BOARD DYNAMICS AND EARNINGS MANAGEMENT OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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Abstract
This study examines the impact of board dynamics on earnings management of listed industrial goods firms in Nigeria. The study adopted causal research design, the population of the study is made up the entire thirteen (13) industrial goods firms in Nigeria listed the floor of Nigerian Exchange group as at 31st December, 2022, census sampling technique was used to arrive at a sample size of thirteen (13) industrial goods firms. However, the data were extracted from annual reports and accounts of the sampled firms for the period of ten (10) from 2013-2022. The multiple regression was used as a techniques of data analysis, regression result shows that board gender, board nationality, board risk and board expertise has a negative and significant impact on earnings management of the sampled firms, while board reputation has a positive and insignificant impact on earnings management. Based on the findings, the study concluded that board gender, board nationality, board risk and board expertise reduce the earnings management. Board reputation does not affect earnings management. Based on findings and conclusion, it is therefore, recommends that the management of listed industrial goods companies in Nigeria should increase the presence of women directors on boards. The portion of female members on board should be 30% as proposed by the critical mass theory and that of male members should be 70% as this will help in reduce manipulating of earnings by the management.
Keywords: Board reputation, Gender, Risk, Nationality, Expertise and Earnings Management

Introduction

Recently, the modern business environment has been generally acknowledged that it is becoming riskier, more competitive and highly uncertain and also it is more difficult to control or predict the factors that will influence the performance of companies (Githaiga,et al, 2022). As the competitive force increases among companies, some managers may commit frauds for a higher company's earnings performance; hence financial scandals frequently occur due to managers' own interests. Besides, the financial scandals and frauds cast a doubt on the reliability of the financial statements. Earnings quality has been measured by different researchers and there are many different measures to indicate the earnings quality, such as, investor responsiveness, timeliness, persistence, smoothness, restatements and accruals (Dechow, et al. 2010).

For more than 20 years, the topic of earnings management in accounting has been extensively studied. Most people agree that earnings management has a detrimental impact on the caliber of financial reports. Several words used in accounting literature are synonymous with earnings management, including income smoothing, creative accounting, cooking the books, earnings manipulation, and accounts manipulation, to name a few. In addition to employing accounting tricks to distort profits, managers often use actual transactions. Eriabie and Dabor (2017) demonstrate that managers manipulate sales, overstock inventories, and cut back on discretionary spending in order to prevent losses or missing analyst projections. Furthermore, according to Bens and Hassan (2013), companies also manipulate R&D expenses in order to dilute earnings per share or smooth out reported results.

Enron's bankruptcy, which is the most serious case in US, happened in 2001. In addition to Enron, there are some accounting scandals in the UK too, such as the scandal of the Royal Bank of Scotland in 2008 and the recent Tesco scandal in 2015. Tesco increased profit by postponing accrued expenses and recognized the earning early for earnings management. These scandals raise concerns about the efficiency of the board of directors in providing reliable financial report to shareholders and external investors (Larcker & Tayan, 2016). In the past few decades, Enron, Lehman Brothers, WorldCom and many other fraud cases are even permanently closed. All of these scandals and frauds cases are directly or indirectly associated with earnings management. Hence, earnings management is one of the frontiers of modern accounting and corporate governance research.

Corporate governance structures are frequently seen as a major mechanism to guarantee the quality of financial statements, such as the board of directors (Anaike & Okegbe, 2023). In order to minimize the number of financial scandals and improve the earnings quality, the board seems more important function its role in organization. Cho and Chung (2022) stated that the effectiveness and independence of the boards reduce the agency cost by exercising control of decision, which involves monitoring the performance of the management team. The boards should not only control or monitor the management team but also play the role in strategies that include scanning the business environment, developing the business mission, selecting and implementing the choices of the strategies (Wang,2019). As the boards are increasingly important, it is necessary to classify the characteristics of the boards, and identify the characteristics which make the role of boards in controlling and monitoring more effective.

The controversy this study will address is considering different positions of previous studies that some group of scholars (Usman & Usman 2022, Anaike & Okegbe 2023, Almutairi & Quttainah 2020, Githaiga, et al, 2022, Du et al. 2017) are of the view that board gender diversity, board reputation, board nationality, board risk and board financial expertise reduce earnings management, while others (Arioglu (2020) Hooghiemstra et al. (2019), Metawee, (2013) are with the contrary opinion that board gender diversity, board reputation, board nationality, board risk and board financial expertise does not reduce earnings management of listed firms. therefore, what is left to be known is whether those features of directors play a significant role curtailing earnings management or not. Thus, this study is conducted to address if such features of director have impact on earnings management of listed industrial goods firms in Nigeria.

Additionally, it has been observed that most of the studies linking board dynamics and earnings management are conducted in developed countries and few studies exist in emerging economies especially in Nigeria. However, most of those studies were not recent in terms of the research period in which most of their findings must have been overtaken by events especially with the new reforms by the regulators. Therefore, this study is expected to fill the obvious gap by extending the period to cover 2022.

Moreover, literature reviewed suggest that there is a lack of studies regarding the impact of some specific board of director's, attributes with earnings management, specifically (board expertise and board reputation) on earnings management. By including these factors in the study, a better understanding of earnings management practices in Nigerian companies may be created. In addition, this study includes board financial expertise and board reputation which is another important variable that has not been included in previous studies on earnings management in Nigeria.

Also, in view of the paradigm of this study; positivism, where quantitative approach will be used, the methodology needs to be rigorous. Some of the previous studies conducted especially in Nigeria, used only regression analysis to capture causation effect/relationship between board dynamics and earnings management without taken care of some robustness test which create great lapses and left a vacuum to be filled. Therefore, this study will utilize parametric tools and non- parametric tools of analysis, robustness test such as heteroscedasticity, multi-collinearity, hettest3 and hausman specification test in order to improve the reliability and validity of the statistical inferences derivable from the result.

The motivation of this research practically is expected to serve as addition to knowledge in the area of board dynamics and earnings management of industrial goods firms. Practically, the findings of this research will serve as a policy guide for the shareholders, management and other stakeholders of firms in Nigeria. This research is expected to contribute to the body of existing knowledge through the following ways: The study contributes to the existing knowledge by expressing the views of different academic scholars with the regards to the board dynamics as such the study may serve as a source of academic literature. Hence, this study aim at examines the impact of board dynamics (proxies by board gender, board nationality, board ethnicity board reputation and board expertise) on earnings management of listed industrial goods firms in Nigeria.

Review of Empirical Studies

This study reviewed empirical studies that looked into board dynamics (proxies by board gender, board nationality, board risk board reputation and board expertise) how they react to earnings management.

Board Gender Diversity and Earnings Management

Previous studies have conceptualized board gender diversity as the inclusion of female on board members of companies. According to Arun et al. (2015), the female director variable is measured as the proportion of female board members to total board members. Female directors are characterized by better independent thinking and monitoring of the activities of executives more effectively than male managers (Adams et al., 2010). Many previous studies in have provided evidence that female managers in general have a higher degree of ethical retention than male managers (Bernardi & Arnold, 1997). Female directors generally do not like to take risks in decision-making and do not want to carry out activities that affect their reputation. Empirically, Usman, and Usman, (2022) examined the Mediating effect of audit committee on board dynamic and creative accounting of listed non-financial firms in Nigeria from 2012 to 2019. The study used causal research design. The data was extracted from the annual reports and accounts of sampled of the firms. The data was analysed using structural equation model/partial least square regression. The study found the board gender diversity has negative impact on earnings management of listed non firms in Nigeria. Githaiga, et al (2022) examined the effect of board characteristics on earnings management (EM) from a developing region perspective. The data was extracted from 88 listed firms in the East African Community (EAC) for the period between 2011 and 2020. The study used the system generalized method of moments (SGMM) estimation model to take care of potential endogeneity and reverse causality. The findings revealed that board gender has negative and significance impact on earnings management Contrary to above findings Arioglu (2020) studied non-financial companies and found no impact of female directors on earnings management.

$H0_1$: Board gender diversity has no significant effect on earnings management of listed Industrial goods firms in Nigeria

Board Nationality and Earnings Management

The presence of foreign directors on the board is expected to bring in knowledge and expertise from foreign markets through their different culture and educational professional backgrounds (Handa, 2021). The internationalization of business imposes the heterogeneity on the board for a firm to become more competitive. Hooghiemstra et al. (2019) examined the impact of board characteristics on earnings management of Nordic firms studied a sample of Nordic listed firms on how board internationalization may affect monitoring quality of boards. They found that the presence of non-Nordic foreign directors is positively associated with earnings management, s Almutairi and Quttainah (2020) report that while in conventional banks the presence of foreign directors reduces the ability of boards to restrict the opportunistic behavior of management, in Islamic banks the presence of foreign directors increases this ability. In addition, Du et al. (2017) in a sample of Chinese listed firms, found that the presence of foreign directors on corporate boards helps in prevention of earnings management practices. Arioglu (2020), who studied non-financial companies listed on the Borsa Istanbul between 2009 and 2017, found no evidence of female directors' impact on earnings management. Anaike and Okegbe (2023) Examined the effect of female boardroom participation on earnings management of listed manufacturing firms in Nigeria from 2012-2021.Ex-Post Facto research design was employed. The population of twenty (21) listed manufacturing firms, the used census sampling techniques to arrive at sample size of 15 firms. The results showed that female chief executive officer has a strong significant but negative effect on discretionary accruals of listed manufacturing firms in Nigeria.

$H0_2$: Board Nationality has no significant effect on earnings management of listed Industrial goods firms in Nigeria

Board Reputation and Earnings Management

Diermeier (2018) found that positive firm reputation takes a lengthy duration of time to establish. By setting strong guiding principle and stressing the necessity to protect the firm's reputation, the board of directors can assist management dodge short-sighted errors. Moreover, reputable inside directors can enhance the value of debtors' financial reporting and decrease agency danger in loan contracting (Lin, Song & Tiang, 2016). On the other hand, board reputation possessed a positive substantial relationship with management earnings forecasts (Chan, et al 2013) Usman, and Usman, (2022) examined the Mediating effect of audit committee on board dynamic and creative accounting of listed non-financial firms in Nigeria from 2012 to 2019. The causal research design was used. The study used secondary source of data extracted from the annual reports and accounts of the sampled firms. The data was analysed using structural equation model/partial least square regression. The study found the board reputation has negative impact on earnings management of listed non-financial firms in Nigeria.

$H0_3$: Board Reputation has no significant effect on earnings management of listed Industrial goods firms in Nigeria

Board Risk and Earnings Management

Risk management committee decreases the desire of the management to alter the reported earnings in a firm. Setting up risk management committee lessens the real earnings sales via abnormal production. This is a signal that creating self-determining risk management committee will advance the excellence of reporting (Alhaji, et al 2018). Neffati, et al. (2011) contend that, the high risk rises, the further the manager would be moved to manage earnings, the manager wishes to display his skills by satisfying numerous views and charming fresh investors. Usman, and Usman, (2022) examined the Mediating effect of audit committee on board dynamic and creative accounting of listed non-financial firms in Nigeria from 2012 to 2019. The causal research design was employed. The study used secondary source of data to extracted data from the annual reports and accounts, of the sampled firms. The data was analysed using structural equation model/partial least square regression. The study found the board risk has a negative impact on earnings management of listed non-financial firms in Nigeria.

$H0_4$: Board Risk has no significant effect on earnings management of listed Industrial goods firms in Nigeria.

Board Financial Expertise and Earnings Management

Board expertise (FAB) According to the Upper Echelon theory, the level of education of the senior management can influence the strategic choice decisions of the managers and therefore firm performance. Directors with expertise in finance and accounting can formulate corporate strategies and have extensive experience in setting higher requirements for audit quality (Carcello et al., 2006) and limiting earnings management (Park & Shin, 2004). Alzoubi (2018) found that board expertise limits earnings management. However, other studies have shown the opposite result that disputes in the board of directors are more common when there are members with expertise in financial accounting on the board. Board members' educational and knowledge level is a key determinant of board effectiveness (Yusoff, 2010). Members of the board with financial and accounting knowledge are familiar with the financial reporting framework and have a deeper understanding of the preparation and interpretation of financial reports, thus mitigating earnings manipulation. Dienes and Velte (2016) argue that it is impossible for board members without sufficient financial expertise to advise other board members. Using a sample of 86 industrial companies listed on the Amman Stock Exchange from 2007 to 2010; Alzoubi (2018) found that the financial expertise of the board is significant and negatively associated with earnings management, thus suggesting that board members with accounting and finance expertise are efficient in limiting earnings management. Bédard et al. (2004) examined the association between the financial and governance of board audit committees and aggressive EM. Using a sample of 37 firms listed in the Nigerian Stock Exchange and data for 2014 to 2018, Asogwa et al. (2019) found that the quality of earnings improved significantly with a proper mix of financial expertise and legal skills in the board. Equally, Githaiga et al (2022) examined the effect of board characteristics on earnings management (EM) from a developing region perspective. This study employs data drawn from 88 listed firms in the East African Community (EAC) for the period between 2011 and 2020. The study used the system generalized method of moments (SGMM) estimation model to take care of potential endogeneity and reverse causality. The findings revealed a board financial expertise had a negative and significant effect on earnings management.

$H0_5$: Board Financial Expertise has no significant effect on earnings management of listed Industrial goods firms in Nigeria

Methodology

This study fits post-positivist paradigm which is quantitative in nature, because the variables of the study can be measured using numbers and thus, it uses quantitative approach. This study adopts causal research design due to the fact that it can be used to extract data from historical records, and it is among the most efficient designs used in finding the relationship between two or more variables and the influence of one variable on another. The study made used of all the 13 industrial goods firms in Nigeria publicly quoted on NSE as at 31st December, 2022 as its population. All the firms have been utilized as the sample by adopting census technique of sampling. Only secondary source of data was utilized and it was extracted from the accounts and reports (financial Statements) quoted on the NSE as at 31^{st}

December 2022. The study used the period of ten (10) years form (2013-2022). The study used descriptive, correlation and multiple regression analysis as a technique for data analysis.

Table 1: Variables and Their Measurement

Variables/Proxies	Variables Measurement	Source
Dependent Variables		
Discretionary Accruals (DCCR)	Measured by absolute values of the residuals of discretionary accruals using modified	Collins (2017) model Collins, Pungaliya and Vijh (2017)
Independent Variables		
Board Gender Diversity (BG)	Proportion of women directors to the total board members	Anaike and Okegbe (2023)
Board Nationality (BN)	Proportion of foreign members to the total board members	Musa and Aminu, (2018).
Board Reputation (BR)	Proportion of board members with national Honor to the total board members	Usman, and Usman, (2022).
Board Risk (BRK)	Proportion of Risk Management committee directors to the total board members	Usman, and Usman, (2022), Danial and AbdulRahman, (2014)
Board Expertise (BE)	Proportion of board members with knowledgeable in Accounting and Finance to the total board members	Anaike and Okegbe (2023)
Control Variables		
Leverage (LEV)	Proportion of total debt to total assets	Abubakar, Abdullahi Alakantara and Saleh (2021).
Firm Size (FSZ)	Natural Logarithm of total assets.	Abubakar, Sulaiman and Haruna (2018).

Source: Compiled by Authors, 2023

Model Specification

The following models were used to empirically test the hypotheses formulated. The dependent variable model representing earnings management is presented as follows;

$TA_{it} /At\text{-}1 = \beta_0 + \beta_1\Delta REV_{it} /A_{t-1} + \beta_2\Delta NREC_{it} /A_{t-1} + \beta_3PPE_{it\ t-1}/A_{t-1} + \varepsilon_{it}$ i

$TA_{it} /A_{t-1} =\beta_0+\beta_1\Delta REV_{it} /A_{t-1}+\beta_2\Delta NREC_{it}/A_{t-1}+\beta_3PPE_{it\ t-1}/A_{t-1}+\beta_4INTG_{it\ t-1}/A_{t-1} + \boldsymbol{\varepsilon}_{it}$ ii

$ACCR=\beta0_{it}+\beta1\Delta REV_{it}+\beta2\Delta NREC_{it}+\beta3INV_{it}+\beta4PPE_{it}+\beta5INTG_{it}+\beta6CL_{it}+\beta7NCL_{it}+\varepsilon_{it}$-iii

$TA_{it}/Assets_{it-1}=\beta_0 + \beta_1 1/Assets_{it-1} + \beta_2 (\Delta REV\text{-}\Delta AR)_{it} / Assets_{it-1} + \beta_3 PPE_{it} / Assets_{it-1} + \beta_4 NI_{it-1} / Assets_{it-1} + \beta_5 Sales_{it} - Sales_{it-1} / Sales_{it-1} + \varepsilon_{it}$ iv

Where:
TA= Total Accruals;
T = total asset;
a = Constant;
β_1-β_4= parameters;
t-1 = previous year (lag1);
ΔREV = Change in Revenue;
Δ REC = Change in Receivables;
Δ AR= Change in Account Receivable;
PPE = Property, Plant & Equipment;
INTG = Intangible Assets;

INV= Inventory
CL= Current Liabilities;
NCL= Non-current Liabilities;
ACCR= Discretionary Accruals;
t=time;
i = firm;
ε= is the residual
Therefore, the parsimonious model is presented as follows:

$$\mathbf{DCCR_{it} = \beta_0 + \beta_1 BG_{it} + \beta_2 BN_{it} + \beta_3 BR_{it} + \beta_4 BR_{it} + \beta_5 BE_{it} + \beta_6 LEV_{it} + \beta_7 FSZ_{it}\ \varepsilon_{it}} \text{........................(1)}$$

Where**:**
DCCR= discretionary accruals
BGD= Board Gender
BN= Board Nationality
BR= Board Reputation
BRK= Board Risk
BE= Board Expertise
LEV= leverage
FSZ= firm size
β0= Constant
β1- β6= coefficient of the parameters
it= firm and year
Ɛ= error term

Results and Discussion

This presents the descriptive statistics, correlation. It also analyses the results obtained from the regression output and other robustness tests were discusses.

Descriptive Statistics

The descriptive statistics of explanatory and dependent variables of study were analysed. The description of mean, standard deviation, minimum, and maximum of the variables were computed using STATA version13.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
DCCR	130	−0.033	0.338	-1.016	0.977
BD	130	0.281	0.145	0.220	0.667
BN	130	0.321	0.123	0.231	0.401
BR	130	0.240	0.186	0.165	0.414
BRK	130	0.579	0.294	0.375	0.831
BE	130	0.312	0.180	0.200	0.420
LEV	130	0.504	0.220	0.020	0.970
FSZ	130	7.085	1.262	5.873	9.137

Source: STATA OUTPUT version 13

Table 2 reports the descriptive statistics for the both dependent and independent variables respectively (Discretionary accruals, board gender, board nationality, board reputation board risk and board expertise). The results show that the Discretionary accruals (DCCR) of the listed industrial goods firms in Nigeria has average value of -0.033, with standard deviation of 0.338, the minimum and maximum values of -0.001 and 0.977 respectively. Table 2, shows that board gender has a mean value of 28% with a standard deviation of 14.5%, the minimum number of 0.220 and maximum of 0.667. This implies that on average 23% of total members of directors are female in the listed industrial goods firms during the period under review. However, descriptive statistics from Table 2 also shows that a board nationality had a mean value of 32% during the study period. This value indicates that 32% of the total board members are foreign directors of the sampled industrial goods firms.

Moreover, it was observed that the mean value of board reputation is 0.240 with standard deviation of 0.186. The board reputation has a minimum value of 0.165 and maximum values of 0.414 during the study period. Board risk has a mean value of 0.579 with a standard deviation value of 0.294, the minimum and maximum value of 0.375 and 0.831respectively. Finally, board expertise has a mean value of 0.31.2 with standard deviation of 0.180; this signifies that there is no wide dispersion between mean and standard deviation. This imply that on average 31.2% of the total members of directors in the listed industrial goods firms in Nigeria have the knowledge of accounting and finance during period of the study, the minimum and maximum value of 20% and 42% respectively.

4.2. Correlation Matrix

The correlation matrix is used to find out the degree of relationship between dependent variable and independent variables used in the study presented in Table 3.

Table 3: Correlation Matrix

Variable	DAC	BG	BN	BR	BRK	BE	LEV	FSZ
DCCR	1.000							
BG	-0.480	1.000						
BN	0.345	0.283	1.000					
BR	-0.426	-0.379	-0.189	1.000				
BRK	-0.471	0.264	0.331	0.284	1.000			
BE	-0.263	0.417	0.405	0.321	0.262	1.000		
LEV	0.417	-0.321	-0.292	0.283	0.325	0.395	1.000	
FSZ	0.327	0.294	0.325	0.357	0.157	0.424	0.381	1.000

Source: STATA OUTPUT

From the correlation results presented in Table 3 the relationship between discretionary accruals with the independent variables (i.e. board gender, board nationality, board reputation board risk and board expertise) board gender, board reputation, board risk and board expertise are negatively strongly associated with earnings management, while board reputation, leverage and firm size are positively strongly connected with earnings management proxies by discretionary accruals. Also, board gender has a positive and strong association with all other variables except board reputation and leverage which have a negative and strong association with board gender. From Table 3 it was observed that board nationality (BN) has a positive strong association with other explanatory variable with exception of board reputation and leverage, board reputation has negative and weak association with board nationality while leverage has negative strong correlation with board nationality. However, board reputation (BR) had a positive strong relationship with all other explanatory variables. Table 3 also, board risk (BRK) has a positive strong correlation with board expertise and leverage while positive and weak association with firm size. Finally, board expertise (BE) has a positive strong relationship with other variables of the listed industrial goods firms in Nigeria.

Regression Results

This shows the summary of the multiple regression results obtained from the model using ordinary least square regression. The results show individual effect of independent variables (board gender, board nationality, board reputation board risk and board expertise on earnings management) and shows the cumulative impact of independent variables on dependent variable. This is presented in table 4 below.

Table 4. Summary of Regression Result

Variable	Coefficient	T-value	P-value
BG	-0.241	-3.624	0.000
BN	-0.453	-2.902	0.003
BR	0.096	1.561	0.145
BRK	-0.196	-3.193	0.000
BE	-0.223	-3.225	0.000
LEV	0.283	2.760	0.004
FSZ	0.028	3.561	0.000
Constant	-0.178	-3.935	0.000
Adjusted R-sq.	**0.391**		
F- value	**6.81**		
Prob. (F)	**0.000**		
Mean VIF	**3.432**		
Hausman Test	**0.000**		

Source: STATA OUTPUT, Version 13.

From the table above, the results show an overall R square of 0.391 that is the coefficient of determination which represents the proportion of change in earnings management as explained by independent variables. This show that 39% changes in the earnings management is explain by explanatory variables used in the model; this suggests that the explanatory variables cumulatively bring about 39% changes in listed industrial goods firms in Nigeria while 61% is explained by other variables not included for by the model. The F text results show the p-value of 0.000, this denotes that the model is fit and the variables are properly selected. However, robustness test was carried-out in order to ensure the validity of all statistical inferences for the study. These tests include multicollinearity, heteroscedasticity, Normality of residuals. Multicollinearity exists, when there is a perfect correlation between two or more independent variables and where there is a perfect correlation among the independents variables errors may be inflated and the estimates for a regression model cannot be exclusively calculated. Therefore, this study employed Variance Inflation Factor (VIF) to check whether there is present of multicollinearity in this study. The result indicates that the mean VIF is 3.432 which is less than 10 this shows absence of multicollinearity.

Furthermore, heteroscedasticity test was executed to find out whether the disturbances appearing in the population regression function are Homoscedastic (same variance). Breusch-Pagan/Cook-Weiberg test for heteroskedasticity is performed. The result is shows that the value of chi square of 2.16 while its probability is 0.162 which is not significant at 5%. This indicates absence of Heteroskedasticity and shows the present of Homoscedastic. Finally, hausman specification test was conducted to select between fixed and random effect, the results show that the fixed effect is more appropriate than random effect considering Prob>chi2 of 0.0000.

From Table 4 board gender diversity has a negative and significant impact on earnings management of listed industrial goods firms in Nigeria considering the coefficient value of -0.241 with a p value of 0.000 which is significance at 1% level of significance. This suggests an increase in women directors on the board reduces earnings management by 24%. The result in line with mass critical theory which state that certain number of women in a group are required to make a significance difference. The result was not surprise because it was within the researcher expectation that when board is control by a combination of male and female directors the monitoring mechanism tendency of women helps to a greater level in decreasing earnings management. Still, the result may be as a result of the behavior of women towards compliance with organizational rules & regulations and policies. However, the result is in line with reality because women that headed organizations do well in terms of performance and reduce earnings management. The findings in line with findings of Githaiga,et al (2022), Usman and Usman (2022) which found that board gender diversity has a negative and significant impact on earnings management contrary to the findings of Arioglu (2020) and Abdallah and Ismail (2016).

From Table 4 board nationality has a negative and significant impact on earnings management of listed industrial goods firms in Nigeria considering the coefficient value of -0.453 with a p value of 0.000 which is significance at 1% level of significance. This signifies that every increase of one foreign director on the board, the earnings management decrease 45%. The result is in line with the researcher prior expectation that when foreign director(s) is serving on the board helps in curtailing earnings management activities due to his skills, experience and knowledge. The finding is in line with resource dependency theory. It is clear that foreign board members have many resources to share with the companies they are serving such as skill, experience, expertise, connections and many other resources. The findings in line with findings of Usman and Usman (2022), Du et al. (2017) which found that board nationality reduce earnings management activities and contrary to the findings of Almutairi and Quttainah (2020).

From Table 4, board reputation has a positive and insignificant influence on earnings management of listed industrial goods firms in Nigeria considering the coefficient value of 0.096 with a p value of 0.145 which is insignificance at all level of significance. This result is contrary to researcher prior expectation because when members with national honor are serving on the board they serve as monitoring mechanism in decreasing earnings management. The result in line with findings of (Lin, Song & Tiang, 2016) and contrary with the findings of Usman and Usman (2022). Also the result is contrary to efficient contracting theory which state that executive job markets resourcefully offer board members with implicit incentive contracts such as reputation, employment and remuneration (Fama & Jensen, 1983).

Board risk has coefficient figure of -0.196 and t value of 3.193 that is significance at 1% (0.000). This suggests that, it has a powerful positive impact on the earnings management of listed industrial goods firms in Nigeria. This signifies that, the presence of risk management committee decreases earnings management by 20% approximately. However, the finding is in line with prior expectation the study that when a risk management committee is constituted, it complements the effort of board in reducing earnings management. It is also in line with to signaling theory which support that the existence of risk management committee in an organization gives shareholders confidence that the board of directors is sufficient to device upright corporate governance that bring into line the interest of management with that of their interest (Oluyemisi, Che-Ahmed & Muse, 2017). The presence of risk committee on the board is showing that earnings management activities is may be properly checkmate and reduce. The finding is in line with findings of Alhaji, et al. (2018) and contrary to the findings Neffati, et al. (2011).

From Table 4, board expertise has a negative and significant influence on earnings management of listed industrial goods firms in Nigeria considering the coefficient value of -0.223 with a p value of 0.000 which is significance at 1% level of significance. This imply that every increase of director with the knowledge of accounting and finance on the board, the earnings management decrease 22%. The result is in line with the researcher prior expectation that when director(s) serving the board with financial and accounting knowledge are familiar with the financial reporting framework and have a deeper understanding of the preparation and interpretation of financial reports, thus reduce earnings manipulation. The result is in line with Upper Echelon theory that the level of education of the senior management can influence the strategic choice decisions of the managers and therefore reduce earnings management. However, the results in line with the findings of Alzoubi (2018) and Githaiga,et al (2022) and contrary to the findings of Metawee (2013). The result is in line with the reality that board members with the knowledge of accounting and finance are in better position to explain and advise other board members and this reduce earnings management manipulation.

Conclusion and Recommendations

This study has empirically provided evidence on the relationship between board dynamics proxies by board gender, board nationality, board reputation, and board risk and board expertise to represent board dynamics and discretionary accruals as a proxy of earnings management. Based on statistical evidence, it is therefore concluded that board gender, board nationality, board risk and board expertise reduce earnings management activities during period der review. However, it’s also concluded that board reputation does not have impact on earnings management of listed industrial goods firms in Nigeria during the period under review.

In line with findings and conclusions drawn from the study, therefore, this recommends that;

The management of listed industrial goods companies in Nigeria should increase the presence of women directors on boards. The portion of female members on board should be 30% as proposed by the critical mass theory and that of male members should be 70% as this will help gender balance on the board as advocated by sustainable development goals. The existence of more females on board will greatly assist in mitigating earnings management because of their monitoring mechanism and adherence to laid down rules and regulations

Board nationality reduces the level of earnings management of listed industrial goods companies in Nigeria. Therefore, the listed companies of Nigeria should allocate at least 30% of their board membership to foreign directors especially those from developed countries because foreign directors have proven to possess the ability of reducing earnings management through their connections, expertise, knowledge, experience, skills, and monitoring power.

Board risk decreases the degree of earnings management of listed industrial goods companies in Nigeria based on the statistical result of this study. Therefore, the boards should ensure that to establish sound risk management committees in their companies as this reduce earnings management.

Board reputation does not have any impact on earnings management of listed industrial goods companies in Nigeria based on the statistical result of this study. Therefore, the members of board of directors with national honor should use their status to attract investors that would be benefits to the firm and not to reduce earnings management activities.

The management of listed industrial goods companies in Nigeria should ensure that more member with the knowledge of accounting and finance on the board as this reduce earnings management through their, expertise, knowledge, experience and skills.

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