FUDMA JOURNAL OF ACCOUNTING AND FINANCE RESEARCH [FUJAFR]
VOLUME 1, ISSUE 3; ISSN: 2992-4693 (ONLINE); 2992-2704 (PRINT)

Corporate Governance Characteristics and Earnings Management of Quoted Non-Financial Firms in Nigeria

Lawrence Egbadju

Department of Accounting, Federal University Otuoke, Bayelsa State, Nigeria
Correspondence Email : lawuvie@gmail.com

https://doi.org/10.33003/fujafr-2023.v1i3.65.100-114

Abstract

This study investigates the relationship between some corporate governance attributes and earnings management of listed firms in Nigeria. This study uses the correlational research design and purposively sampled secondarily sourced data over the period from 2005 to 2020 of 75 non-financial firms listed on the floor of the Nigerian Exchange Group (NXG). The Robust Least Squares Estimators results reveal that board independence (BODI) is positively significant with earnings management; board size (BODS board gender diversity (BGDIV) and audit committee size (ACS) are negatively significant with it while managerial ownership (MOWN); chief executive officer with military experience (CEOME) and number of foreign directors (NFODIR) are insignificant. While foreign income (FINCOME), year fixed effects (YDUM) and industry fixed effects (IDUM) dummies are negatively and statistically significant, the Big4 auditors is positively insignificant. The study concludes with some recommendations that management, among others, should maintain or increase the present level of board size, audit committee size and the number of females in the board since these variables deter management in managing earnings for the period under review.

Keywords: Corporate Governance, Earnings Management, Foreign income, Non-Financial Firms, Nigeria.

1.0 Introduction

Financial statements are anticipated to be a veritable source of pertinent information especially for parties who rely heavily on them to make wise business decisions. Therefore, it is crucial that these reports give actual and potential investors accurate accounting statistics. Since maximizing wealth is investors' primary goal, the accuracy of financial reporting will undoubtedly have a significant impact on the decisions these investors make, like accurately projecting future cash flows. According to Umaru (2014), inaccurate financial reporting causes investors to make poor business decisions because it gives management incentives to manipulate earnings to their advantage or to satisfy investors' expectations. The phrase used to explain how managers manipulate earnings is called earnings management. That is, earnings management is the process of influencing a company's fundamental accounting performance. This is possible because managers are allowed limited discretion on how they can present accounting data when using Generally Accepted Accounting Principles (GAAP). Managers can report a specific transaction using a variety of accounting procedures with respect to items like depreciation, inventory valuation, account receivable, among others.

Thus, when managers engage in activities like "smoothing out" or maintaining a growing trend in order to fulfill targets, satisfying analyst expectations, or preventing losses, they are engaging in earnings management (Healy & Wahlen, 1999). Again, Healy and Whalen (1999) noted that "earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the company's underlying economic performance or to influence contractual outcomes that depend on reported accounting numbers." Similarly, earnings management refers to managers' dishonest activity in which they actively alter

financial statements by applying discretion in transaction structure to either deceive the company's stakeholders about its genuine financial condition or to increase their own personal wealth.

The ethical wrongdoings of Enron (2001), WorldCom (2002), Tyco (2002), HealthSouth (2003), Freddie Mac (2003), Parmalat (2003), American International Group (AIG) (2005), Lehman Brothers (2008), Bernie Madoff (2008), Satyam (2009), Olympus (2011), and Tesco (2014), to name a few (Egbadju & Kunemoemi, 2019), can be traced to opportunistic practices of earnings management practices beginning from the early 2000s to the present day. Nigeria has also had its own share of corporate failure such as Intercontinental Bank, Oceanic Bank, Vodafone, NITEL, to mention but a few, due to corporate governance (CG) problem which now led researchers to focus on the subject matter (Ozili, 2021). He further identified factors from the extant literature militating against CG enforcement in Nigeria such as: conflicting codes, weak compliance by directors who are ready to bribe their way out, government lack of political will to enforce CG codes, blatant and arrogant disrespect by politically connected, weak enforcement by bribe-prone regulators.

Through the process of corporate governance, stakeholders hold management of the company accountable for their stewardship in preventing corporate excesses by making sure that the company manages its resources in a lucrative, long-term manner that promotes integrity and progress (Korolo (2023). Again, the methods that allow stakeholders to exercise control over management for the optimal result, while also promoting ethical ideals and entrepreneurial and strategic leadership, are essentially what make up the Board of Directors' effective oversight role of corporate governance (Razaq, 2023).

Several studies that have linked corporate governance with earnings management practices found strong relationship between them. For examples, Gadhoum (2021) observed that studies that look at the function of the board of directors, audit committee, and institutional shareholdings have found evidence that these entities lessen opportunistic earnings management. Hong et al (2023); Usaini and Hooy (2023); Mensah and Boachie (2023), to mention but a few found conflicting results between corporate governance attributes and earnings management. For as much as the results from previous studies have shown mixed outcomes, the main objective of this study is to investigate the impact which some corporate governance characteristics may have on the practices of earnings management in the financial statements of quoted non-financial firms in Nigeria. This study differs in several ways because we introduce some new variables, over longer periods for more sample size. This study introduces two new corporate governance attributes- chief executive officer (CEO) with military experience and foreign directorship as well as foreign income as a new control variable which none to the best of my knowledge has used. It also covers a longer time period (2005 to 2020) than the other studies. With respect to the number of firms, it uses more firms (75). Following this introduction, the rest of the paper is divided into five sections with the literature review in section two, methodology in section three, discuss of results in section four and the fifth section concludes this paper.

2.0 Literature Review and Hypotheses Development

Agency Theory and Earnings Management

The agency problem resulting from the separation of ownership and control, which creates asymmetries in interests between managers and shareholders, should be taken into consideration while debating the influence of governance structures on earnings management (Jensen & Meckling, 1979). When managers do not own the business, self-interest influences their actions, delaying their attempts to maximize the value of the company and, by extension, the interests of owners or shareholders (Fama & Jensen, 1983). As a result, agency theory contends that a division of ownership and control causes manager and owner

interests to diverge. There are often conflicts of interest between the agents (managers) and the principles (shareholders). Because it is assumed that managers will not behave in the shareholders' best interest, the agency problem becomes more apparent for both managers and shareholders. Thus, monitoring management decisions is essential to ensuring that the interests of shareholders are protected (Fama & Jensen, 1983). By keeping ownership and control separate, the main concern in this regard is discouraging management from acting in an opportunistic manner that could diminish the company's value. In this context, the corporate governance literature emphasizes the strategies that protect investors' interests (Naz et al., 2023).

Empirical Literature

Hong et al (2023) carried out a study to determine the relationship between corporate governance and earnings management in Vietnam. The researchers used annually sourced panel data collected over the period from 2010 to 2020 on 488 firms quoted on the floor of the Vietnamese Stock Exchange. The OLS regression results showed that corporate governance index (CGI) was positively significant with earnings management. That is, CGI helps to mitigate managers' desires to engage in their tendencies to manipulate earnings. Usaini and Hooy (2023) studied whether there is any relationship between corporate governance and earnings management in Nigeria. The researchers used annually sourced panel data collected over the period from 2010 to 2019 on 37 financial firms quoted on the floor of the Nigerian Exchange Group (NXG). The results of the OLS regression revealed that board size positively and significantly influenced earnings management; audit committee and CEO duality negatively and significantly impacted it while board independence was insignificant.

Mensah and Boachie (2023) researched on the extent to which corporate governance have affected earnings management of firms in sub-Saharan African countries. Secondary data collected from annual reports of 52 quoted companies quoted on the floor of nine Stock Exchange over the period from 2007 to2019 was used. The OLS regression results showed that while gender diversity and board meetings negatively and significantly influenced earnings management; board size and board independence are insignificant. Naz et al. (2023) carried out research to determine the effect of corporate governance on real and accrual earnings management in Pakistan. The study used annual secondary panel data obtained from 172 quoted firms on the Pakistan Stock Exchange (PSX) covering the period 2012 to 2019. The generalized method of moments (GMM) regression model results indicated that while board size had a positive and statistical impact on earnings management; board independence was negatively insignificant with it. Igbai et al. (2022) tested, in empirical research, the impact which corporate governance has had on the eradication of earnings management practices in Malaysia. The study made use of sampled data set staring from 2008 to 2019 making a total of 1,815 firm-year observations. The results of the ordinary least squares (OLS) showed that while board independence (BI) positively and significantly influenced modified Jones model of earnings management; board size, managerial ownership, board meeting and CEO duality negatively and significantly influenced it. This means that while the board size could not lessen management tendencies to engage in the management of earnings, managerial ownership, board meeting and CEO duality were able to do so. Pham et al. (2022) carried out research on the extent to which corporate governance has impacted earnings management in Vietnam. Annual secondary panel data which covered the period 2015 to 2019 collected from the financial reports of 658 Vietnamese firms was used. The OLS regression results indicated that board size and foreign ownership were negatively and statistically significant with earnings management; while board independence, managerial ownership and state ownership were insignificant.

Hassan et al. (2022) embarked on this research to investigate the effect which corporate governance has had on earnings management in Palestine. Secondary data collected from annual reports of 35 quoted companies quoted on the floor of the Palestine Exchange over the period starting from 2012 to 2019 was used. The OLS regression results showed that all the variables of interest (audit committee, board meetings, board size, ownership concentration, foreign ownership and institutional ownership) were statistically insignificant with earnings management meaning none could help in curbing management for the period under review. Aryal and Dhesi (2022), in this research, investigated the effect which corporate governance and has had on earnings management in the United Kingdom (UK). Secondarily sourced panel data over the period from 2013 to 2019 based on the FTSE350 firms of the UK was used. The OLS regression results showed that board independence and board gender diversity were negatively significant with earnings management; block holders' leadership and non-executive directors' fees were positively significant but board size and board meetings were insignificant. Al-Zaqeba et al. (2022) attempted an empirical examination of how corporate governance and earnings management in Malaysia. Annual secondary panel data over the period from 2010 to 2019 obtained on 289 Malaysian manufacturing firms quoted on the Bursa Malaysian was used. The OLS results showed that while board independence and board size positively and significantly impacted earnings management; audit committee size, audit committee independence, managerial ownership and family ownership negatively and significantly impacted earnings management while the Big4 and auditors' change/rotation did not impact it at all.

Vernanda and Khusnul (2021) attempted an empirical study of how corporate governance enhanced the practices of earnings management in Indonesia. The study used secondary panel data over the period from 2016 to 2018 obtained from 119 companies indexed by LQ-45 making a total of 357 firm-year observations. The OLS regression results indicated that while audit committee expertise was negatively significant with earnings management and therefore mitigate it, board size, board independence and audit committee size were insignificant. Kjærland et al. (2020) empirically tested whether corporate governance has affected accounting conservatism in Norway. The study used secondary panel data over the period from 2014 to 2017 obtained from 16 banks quoted on the Oslo Stock Exchange making a total firm-years observation of 64. The OLS regression results indicated that there was a negative and significant relationship between audit committee size as well as employee representation and earnings management while board independence was insignificant.

The study, therefore, hypothesizes that:

H_1: There is no significant relationship between board size and earnings management earnings management of quoted non-financial firms in Nigeria.

H_2: There is no significant relationship between board independence and earnings management of quoted non-financial firms in Nigeria.

H_3: There is no significant relationship between board gender diversity and earnings management of quoted non-financial firms in Nigeria.

H_4: There is no significant relationship between managerial ownership and earnings management of quoted non-financial firms in Nigeria.

H_5: There is no significant relationship between chief executive officer (CEO) military experience and earnings management of quoted non-financial firms in Nigeria.

H_6: There is no significant relationship between number of foreign directors and earnings management of quoted non-financial firms in Nigeria.

H_7: There is no significant relationship between audit committee size and earnings management of quoted non-financial firms in Nigeria.

3.0 Methodology

Using the ex-post facto research design, often referred to as the descriptive or correlational research design, the study investigates if there is any relationship between corporate governance and earnings management of enterprises in Nigeria. In order to conduct this study, a purposive sample of secondary data from 75 out of a population of 106 non-financial firms' annual reports over a period of sixteen (16) years, from 2005 to 2020, totaling 1200 observations was used.

Table 1: Measurement and Definitions of Variables

Variables Names	Definitions	Variable Types	Measurements	Authorities
DACC	Discretionary Accruals	Dependent	See Section 3.2.1*	Naz et al. (2023)
DACC (-1)	One year lag of DACC	Instrumental	Preceding or Last year DACC	Naz et al. (2023)
BODS	Board size	Independent	Total number of directors on the board	Mensah and Boachie (2023); Naz et al. (2023)
BODI	Board independence	Independent	Percentage (%) of independent or outside directors on the board	Usaini and Hooy (2023); Al-Zaqeba et al. (2022)
BODIV	Board gender diversity	Independent	A board that has at least one female on it. It takes the value '1' if a female is there, otherwise '0'	Mensah and Boachie (2023); Aryal and Dhesi (2022)
MOWN	Managerial ownership	Independent	Proportion (%) of shares own by managers	Al-Zaqeba et al. (2022); Pham et al. (2022)
CEOME	Chief Executive Officer (CEO) Military Experience	Independent	A dummy variable which equals '1' if the board has a CEO who was a former Army, Navy or Airforce officer, otherwise '0'	None used it of the literature reviewed in this study
NFODIR	Foreign Ownership	Independent	Proportion (%) of directors who are foreigners	None used it of the literature reviewed in this study
ACS	Audit Committee Size	Independent	Total number of persons in audit committee	Usaini and Hooy (2023); Al-Zaqeba et al. (2022)
BIG4	The four biggest audit firms in the world (Deloitte & Touche; PwC; Ernst & Young; KPMG)	Control	A dummy variable which takes the value '1' if audited by one of the big4 auditors, otherwise '0'	-
FINCOME	Foreign Income	Control	Income earned outside the shores of Nigeria	None used it of the literature reviewed in this study
YDUM	Year Fixed Effect Dummy	Control	A dummy variable which takes the value '1' for each year	-
IDUM	Industry Sector Fixed Effect Dummy	Control	A dummy variable which takes the value '1' for each industry	-

Source: Researcher's Compilations from the Extant Literature (2023).

Derivation of the Dependent Variable (Discretionary Accruals)

Earning management is measured from the perspective of discretionary accrual. According to Lee and Vetter (2015), earnings management models have passed through major changes since Jones (1991); Dechow et al. (1995); Kang and Sivaramakrishnan (1995); Kasznix (1999); Dechow and Dichev (2002);

Kothari et al. (2005); to mention but a few beginning with Healy (1985) and DeAngelo (1986). This study uses the Key 1997 Model which is written as:

$$\frac{TACCit}{TAit-1} = \alpha 1 \frac{1}{+\,\mathrm{TAit}-1} + \alpha 2 \frac{\Delta REVit}{\mathrm{TAit}-1} + \alpha 3 \frac{PPEit}{\mathrm{TAit}-1} + \alpha 4 \frac{IAit}{\mathrm{TAit}-1} + \varepsilon \mathrm{it}$$

Step by Step Derivation of the Dependent Variable (Discretionary Accruals)
The following steps are taken into considerations in order to calculate the discretionary accruals used for earnings management using Key's 1997 Model.

Step1. Calculate the total accruals as follows:

$TACC_{it}/TA_{t-1} = (\Delta CA_{it} - \Delta Cash_{it} - \Delta CL_{it} + \Delta DCL_{it} - DEP_t) / TA_{t-1}$…….. (Eq1)

Where: $TACC_{it}$ = Total accruals for firm i in year t
ΔCA_{it} = Change in current assets for firm i in year t
$\Delta Cash_{it}$ = Change in cash and cash equivalent for firm i in year t
ΔCL_{it} = Change in current liabilities for firm i in year t
ΔDCL_{it} = Change in short term debt included in current liabilities for firm i in year t
DEP_{it} = Depreciation and amortization for firm i in year t
TA_{it-1} = Total assets for firm i in year t-1, that is, lag of one year.

Step2. Estimate the Jones model in equation2 below using the Ordinary Least Squares (OLS) regression technique:

$$\frac{TACCit}{TAit-1} = \alpha 1 \frac{1}{+\,\mathrm{TAit}-1} + \alpha 2 \frac{\Delta REVit}{\mathrm{TAit}-1} + \alpha 3 \frac{PPEit}{\mathrm{TAit}-1} + \alpha 4 \frac{IAit}{\mathrm{TAit}-1} + \varepsilon \mathrm{it} \quad \text{…… (Eq2)}$$

where: $TACC_{it}/TA_{t-1}$ = Total accruals for firm i in year t scaled/divided by total assets for firm i in year t-1

TA_{t-1} = Total assets for firm i in year t-1
ΔRev_{it}= Change in revenues for firm i in year t
PPE_{it} = Gross property plant and equipment for firm i in year t.
IA_{it} = Gross intangible assets for firm i in year t.
α_1, α_2 and α_3 = Parameters or coefficients to be estimated to derive $\hat{a}_1$ $\hat{a}_2$ $\hat{a}_3$, the estimated parameters
$\boldsymbol{\varepsilon_{it}}$ = Residuals or error terms for firm i in year t

Step 3. Thereafter, we shall calculate the non-discretionary accruals (NDACC) by replacing α_1, α_2 and α_3 with $\hat{a}_1$ $\hat{a}_2$ $\hat{a}_3$ in equations 2 above without $\boldsymbol{\varepsilon_{it}}$, the error terms as:

$$\frac{TACCit}{TAit-1} = \hat{a}1 \frac{1}{+\,\mathrm{TAit}-1} + \hat{a}2 \frac{\Delta REVit}{\mathrm{TAit}-1} + \hat{a}3 \frac{PPEit}{\mathrm{TAit}-1} + \hat{a}4 \frac{IAit}{\mathrm{TAit}-1}$$

where: $NDACC_{it}/TA_{t-1}$ = non-discretionary accruals for firm i in year t scaled/divided by total assets for firm i in year t-1.

Step4. Finally, we shall calculate the discretionary accruals as total accruals less non-discretionary accruals:

$DACC_{it}/TA_{t-1} = TACCit/TA_{t-1} - NDACC_{it}/TA_{t-1}$ ……. (Eq3)

This discretionary accrual (DACC) is used as the proxy for Earnings Management.

Model Specification

The functional equation of earnings management represented by the discretionary accruals of KEY 1997 model to test the seven (7) hypotheses specified is stated as in equation 1:

DACC = f (BODS, BODI, BODIV, MOWN, CEOME, NFODIR, ACS) ……...……...…… (Eq1)

Description of the Robust Least Squares Regression Estimation Technique Used.
This study uses the dynamic Robust Least Squares Regression Estimator which combines the use of lagged dependent variable in a robust least squares regression environment. A robust least squares regression or simply, a robust regression is a regression technique designed to be robust or reliable in handling a situation where the ordinary least squares (OLS) regression fails due to the violation of one of the OLS assumptions. For example, the OLS method is BLUE (Best, Linear, Unbiased Estimator), but where there are outliers and a departure from normality; it is no longer BLUE since it is not robust to deal with any departure from normality assumption of the error term (Ismail et al., 2021). For as much as the conventional regression methods are sensitive to observation outside the norm, the estimation coefficients can result in inaccurate underlying statistical relationship (Croux et al., n. d.). Thus, robust regression stands as an alternative. If a regression estimator can still reliable in the presence of outliers and its standard error consistent when the regression errors have outliers, autocorrelation and heteroskedasticity, then it is adjudged to be robust (Ismail et al., 2021).

The use of lagged dependent variable is, first, to eliminate autocorrelation in the residuals and, secondly, to capture the dynamism in panel data by controlling for endogeneity bias. By including the lagged value of the dependent variable, that is, $DACC_{it-1}$, due to unobserved heterogeneity transforms the static model to a dynamic one.

$DACC_{it} = \beta o + \beta_1 DACC_{it-1} + \beta_2 BODS_{it} + \beta_3 BODI_{it} + \beta_4 BODIV_{it} + \beta_5 MOWN_{it} + \beta_6 CEOME_{it} + \beta_7 NFODIR_{it} + \beta_8 ACS_{it} + \beta_9 BIG4_{it}\ \beta_{10} FINCOME_{it} + \beta_{11} YDUM_{it}\ \beta_{12} IDUM_{it} + \varepsilon_{it}$ …… (Eq2)

Where the definitions are as stated in Table 1 above.

β_1, β_2, β_3, β_4, β_5, β_6, β_7, β_8, β_9, β_{10}, β_{11} and β_{12} are the beta coefficients of the independent variables, the controls as well as the year and industry fixed effect. From this study, it is expected that β1 to β12 should be greater than zero. ε_{it} = Error term.

4.0 Results and Discussion

Data collected are analyzed using EViews 13 Software in the following order: descriptive statistics, correlation analysis, panel unit root test, estimation of the regression models and finally we performed some diagnostics tests.

Table 2: Univariate Data Analyses (Descriptive Statistics)

	BODS	BODI	BGDIV	MOWN	CEOME	NFODIR	ACS	BIG4	FINCOME	YDUM	IDUM
Mean	8.67	6.29	0.97	1.11	0.12	1.52	8.14	0.33	215.	8.57	4.29
Median	8.50	6.00	1.00	0.05	0.00	0.00	9.00	0.00	0.00	9.00	4.00
Maximum	17.00	16.00	5.00	502	4.00	8.00	9.00	1.00	5.78	16.00	9.00
Minimum	3.00	1.00	0.00	0.00	0.00	0.00	5.00	0.00	-2632.	1.00	0.00
Std. Dev.	2.42	2.32	1.04	16.37	0.52	2.00	1.35	0.47	3004	4.59	2.71
Skewness	0.52	0.95	1.21	26.32	6.05	1.19	-0.94	0.69	15.96	-0.03	0.11
Kurtosis	3.21	4.27	4.51	778.15	43.39	3.38	1.91	1.48	264.	1.79	1.72
Jarque-Bera	53.99	251.	390	2871	8460	276	227	201	3299.	68.66	79.99
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum	9911	7184.	1109	1266	135.	1742	9297	383.	2.46	9789	4904.
Sum Sq. Dev.	6689.	6151	1246	3057	3112.	4564.	2096	2548	1.04	2403	8377.
Observations	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

Source: Researcher's Computations (2023) Using EViews13 Software.

The statistics in Table 2 show the mean and the maximum values of the variables: BODS, BODI, BGDIV, MOWN, CEOME, NFODIR, ACS, BIG4, FINCOME, YDUM and IDUM. A closer look shows that the maximum values are all greater than the mean values. Since the mean values are lower than the maximum values, it confirms that there are no outliers in our data.

Bivariate Data Analysis (Correlation Analysis)

Table 3: Covariance Analysis

Covariance Correlation	BODS	BODI	BGDIV	MOWN	CEOME	NFODIR	ACS	BIG4	FINCOME	YDUM	IDUM
BODS	5.85										
	1.00										
BODI	4.49	5.38									
	0.80	1.00									
BGDIV	0.92	0.46	1.09								
	0.36	0.19	1.00								
MOWN	-1.35	-0.85	0.10	267.							
	-0.03	-0.02	0.01	1.00							
CEOME	-0.05	-0.04	-0.01	-0.09	0.27						
	-0.04	-0.03	-0.03	-0.01	1.00						
NFODIR	2.13	1.83	0.23	-1.40	-0.15	3.99					
	0.44	0.39	0.11	-0.04	-0.14	1.00					
ACS	1.10	0.71	0.20	0.71	-0.11	0.86	1.84				
	0.34	0.29	0.14	0.03	-0.15	0.32	1.00				
BIG4	-0.06	-0.22	0.11	-0.27	-0.04	-0.05	0.16	0.22			
	-0.06	-0.20	0.23	-0.04	-0.15	-0.05	0.25	1.00			
FINCOME	-2016.	-4183.	1625.	-1158.	1686.	-2749.	-3973.	-5360.	9.02		
	-0.03	-0.06	0.01	-0.00	0.11	-0.05	-0.09	-0.04	1.00		
YDUM	0.12	-0.94	1.38	-5.03	-0.07	0.28	0.19	0.18	110	21.05	
	0.01	-0.09	0.29	-0.07	-0.03	0.03	0.03	0.08	0.08	1.00	
IDUM	0.69	0.57	0.13	-2.01	0.16	0.99	0.73	0.06	1292.	0.21	7.34
	0.11	0.09	0.05	-0.04	0.11	0.18	0.19	0.05	0.016	0.02	1.00

Source: Researcher's Computations (2023) Using EViews13 Software.

The correlation analyses among the variables are meant to first determine the association between each pair of the dependent and independent variables as well as among the explanatory variables. The degree of association may be weak (0.00 to 0.5), moderate (0.51 to 0.8) or high (0.81 and above). A very high association among the regressors poses a problem of multi-collinearity (Gujarati, 2003). From Table 3 above, BODI has a positively high association with BODS at 0.80. All other associations are weak and this attest to the fact that there is no problem of multicollinearity among the variables.

Panel Unit Root Test

Pre-testing for stationarity of the variables is very compulsory or a necessary condition for data analysis. It is a sort of flowchart that guides us in selecting the appropriate model to be used in running our regression analysis. This is ascertained from the unit roots results for an I (0) variable, an I (1) variable or even to detect the inclusion of an I (2) variable which may turn out to be an exercise in futility when it is later discovered that an I (2) variable is included (Nkoro & Uko, 2016). Real exchange rates and other underlying fundamentals are most widely acknowledged as non-stationary variables and so, must be modeled using a suitable econometric framework (unit roots test, cointegration test and long-run estimation) so that conclusion is not based on spurious results (Maeso-Fernandez et al., 2004).

Table 4: Unit Root Test

Variables	Levin, Lin & Chu t*	Hadri	Im, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square	Decision
DACC	5.0(1.0000)	6.6(0.0000)	-0.854 (0.1964)	42.7 (0.0370)	114.1 (2.2558)	I(0) stationary
BODS	-3.6(0.0001)	6.6(0.0000)	-0.54(0.2927)	30.1 (0.2652)	19.6 (0.8075)	I(0) stationary
BODI	-1.9(0.0265)	5.8(0.0000)	0.31(0.6244)	24.4 (0.5481)	18.1(0.8719)	I(0) stationary
BODIV	-2.9 (0.0015)	3.6(0.0000)	-0.43(0.3300)	18.0(0.4506)	10.3(0.9195)	I(0) stationary
MOWN	-3.3(0.0004)	24.7(0.0000)	0.05(0.5237)	30.7(0.3291)	39.2(0.0763)	I(0) stationary
CEOME	-	28.8(0.0000)	-	-	-	I(0) stationary
NFODIR	-4.1(1.3598)	4.7(0.0000)	-2.2913 (0.0109)	31.0(0.0131)	31.4(0.0116)	I(0) stationary
ACS	1.3(0.9139)	(0.0000)	-0.38(0.3492)	2.4(0.2958)	6.0(0.0481)	I(0) stationary
BIG4	-1.45(0.0725)	9.65(0.0000)	0.67(0.7506)	44.61(0.9311)	31.71(0.9963)	I(0) stationary
FINCOME	-151.1(0.0000)	2.31(0.0104)	-47.3(0.0000)	77.6(0.0024)	77.6(0.0024)	I(0) stationary
YDUM	2.57(0.9950)	8.47(0.0000)	3.90(1.0000)	28.8(1.0000)	28.6(1.0000)	I(0) stationary
IDUM	1.27(0.8987)	3.02 (0.0012)	1.41(0.9214)	3.75(0.9874)	3.7(0.9874)	I(0) stationary

Source: Researcher's Computations (2023) Using EViews13 Software.

Since at least one test statistic of the above panel unit roots tests indicated that all the variables are 1 (0), that is, stationary at levels, we settle for an I (0) in our final decision as shown in Table 4 above. Thus, the ordinary least squares regression method can be used to run the analysis.

Regression Models Estimation Results and Hypotheses Testing

Table 5: Regression Results (Dependent Variable: DACC)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
DACC (-1)	1.15E+12	8.52E+10	13.51247	0.0000
BODS	-7.27E+10	1.55E+10	-4.691531	0.0000
BODI	5.90E+10	1.63E+10	3.612217	0.0003
BGDIV	-1.95E+11	2.85E+10	-6.852171	0.0000
MOWN	-2.60E+10	5.93E+10	-0.438602	0.6609
CEOME	-9.02E+10	1.50E+11	-0.600868	0.5479
NFODIR	1.31E+10	1.13E+10	1.164677	0.2441
ACS	-1.11E+11	1.95E+10	-5.678604	0.0000
BIG4	4.60E+10	4.49E+10	1.025388	0.3052
FINCOME	-128360.0	9207.417	-13.94094	0.0000
IDUM	-1.04E+11	2.52E+10	-4.146849	0.0000
YDUM	-2.82E+10	4.78E+09	-5.901207	0.0000
C	1.23E+12	1.63E+11	7.531033	0.0000
	Robust Statistics			
R-squared	0.346212	Adjusted R-squared		0.306787
Rw-squared	0.802322	Adjust Rw-squared		0.802322
Akaike info criterion	306.1967	Schwarz criterion		359.2499
Deviance	2.27E+25	Scale		2.80E+11
Rn-squared statistic	848.4047	Prob (Rn-squared stat.)		0.000000
	Non-robust Statistics			
Mean dependent var	-1.45E+12	S.D. dependent var		5.70E+12
S.E. of regression	5.98E+12	Sum squared resid		7.12E+27

Source: Researcher's Computations (2023) Using EViews13 Software.

Discussion of the Regression Results

Table 5 above shows the regression estimation results of the relationship between corporate governance characteristics (BODS, BODI, BODIV, MOWN, CEOME, NFODIR, ACS) as well as some control variables (BIG4, FINCOME) with fixed effect variables (IDUM, YDUM) and accounting conservatism of the 76 sampled non-financial firms. From the same Table 5 above, the coefficient (1.15E+12) of DACC (-1) is positively significant (p= 0.0000) at the 1% levels of significance. This result is in line with the extant literature that the dependent variable and its lag move in the same direction and must be significant (Egbadju & Jacob, 2022). This means that the current year earnings management strategies can be directly affected by previous period(s) strategies in the light of new information we were not aware of.

The Rw^2 and the Adj Rw^2 = 0.802322 which means that about 80.23% of systematic variations in earnings management represented by DACC model is accounted for by BODS, BODI, BGDIV, MOWN, CEOME, NFODIR, ACS, BIG 4, FINCOME, IDUM and YDUM. The remaining 19.77% can be explained by other factors not captured by our model. The Rn-squared statistic (848.4047) and a Prob (Rn-squared stat.) of 0.0000 confirm that there is a joint statistically significant of a linear relationship between the variables

(dependent and independent). Looking at the independent variables (BODS, BODI, MOWN, CEOME, NFODIR, ACS) reveal that while (BODS, BODI, ACS) are statistically significant with DACC at the 1% level; (MOWN, CEOME, NFODIR) are statistically insignificant.

In particular, BODS relationship with DACC is negatively significant with a coefficient of -7.27E+10, a t-Statistic of -4.691531 and a p-value of 0.0000. at the 1% levels of significance. This suggests that an increase in BODS will decrease DACC. That is, the more members are added to the board, the more managers are likely not to engage in managing earnings. The sign or direction as well as the size or magnitudes are in line with our expectations. The study, therefore, rejects the null hypothesis of no significant effect and accept the alternative hypothesis that there is a significant effect between board size and earnings management. This result is in line with that of Igbai et al. (2022) and Pham et al. (2022) but contradicts those of Usaini and Hooy (2023); Mensah and Boachie (2023) and Naz et al. (2023).

BODI relationship with DACC is positively significant with a coefficient of 5.90E+10, a t-Statistic of 3.612217 and a p-value of 0.0003 at the 1% levels of significance. This suggests that an increase in the number of outside directors will increase DACC. That is, the more the outside directors, the more management tend to engage in managing of earnings. The sign or direction is not in line with the study expectations but the size or a magnitude is in line with it. The study, therefore, rejects the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant effect between BODI and earnings management. This result is in line with those of Igbai et al. (2022) and Al-Zaqeba et al. (2022) but contradicts those of. Usaini and Hooy (2023); Mensah and Boachie (2023) and Naz et al. (2023)

BODIV relationship with DACC is negatively significant with a coefficient of -1.95E+11, a t-Statistic of -6.852171 and a p-value of 0.0000 at the 1% levels of significance. This suggests that an increase in BODIV will decrease DACC. That is, the more female members are added to the board, the more managers are likely not to engage in managing earnings. The sign or direction as well as the size or magnitudes are in line with the study expectations. The study, therefore, reject the null hypothesis of no significant effect and accept the alternative hypothesis that there is a significant effect between board size and earnings management. This result is in line with those of Mensah and Boachie (2023) and Aryal and Dhesi (2022) but contradicts no study.

ACS relationship with DACC is negatively significant with a coefficient of -1.11E+11, a t-Statistic of -5.678604 and a p-value of 0.0000 at the 1% levels of significance. This suggests that an increase in ACS will decrease DACC. That is, the more audit committee members are added to the audit committee, the more managers are likely not to engage in managing earnings. The sign or direction as well as the size or magnitudes are in line with the study expectations. The study, therefore, rejects the null hypothesis of no significant effect and accept the alternative hypothesis that there is a significant effect between board size and earnings management. This result is in line with those of Usaini and Hooy (2023); Al-Zaqeba et al. (2022) and Kjærland et al. (2020) but contradicts that of Vernanda and Khusnul (2021). However, while MOWN and CEOME are negatively insignificant, NFODIR is positively insignificant with DACC. For the control variables, while the Big4 is positively insignificant; FINCOME is negatively insignificant. Both the year and industry fixed effects dummies are statistically significant.

Additional Tests of Robustness Comparing three Models (Equations6, 7 and 8)

Table 5

Corporate Governance Characteristics including Control Variables alone:			Corporate Governance Characteristics including Year and Industry Variables alone:			Corporate Governance Characteristics excluding Control, Year and Industry Variables:		
VARIABLES	t-Stats	p-Values	VARIABLES	t-Stats	p-Values	VARIABLES	t-Stats	p-Values
DACC(-1)	13.51	0.0000	DACC (-1)	14.47	0.0000	DACC (-1)	12.84	0.0000
BODS	-4.69	0.0000	BODS	-5.58	0.0000	BODS	-4.38	0.0000
BODI	3.61	0.0003	BODI	3.78	0.0002	BODI	4.66	0.0000
BGDIV	-6.85	0.0000	BGDIV	-6.40	0.0000	BGDIV	-6.05	0.0000
MOWN	-0.44	0.6609	MOWN	-0.35	0.7240	MOWN	0.37	0.7051
CEOME	-0.60	0.5479	CEOME	-0.70	0.4826	CEOME	0.87	0.3818
NFODIR	1.16	0.2441	NFODIR	1.84	0.0653	NFODIR	1.86	0.0635
ACS	-5.67	0.0000	ACS	-6.16	0.0000	ACS	-4.79	0.0000
BIG4	1.02	0.3052	IDUM	-4.04	0.0001	-		
FINCOME	-13.94	0.0000	YDUM	-6.12	0.0000	-		

Source: Researcher's Computations (2023) Using EViews13 Software.

Model 1 includes the control variables but excludes both the industry fixed effect and year fixed effect dummy variables.

Model 2 includes both the industry fixed effect and year fixed effect dummy variables but excludes the control variables.

Model 3 excludes the control variables as well as both the industry fixed effect and year fixed effect dummy variables

Where the three scenarios were taken into considerations, the regression results in Table 5 below did not significantly differ from that of Table 4 above which includes the control variables as well as both the industry fixed effect and year fixed effect dummy variables except model 2 and model 3 where NFODOR are both significant at 0.0653. This attest to the robustness of the fact that corporate governance has helped in mitigating management opportunistic tendencies to management earnings of firms for the period under consideration.

5.0 Conclusion and Recommendations

This study investigates the relationship between some corporate governance attributes and earnings management of listed firms in Nigeria. Using secondary data over the period from 2005 to 2020 of 75 firms listed on the floor of the Nigerian Exchange Group (NXG) which was purposively selected from a population of 106 firms, the Robust Least Squares Estimators results reveal that board independence (BODI) is positively significant with earnings management; board size (BODS board gender diversity (BGDIV) and audit committee size (ACS) are negatively significant with it while managerial ownership (MOWN); chief executive officer with military experience (CEOME) and number of foreign directors (NFODIR) are insignificant. While foreign income (FINCOME), year fixed effects (YDUM) and industry fixed effects (IDUM) dummies are negatively and statistically significant, the Big4 auditors is positively insignificant.

Based on the results above, the study recommends that:

i. Management should maintain or increase the present level of board size, audit committee size and the number of females on the board since these variables deter management in managing earnings for the period under reviews.
ii. Investigate the reason CEO with military experience. foreign directors and outside directors could not help in discouraging earnings management since they are positively related to DACC.

References

Al-Zaqeba, M. A. A., Hamid, S. A., Ineizeh, N. I., Hussein, O. J. & Albawwat, A. H. (2022). The effect of corporate governance mechanisms on earnings management in Malaysian manufacturing companies. *Asian Economic and Financial Review, 12*(5), 354-367.

Aryal, R. & Dhesi, G. (2022). The empirical study of the effect of corporate governance on earnings management based on FTSE350, UK. *International Journal of Business and Economic Development, 10*(2), 19-35.

Croux, C., Dhaene, G. & Hoorelbeke, D. (n. d.). *Robust Standard Errors for Robust Estimators.* Department of Applied Economics, Naamsestraat 69, 3000 Leuven, Belgium, 1-33.

Egbadju and Kunemoemi(2019) development of corporate social responsibility(CSR): From evolutional and definitional perspectives. *Journal of Economics, Management & Social Science, 5*(1), 185-201.

Egbadju, L. U. & Jacob, R. B. (2022). Corporate governance mechanisms and performance of quoted non-financial firms in Nigeria. *International Journal of Intellectual Discourse (IJID), 5*(4), 135-147.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics,* 301-325.

Gadhoum, Y. (2021). Corporate governance and earnings management: Evidence from Canada. *Journal of Financial Risk Management, 10*, 516-544.

Gujarati, D. (2003). *Basic econometrics* (4th ed.). McGraw-Hill.

Hassan, Y., Abousamak, A. & Hijazi, R. (2022).Does corporate governance constraint earnings management in an unstable economic and political environment? *Asian Economic and Financial Review, 12*(12), 1074-1093.

Healy, P. M., & Wahlen, J. M. (1999). A Review of Earnings Management Literature and Its Implications for Standard Setting. *Accounting Horizon, 13*(4), 365-383.

Hong, N. T. H., Anh, N. T., Hoang, N. T. V. & Minh, D. N. (2023). Corporate governance, external financing, and earnings management: New evidence from an emerging market. *Future Business Journal, 9*(27), 1-22.

Iqbal, A., Sharofiddin, A., Farooq, Z., Khan, S. A., Bilal, F., Kamran, M. & Rehman, S. (2022). Corporate governance and earnings management practices: Moderating role of audit committees. *Journal of Positive Psychology, 6*(12), 57-72.

Ismail; M. I. & Rasheed, H. A. (2021). Robust Regression Methods / a Comparison Study. *Turkish Journal of Computer and Mathematics Education , 12*(14), 2939-2949.

Jensen, M. C., & Meckling, W. H. (1979). *Theory of the firm: Managerial behavior, agency costs, and ownership structure*. Springer.

Kjærland, F., Haugdal, A. T., Søndergaard, A. & Vågslid, A. (2020). Corporate governance and earnings management in a Nordic perspective: Evidence from the Oslo stock exchange. *Journal of Risk and Financial Management, 13*(256), 1-18.

Korolo, E. O. (2023). Corporate governance attributes and financial performance of listed industrial goods companies in Nigeria. *FUDMA Journal of Accounting and Finance Research [FUJAFR],1*(3), 40-51. https://doi.org/10.33003/fujafr-2023.v1i3.55.40-51

Lee, B. B. & Vetter, W. (2015) Critical evaluation of accrual models in earnings management studies. *Journal of Accounting and Finance, 15*(1), 62-71.

Maeso-Fernandez, F., Osbat, C. & Schnatz, B. (2004). Towards the estimation of equilibrium exchange rates for CEE acceding countries: Methodological issues and a panel cointegration perspective. Working paper Series No. 353.

Mensah, E. & Boachie, C. (2023) Corporate governance mechanisms and earnings management: The moderating role of female directors. *Cogent Business & Management, 10*(1), 1-20.

Naz, A., Naďová Krošláková, M., Farheen, I., Čvirik, M., & Michálková, A. (2023). Nexus between corporate governance and earnings management in family and nonfamily firms. *Economics and Management, 26*(2), 42–57.

Nkoro, E. & Uko, A. K. (2016).Autoregressive Distributed Lag (ARDL) cointegration technique: Application and interpretation. *Journal of Statistical and Econometric Method, 5*(4), 63-91.

Ozili, P. K. (2021). Corporate governance research in Nigeria: a review. MPRA Paper No. 107271. 1-35. Online at https://mpra.ub.uni-muenchen.de/107271/

Pham, T. B. C., Nguyen, H. L., Vu, T. M. T. & Truong, V. T. (2022).Corporate governance and earnings management struggles: responses to adapt a modern capital mobilisation in the transitional economy. *Cogent Business & Management, 9*(1), 1-20.

Razaq, A. G., Alhassan, A. & Omole, P. M. (2023). Corporate governance mechanisms and sustainability reporting practices of listed non-financial firms in Nigeria. *FUDMA Journal of Accounting & Finance Research (FUJAFR),1*(3), 1-18. https://doi.org/10.33003/fujafr-2023.v1i3.50.1-18

Umaru, D. (2014) Audit attributes and financial reporting quality of listed building material firms in Nigeria. (Doctoral thesis, Ahmadu-Bello University Repository, Zaria.)

Usaini, M., & Hooy, C. W. (2023). The effect of corporate governance on earnings management in Nigeria's financial institutions: Moderating role of CEO competency. *Malaysian Management Journal, 27*(July), 21-58.

Vernanda, P. A. & Khusnul, P. (2021). The effect of good corporate governance mechanism on earnings management in Lq-45 companies. [S.l.]: Social Science Research Network (SSRN). https://ssrn.com/abstract=3846777