New Zealand*, (M. Sc Dissertation) retrieved from https://openrepository.aut.ac.nz/bitstream/handle/10292/1324/RaniM.pdf?sequence