



EARNINGS MANAGEMENT AND CORPORATE SUSTAINABILITY PERFORMANCE OF LISTED NON-FINANCIAL FIRMS IN NIGERIA

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ABSTRACT:

The study ascertained the effect of earnings management on the corporate sustainability performance of listed non-financial firms in Nigeria. The specific objective was to determine the effect of discretionary accruals and real earnings management on dividend per share. The study adopted the ex-post facto research design. The population of the study was made up of ninety-five non-financial firms listed on the Nigerian Exchange Group (NGX). Secondary data were extracted from the financial statements of the seventy-four (74) non-financial firms listed on the Nigerian Exchange Group which were sampled from the population over a period of 10 years (2012 – 2021). The analysis of data was done using descriptive statistics, panel unit root test, panel least square regression, and granger causality test. The findings showed that: discretionary accruals have a significant but negative effect on dividend per share while real earnings management has a non-significant negative effect on the dividend per share of listed non-financial firms on Nigeria Exchange Group. In conclusion, the deliberate managerial actions, intended towards disguising the real value of a firm's assets, transactions, or financial position, have negative consequences on shareholders. The study recommends that companies should exercise prudence and transparency in their accrual decisions by implementing stringent internal controls and adhering to consistent and conservative accounting policies which can help mitigate the potential adverse effects of discretionary accruals on dividend distribution.

1. INTRODUCTION

Corporate organizations financial reports and accounts disclose their economic, environment and social position and performance to its stakeholders. The financial reports and accounts are regulated



by accounting norms in order to provide confidence and useful information to a wide range of users as economic decision making and comparability among companies concerned (Abbadi, 2021). In order to prepare the financial reports and accounts, managers make a series of estimates and judgments to interpret the firm's results and they also choose the best alternative for which accounting practices to adopt. This process of choice and judgment directly influences the book value of the company, as reflected in the accounting statements (Mahboub, 2017). Having flexibility with accounting standards allows managers to make choices and judgments based on self-interest as opposed to the information required by the public or users. It is important to highlight that according to IFRS (International Financial Reporting Standards), the usefulness of information required by the public users have to provide relevant information and faithful representation and it is enhanced whether it is comparable, verifiable, timely and understandable. The intentional manipulation of the results is referred to by academic literature as earnings management (Aqabna, Aga & Jabari, 2023).

Earnings manipulation arises from the conflicts of interest between insiders and outsiders (Cho & Chun, 2016). In other words, the objectives of companies and stakeholders are not necessarily harmonious with each other, so the company has the incentive to influence the communication process to encourage particular actions from its various stakeholders, such as inspire creditors to supply additional capital in the company's favorable condition. According to Zang, (2012) managers usually use earnings management to achieve their business objectives. The companies/managers, therefore, may be motivated by responsibility; they may also apply sustainable strategies to maximize future long-term earnings. High quality, consistent, comparable and understandable reporting by business enterprises enhances investor confidence and market efficiency (Aqabna, Aga & Jabari, 2023). However, when managers are free to select accounting and reporting methods in the preparation of financial statements. They are often pressured to present to the market the most successful image, by exploiting insufficiencies of accounting rules. One core issue affecting the quality of financial reporting is the degree which managers manipulate reported earnings numbers. Moreover, accrual based accounting contributes to the propensity of earning management as it does not require the physical evidence of cash in recording transactions (Waweru & Riro, 2013).

Earnings are the most significant accounting item in a financial report (Vakilifard & Mortazavi, 2016). Its vital position stems from the fact that it could be used to tell the truth but also could be used in cheating or misleading. Earnings is a key factor in determining the dividend policy, and a guideline for investment and decision-making, a core measure of a firm's performance, an effective criterion in the stock pricing and eventually an instrument utilized to make predictions. The difference between



actual and reported earnings impacts on earnings quality, which is described by market participants as a good indicator of financial reporting quality (Uwuigbe & Okorie, 2015). Corporate sustainability performance mainly focuses on the environmental, social, and economic performance of sustainable development. However, management often used corporate sustainability activities to cover up earnings management and manipulate company earnings because of the loopholes in generally accepted accounting standards (Kagia, 2022). The room for doubt and mistrust in stakeholders and the market has been created in the business environment. In a bid for companies to elude themselves of such scandals, they voluntarily committed to business methods that are socially responsible and demonstrate excellent business behaviour through good environmental responsiveness and moral behaviour might have implication on corporate sustainability performance, therefore debate on the relationship between corporate sustainability and earnings management has been on going without considering corporate sustainability performance effect on earnings management. Hence, this study intends to ascertain the effect of corporate sustainability performance on earnings management among selected listed non-financial firms in Nigeria.

1.1 Objectives of the Study

The main objective of this study is to ascertain the effect of earnings management on the corporate sustainability performance among listed non-financial firms in Nigeria. Specifically, the study intends to:

- i. Determine the effect of discretionary accruals on dividend per share among listed non-financial firms in Nigeria.
- ii. Ascertain the effect of real earnings management on dividend per share among listed non-financial firms in Nigeria.

1.2 Hypotheses

The following null hypotheses guided the study:

- H₀₁: Discretionary accruals have no significant effect on dividend per share among listed non-financial firms in Nigeria.
- H₀₂: Real earnings management have no significant effect on dividend per share among listed non-financial firms in Nigeria.



2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Earnings Management

Earnings management is recognized as attempts by management to influence reported earnings by using specific accounting methods, accelerating expense or revenue transactions, or using other methods designed to influence short-term earnings (Isenmila & Afensimi, 2012). Earnings management remains an important issue that has come to the front burner in recent debate on corporate failures regarding unethical behaviour (Uwuigbe, Uwuigbe & Daramola, 2014). It involves the intentional manipulation of financial information to either delude investors on the underlying economic status of an organization or to gain some contractual benefits that depend largely on accounting numbers. The term 'earnings management' embodies a wide array of accounting techniques used by management to achieve a specific earnings objective (Vakilifard & Mortazavi, 2016). According to Healy and Wahlen (1999) it involves manipulating the earnings figures being disclosed, through the use of the judgmental discretions as permitted by the accounting principles, in order to either mislead the users into believing what is actually not true in respect of the earnings' figures, and hence secure favourable response or to exaggerate contractual outcomes which depend on the disclosed earnings. The basic objective of financial reporting is to provide information about an enterprise that is useful to a wide range of users in making economic decisions (Khurram, 2014). However, the validity of this objective has been questioned by many users of corporate financial reports because of the probable effects of earnings management on information contents of such reports.

2.1.2 Discretionary Accrual Earnings Management

Discretionary accruals refer to accounting adjustments made by a company's management that involve subjective judgment and estimation, rather than being solely based on objective and verifiable transactions (Gill, Biger & Mand, 2013). These accruals are typically part of the process of preparing financial statements, specifically the income statement and the balance sheet. Management of companies gain flexibility to protect themselves and companies in anticipation of unforeseen events. The absence of rules that prohibit for the management to make earnings management, financial accounting standards enable the company's management to determine accounting policies and methods as well as accrual based accounting so as to open the opportunity for management to make earnings management (Anggraini, 2011).



One way earnings management uses the accrual approach. Accrual is the difference between operating cash flow and net income. The financial statements are prepared using the accrual approach. The accruals are divided into discretionary accruals and non-discretionary accruals components (Hayn, 1995). Non-Discretionary components of accruals include those items (accruals) which management is unable applied controls to them and discretionary components of accruals include those accruals which the management applies control on them and can delay or eliminate them or accelerate the registration and identification of them (Okafor & Ezeagba, 2018). Since the discretionary accruals are controlled by management and are applicable by management, the discretionary accruals are used as an indicator of earnings management (Ahmadi, 2015). This can be achieved through the growth of the company until the company goes bankrupt (Hayn, 1995). Companies that are growing often report high earnings to meet investor expectations (Susanto, Paradipta & Djashan, 2017).

2.1.3 Real Earnings Management

Real Earnings Management is management actions that deviate from normal business practices conducted with the primary objective to achieve profit targets conducted in three ways: manipulation of cash flow operations, decrease of expense discretionary and excess production (Cohen & Zarowin, 2010). Real earnings management is a manipulation performed by company management through the company's operational activities that have direct effect on the company's cash flow (Sun & Lan, 2014). Graham, Harvey and Rajgopal (2005) proved that managers prefer real earnings management rather than accrual earnings management, since real earnings management activities are difficult to distinguish from optimal business decisions and are harder to select, even though the costs used in those activities are economically significant for the company. Real activity such as discretionary cost reduction is preferred by managers rather than accrual manipulations as a way of managing earnings. According to Roychowdhury (2006), real earnings management is measured using abnormal cash flow operations and abnormal production cost greater than other companies and abnormal discretionary expenses is smaller. Earnings management through manipulation of real activity is the shifting of earnings management from normal operating practice to practice that suit the desired earnings target (Subekti, Wijayanti & Ahmad, 2010). The shift from accrual earnings management to real earnings management is due to the fact that accrual manipulation can attract auditor's attention compared to real manipulation, such as change of method used by company; reliance on accrual manipulation alone can be risky (Cohen & Zarowin, 2010).



2.1.4 Corporate Sustainability Performance

Corporate sustainability is a concept that acknowledges the need for profitability, but differs from the traditional growth and profit-maximization model in that it places a much greater emphasis on environmental, social, and economic performance and the public reporting on this performance (Alshehhi, Nobanee & Khare, 2018). Corporate sustainability borrows elements from sustainable development which sets out the performance areas that companies should focus on, and also contributes the vision and societal goals that the corporation should work toward, namely environmental protection, social justice and equity, and economic development (Benson & Fortune, 2022). Sustainability performance equally covers corporate social responsibility through which firms work towards community development (Buerthey, Sun, Lee & Hwang, 2020), while corporate accountability provides the rationale as to why companies should report to society on their performance in these areas.

The crux of sustainability performance is that companies should focus on profit, people and planet when evaluating their overall performance. Thus, the predominant definition for corporate sustainability performance is linked to the Triple Bottom Line (TBL) approach referring to the economic prosperity combined with social and environmental responsibility (Budsaratragoon & Jitmaneroj, 2019). This approach suggests that corporate sustainability refers to the equal incorporation of economic, social and environmental concerns in business operations when it comes to making decisions (Alshehhi, Nobanee & Khare, 2018). Therefore, corporate sustainability performance is a multidimensional construct that entails the economic, social and environmental dimensions of a company.

2.1.5. Dividend per Share (DPS)

This is the sum of declared dividends for every ordinary share issued (Yuliza, 2018). Dividend per share (DPS) is the total dividends paid out over an entire year (including interim dividends but not including special dividends) divided by the number of outstanding ordinary shares issued. Dividend per share are the amount of dividends that a publicly traded company pays per share of common stock, over their reporting period that they have issued. DPS may be used by individuals who are evaluating various stocks to invest in and prefer companies who pay dividends. Dividend per Share (DPS) is the total amount of dividends attributed to each individual share outstanding of a company. Calculating the dividend per share allows an investor to determine how much income from the company he or she will receive on a per-share basis (Yuliza, 2018).



2.2 Theoretical Review

2.2.1 Agency Theory

According to Jensen and Meckling (1976) agency relations is a contract between managers (agents), with investors (principal). Principal is the party that employs agents to perform tasks for the interests of principal, while the agent is the party that runs the interests of principal. One crucial assumption that has been widely examined in the literature which has received evidence is the agency theory. Agency theory is one of the theories that has been tested widely in different articles like foreign ownership and earning management by Guo Hang, Zhang, and Zhou (2015) and has gained supportive observations. In general, the theory demonstrates manager (agent) and owner (principal) conflict of interest. The conflict of interest arises as a result of domination of authority. They emphasize the existence of the contrast between managers and stockholders as one of the main hypotheses of agency theory. Agency theory suggested that external governance mechanisms (e.g., activist owners, the market for corporate control, securities analysts) can deter managers from acting opportunistically (Shi, Connelly & Hoskisson, 2017).

Specifically, the relationship between financial statement frauds and corporate governance as a whole can be analyzed within the agency theory theoretical framework (Demsky, 2003) and within the conflicts of interest problems arising among different actors of the firms in those realities not characterized by the separation between owners and. In the two contexts, some figures can be of benefit to information asymmetry to achieve their personal aims (Dey, 2008). It was argued that the agency problems, when high and made worse by a weak corporate governance of the firm as well as conflicts among the main stakeholders of a firm, ended up in fraudulent behaviour by those who could take advantage of information asymmetry and gain personal benefits from them. Thus, financial statement fraud is the result of high agency problems and high conflicts of interest not solved by the company. The existence of separation of ownership by principal by controlling by the agent in an organization tends to cause conflict of agency among principal and agent. The Agency Theory explains that if the company is in poor performance, managers can act opportunistically by raising accounting profit to hide bad performance, otherwise when companies in good performance managers act opportunistically by lowering their accounting earnings to postpone good performance (Dey, 2008). With the financial statements reported by the agency as accountable for performance, the principal may assess, measure and monitor the extent to which the agent works to improve its welfare and as a basis for compensation to agents.



2.3 Empirical Review

Aqabna, Aga and Jabari (2023) examined the relationship between corporate social responsibility (CSR) and firm performance in the MENA region before and after COVID-19. It also seeks to understand how earnings management moderates that relationship. The study sample consisted of 661 firm-year observations from 2007 to 2021. This study employed the random effect estimation (REE) method to examine the relationships and used GMM regression for robustness to investigate the results' consistency. The findings demonstrate that environmental, social, and governance (ESG) scores have a favorable impact on return on assets (ROA), even after adjusting for COVID-19. Regarding the moderating effect of earnings management, the outcome shows that CSR has an insignificant positive impact on financial performance. However, the results demonstrate that ESG has little impact on ROE. Additionally, the findings show a strong positive link between ESG and Tobin's Q.

Kagia (2022) examined the impact of corporate sustainability performance on earnings management from listed firms of the Eurozone. Accrual-based earnings management under the models of Jones (1991) method were adopted using ordinary least square (OLS) as a tool of analysis. For the measurement of Corporate Sustainability Performance, the study considered the social and environmental dimension of the firm and define it on the basis of relative. The findings revealed strong and indicate that Corporate Sustainability Performance is negatively and statistically significantly linked to earnings management for all three methods of measuring it. From our results it can be inferred that the orientation in sustainable development from firms is accompanied by enhanced transparency, accountability to stakeholders and validity of public financial reporting.

Mohamed, Ahmad and Khaled (2022) examined the relationship between the ESG performance and EM practices for a sample of US commercial banks over the period 2010–2019. The study used two proxies for earnings management: abnormal loan loss provisions (ALLP) and EM to meet the threshold of reporting small positive profit or avoiding losses (SPOS). Consistent with the transparent financial reporting hypothesis, the study revealed that banks reporting higher ESG performance are less likely engaged in income-increasing practice through ALLP. However, no evidence supports that ESG score mitigates EM through loss avoidance. Furthermore, we disaggregate the ESG score into its main three components: environmental, social, and governance. Our findings show that the governance pillar effectively mitigates EM practice under its two proxies. Specifically, the social pillar also seems to be an efficient constraint of banks' EM through income-increasing abnormal loan loss



provisions and loss avoidance activity. However, no supporting evidence of a mitigating role for the environmental pillar is provided. Taken together, our results show that, except the environmental pillar, ESG performance score acts as an efficient mitigating tool for EM practices for US banks.

Wati and Gultom (2022) examined whether ownership structure has an influence on earnings management using the control variables of leverage, company size, profitability, and company growth. The purposive sampling method is used for the selection of the research samples. This research uses non-financial companies listed on the Indonesia Stock Exchange from 2016 to 2019 as research objects. Earnings management is measured using discretionary accruals which is a Modified Jones Model. The results of this research indicate that there is no significant effect of ownership structure on earnings management in Indonesia. Only leverage, company size, and company growth have a significant positive effect on earnings management.

Awuye and Aubert (2022) examined the impact of leverage on the earnings management levels of firms and investigates the role it plays in determining the choice of earnings management methods utilized by managers. This study is conducted within the context of European countries. Multiple panel regressions are run with leverage against various measures of earnings management. The results indicate that leverage curtails earnings management but this is only limited to discretionary accruals. Firms make a switch to real earnings management in cases of high leverage. The results indicate a positive impact of leverage on total earnings management and leverage moderates the choice between the two forms of earnings management. In the face of high leverage, managers make more use of real earnings management.

Benson and Fortune (2022), examined the impact of economic indicators on corporate sustainability performance and the performance of South African and Nigerian listed companies using secondary data retrieved from the annual reports of the selected companies. Stakeholder, Social Contract and Signalling Theories were combined to form the theoretical foundation of this study. Data retrieved from 40 companies for the period 2014 -2020 was analyzed using panel ordinary least square (POLS) and generalized method of moments (GMM) methods, representing all sectors with the help of a convenience sampling method. Three Dependent variables were used, namely ROA, ROE and Earnings per share. Explanatory variables were staff costs, sales growth, Net Profit Margin, Environmental and Social governance, corporate tax, inflation, exchange rate and share price. Findings revealed a strong relationship between corporate sustainability.



Ohidoa-Toluwa and Ohidoa (2021), investigated the effect of corporate governance on this likelihood of financial statement fraud on listed companies in Nigeria. Ordinary Least Square (OLS) was used to analyse the data extracted from annual reports of sampled companies. The study revealed that corporate governance mechanism acting in concert does explain the changes in the likelihood of financial statement fraud. However, the individual corporate governance mechanisms such as; institutional ownership, family ownership, board independence and audit committee expertise do not significantly affect the likelihood of financial statement fraud.

Gonçalves, Gaio, and Ferro (2021) analyzed the relationship between earnings management and corporate social responsibility. The study used a sample of 568 listed companies from the European Union between 2010 and 2018. Discretionary accruals were used as the measure of earnings management, under the Modified Jones model. The result found a negative relationship between earnings management and corporate social responsibility, suggesting that managers from more socially responsible companies have a more ethical behavior and, thus, financial reporting of higher quality. Additional analysis provides evidence that economic cycles and financial performance play important roles in the relation between earnings management and corporate social responsibility

Abbadi (2021) determined the impact of family control, firm size and firm age on the accrual earnings management among the Jordanian firms. Data was collected from 42 manufacturing companies listed in Amman stock market for the period 2013-2018. Analysis of data was then performed using two statistical tools of SPSS, linear regression and descriptive statistics. Results revealed that based on the modified Jones model of 1995, there is a flexible accruals earnings management among the Jordanian firms listed in Amman Stock Market. Most of the firms are non-family controlled. Moreover, accruals earnings management has a statistically significant negative association with firm size. However, firm age and family control had no statistically significant association with accrual earnings management.

Egiyi (2021) investigated the impact of leverage on accrual-based earnings management for a sample of Nigerian companies, excluding financial and insurance companies, listed on the Nigerian stock exchange for the period 2000-2020. Secondary data were collected from the Central Bank of Nigeria Statistical Bulletin and World Bank Development Indicators. This study used the Kothari et al. (2005) model to calculate discretionary accruals. The OLS estimation technique was employed to empirically analyze the effect of firm leverage on earning management practices. Consistent with the ‘control hypothesis’ for debt creation, the study found that a significant negative association between leverage



and earnings management for Nigerian firms. The empirical results show that leverage limits earning manipulating activities of managers.

Olatunji and Juwon (2020) investigated relationship between accrual-based earnings, real-based earnings management and firm's value of listed manufacturing companies in Nigeria. The secondary data used were collated from the annual reports of the selected listed manufacturing firms on the Nigeria stock exchange. The study adopted descriptive, panel least square regression technique such as pooled, fixed and random effect with various diagnostic evaluation techniques. The result revealed that accrual-based earnings management measured by abnormal discretionary accrual earnings (ADA) was positively related with the firm's value captured by the return on equity (ROE) of the quoted manufacturing companies and increased it to the turn of 38.31 per cent. On the other hand, the real-based earnings management measured by abnormal cash flow operation activities (ACF) was discovered to be negatively related with the firm's value captured by return on equity and thus reduced it by 12.25 per cent. The probability of F-statistic value revealed that panel regression model was statistically significance and thus valid, reliable and appropriate for assessing the relationship and the effect of earnings management and the firm value of the listed manufacturing companies in Nigeria.

Racha and Demyana (2019) investigate the relationships between ownership structure and Earnings Management (EM) of Egyptian companies. Discretionary accruals using the modified Jones model is evaluated to calculate the extent of EM. A sample of 50 companies listed on the Egyptian stock market for twelve years is used in the study. Three ownership indicators for concentration are included in the current research: block holder ownership, managerial ownership, and public ownership. A set of control variables are used in the current study: return on assets, firm size, firm age, debt ratio and market to book value. The statistical results indicated that there is a positive relationship between the Block holder ownership and the degree of earning management. However, no relationship was found between the Managerial Ownership and the Public Ownership on level of Earning Management.

Putu, Sutrisno and Endang (2019) investigated empirically the effect of accrual earnings management and real earnings management on firm value. The analysis technique used is multiple linear regression analysis. The research samples were manufacturing firms listed on the Indonesia Stock Exchange during the period of 2013 to 2017. The analysis tool used is Multiple Linear Regression. The test results showed that accrual earnings management measured by discretionary accruals did not affect value of the firm. Real earnings management was found to have a negative effect on firm value.



Rachmawati (2019) determined the effect of real and accrual earnings management on the value relevance, proxies by predictive value, feedback value and timeliness. Furthermore, this study investigates whether the company size variable can strengthen the effect of real and accrual earnings management on value relevance. Multiple regression models are used with secondary data from 61 companies, resulting to 183 observations between 2014 - 2016. The results show that there are positive effects of accrual earnings management on predictive value and feedback value and adverse effect on timeliness. Meanwhile, real earnings management only has a positive effect on predictive value. On the other hand, company size only strengthens the effect of accrual earnings management on timeliness.

Khanh and Thu (2019) examines the effect of leverage on the form and extent of earnings management in Vietnamese listed firms. They use panel data of 241 companies on Vietnam stock markets in the period from 2010 to 2016 (1687 firm-years) and conduct GMM regression. Four models are employed to estimate the level of discretionary accruals and real earnings management. The research finds a positive relationship between leverage and earnings management, which is consistent to “debt hypothesis”. Furthermore, a preference for real earnings management over accrual-based earnings management is observed among highly leverage firms. The findings notice the substitution between these two forms of earnings management and reinforce full attention to both accrual-based earnings management and real activities manipulations rather than to separated earnings management strategy.

Ishak, Amran and Manaf (2018) examined the influence of firm characteristics on quality financial reporting. Secondary source of data was obtained from Thompson Database. The sample consists of firms quoted on Bursa Malaysia Main Market covering period from 2012 to 2015. The results revealed that large firms are practicing earnings management. Contrary, high levered firms are less likely to engage in earnings manipulation.

3. MATERIAL AND METHOD

The study adopted the *ex-post facto* research design to determine the effect of earnings management and corporate sustainability performance among listed non-financial firms on the Nigerian Exchange Group. The population of the study was made up of non-financial firms listed on the Nigerian Exchange Group (NGX). As at 31st December 2021, ninety - five (95) non-financial firms were listed on the Nigerian Exchange Group floor. The study used the purposive sampling technique to select the sample population. This sampling technique was used to enable researcher to select firms that he can conveniently assess their data. Non-financial firms that have not operated on the floor of Nigeria



Exchange Group for the period of ten years (2012 to 2021) was excluded from the population. The sample size was made up of seventy-four (74) non-financial firms that have their financial statements available either on their website or in the office of the Nigerian Exchange Group as at 31st December, 2021.

The sources of data includes annual reports and accounts of companies, corporate website of companies and the Nigerian Exchange Group Fact books and CBN Statistical Bulletin of the selected seventy - four (74) non-financial firms listed on the Nigerian Exchange Group covering a period of 10 years (2012 – 2021). The regression model that guided the study was adapted from the study by Putu, Sutrisno and Endang (2019) as shown in Equation I.

$$REM = (ACFO*-1) + APROD + (ADISEXP*-1)-----1$$

Where, ACFO = Abnormal cash flow from operation.

APROD = Abnormal production cost.

ADISEXP = Abnormal discretionary expenses.

REM = A combined measure of real earnings management.

The above model was modified to suit the specific objectives of the present study as shown below in Equation II:

$$DPS_{it} = \alpha_0 + \beta_1 DACC_{it} + \beta_2 REM_{it} + \epsilon_{it}..... (II)$$

Where:

DPS = Dividend Per Share

DACC = Discretionary accruals

REM = Real earnings management

i = Firm Script

t = Firm Script

α_0 = Constant

ϵ = Idiosyncratic error term

β_{1-2} = Coefficients of the predictors

Discretionary accruals earnings management was measured by deducting calculated non-discretionary accruals from total accrual calculated using the cash flow statement approach.

Real earnings management was measured by real activities manipulation: increasing incomes by reducing the overproduction costs for inventory (abnormal production costs) and decreasing discretionary expenditures including R&D, sales, advertising, total and administrative expenditures



(abnormal discretionary expenses). Dividend per share is the annual dividend paid divided by number of shares outstanding

Panel Least Square (PLS) multiple regressions analysis was adopted to examine the effect of earnings management and corporate sustainability performance of listed non-financial firms on Nigerian Exchange Group. The study will use E - View 10 software to analyse panel data for the study. Panel data analysis refers to the statistical analysis of data sets consisting of multiple observations on each sampling unit. This could be generated by pooling time series observation across a variety of cross-sectional units, including countries firms, or randomly sampled individuals. The panel data analysis is the most efficient tool to use when the sample is a mixture of time series and cross-sectional data.

3.1 Decision Rule: the null hypothesis (H_0) is rejected if the calculated value of any of the statistical tools adopted in this study is greater than the critical/table value, at 5% level of significance, otherwise H_0 is accepted. Alternatively, if P-value is equal to or less than the chosen significance level (5%), we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1), otherwise the H_0 is accepted. When a P-value is ≤ 0.05 , it is statistically significant, indicating strong evidence against the null hypothesis.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

The descriptive statistics that is used to answer research questions are presented in **Table 4.1** below.

Table 1 Descriptive Analysis

	DACCRUALS	REALM	DPS
<i>Mean</i>	-5263204	-0.516843	1.113847
<i>Median</i>	-309148.0	-0.520000	0.058000
<i>Maximum</i>	54930642	5.570000	68.20000
<i>Minimum</i>	-5.96E+08	-7.030000	0.000000
<i>Std. Dev.</i>	27489209	0.674013	4.761011
<i>Skewness</i>	-13.74644	-0.263048	9.353968
<i>Kurtosis</i>	266.3712	40.16455	109.3139
<i>Jarque-Bera</i>	2474660.	48754.75	411240.5
<i>Probability</i>	0.000000	0.000000	0.000000



<i>Sum</i>	-4.46E+09	-437.7660	943.4280
<i>Sum Sq. Dev.</i>	6.39E+17	384.3318	19176.47
Observations	847	847	847

Source: Researcher’s Computations using E-views, 10

The mean discretionary accrual is negative, which implies that on average, the company is decreasing its earnings through accruals. This can suggest that the company is using accounting practices to manipulate its financial statements to appear more profitable than it actually is. The minimum value is a large negative number (-5.96E+08), which indicates that there may be extreme cases of manipulation in the dataset. The positive maximum value (54930642) indicates that there may also be cases where the company is using accruals to inflate its earnings. The mean real earnings management is negative, which implies that on average, the company is decreasing its earnings through real actions such as manipulating expenses or revenue recognition. This can suggest that the company is engaging in unethical practices to manipulate its financial statements. The negative skewness value suggests that there may be a high concentration of negative values in the dataset, which can indicate that the company is engaging in more earnings management through real actions.

The mean dividend per shares is 1.113847, which indicates that the company is paying out a portion of its earnings as dividends on average. This can be seen as a positive sign for shareholders, as it suggests that the company is sharing its profits with them. The large maximum value (68.20000) suggests that there may be cases where the company is paying out a significant portion of its earnings as dividends.

4.1.2 Model Diagnostics

4.1.2.1 Panel Root Test

Table 2: Summary of Panel Root Test Results Using Levin, Lin & Chu t

Variables	Statistic	Lag Length	Prob.	Remark
DACCRUALS	-6.12692	1(0)	0.0000	Stationary
REALM	-10.4687	1(0)	0.0000	Stationary
DPS	-4.35634	1(0)	0.0000	Stationary

Source: Researcher’s Computations using E-views, 10

The Panel Root Test was conducted using Levin, Lin & Chu t test to test the stationarity of different variables. The results indicate that all variables are stationary at levels with a probability value of 0.0000. The test suggests that all the variables do not have a unit root and are suitable for further time series analysis.



4.1.2.2: Multicollinearity Test

Table 3: Multicollinearity Test Using VIF

Variable	Centered VIF
DACCRUALS	1.001040
REALM	1.001040

Source: Researcher’s Computations using E-views, 10

Based on the Variance Inflation Factor values, it appears that there is no evidence of multicollinearity between the two variables, DACCRUALS and REALM. The VIF values of both variables are close to 1, indicating that there is no high correlation between them.

4.1.2.3 Test of Autocorrelation

The Breusch-Godfrey Serial Correlation LM test was applied to check for the presence of autocorrelation in the residuals of the regression model. The test is based on the null hypothesis that there is no autocorrelation in the residuals, meaning that the errors are independent.

Table 4: Breusch-Godfrey Serial Correlation LM Test

F-statistic	787.6580	Prob. F(2,842)	0.0000
Obs*R-squared	551.9728	Prob. Chi-Square(2)	0.0000

Source: Researcher’s Computations using E-views, 10

The results of the test indicate an F-statistic of 787.6580 and a corresponding p-value of 0.0000. This suggests that the null hypothesis of no autocorrelation is rejected at the 0.05 level of significance, meaning that there is evidence of autocorrelation in the residuals.



4.1.2.4 Test for Heteroskedasticity

Heteroskedasticity occurs when the variances of the error terms are not constant (Nworie, Okafor & John-Akamelu, 2022). Glejser test of Heteroskedasticity was carried out as reported in Table 4.9 below.

Table 5: Heteroskedasticity Test: White

F-statistic	2.007517	Prob. F(5,841)	0.0754
Obs*R-squared	9.989961	Prob. Chi-Square(5)	0.0755
Scaled explained SS	591.3694	Prob. Chi-Square(5)	0.0000

Source: Researcher's Computations using E-views, 10

The White test for heteroskedasticity yielded an F-statistic of 2.007517 with a probability value of 0.0754. This suggests that there is no significant evidence of heteroskedasticity in the model.

4.1.2.5 Test of Linearity

The Ramsey RESET test was used to test the linearity assumption of the regression model.

Table 6 Ramsey RESET Test

	Value	Df	Probability
t-statistic	0.000746	843	0.9994
F-statistic	5.57E-07	(1, 843)	0.9994
Likelihood ratio	5.59E-07	1	0.9994

Source: Researcher's Computations using E-views, 10

The test result shows a t-statistic of 0.000746, which has a corresponding probability of 0.9994. Since the probability value is greater than the typical significance level of 0.05, we accept the null hypothesis that the model is linear.



4.1.2.6 Test of Causality

The Pairwise Granger Causality Test investigates whether discretionary accruals earnings management or dividend per share Granger causes the other variable.

Table 7 Pairwise Granger Causality Tests DPS DACCRUALS REALM

Table with 4 columns: Null Hypothesis, Obs, F-Statistic, Prob. Rows include tests for DACCRUALS, DPS, and REALM.

Source: Researcher’s Computations using E-views, 10

The alternate hypothesis that discretionary accruals earnings management Granger causes dividend per share is accepted at a very low probability value of 0.0003, and the alternate hypothesis that dividend per share Granger causes discretionary accruals earnings management is also accepted at a 5% significance level with a probability value of 0.0063.

4.2 Test of Hypotheses

The model estimated was used to examine the effect of discretionary accruals and real earnings management does not significantly affect dividend per share of listed non-financial firms on Nigeria Exchange Group.

Table 8 Panel Least Square Regression Result for Dividend Per Share

Method: Panel Least Squares

Sample: 2012 2021

Periods included: 10

Cross-sections included: 77

Total panel (balanced) observations: 847

Table with 5 columns: Variable, Coefficient, Std. Error, t-Statistic, Prob. Row for DACCRUALS.



REALM	-0.095822	0.239402	-0.400257	0.6891
C	0.903317	0.204932	4.407882	0.0000
R-squared	0.031535	Mean dependent var		1.113847
Adjusted R-squared	0.029240	S.D. dependent var		4.761011
S.E. of regression	4.690889	Akaike info criterion		5.932657
Sum squared resid	18571.75	Schwarz criterion		5.949452
Log likelihood	-2509.480	Hannan-Quinn criter.		5.939091
F-statistic	13.74097	Durbin-Watson stat		0.303359
Prob(F-statistic)	0.000001			

Source: Researcher's Computations using E-views, 10

Based on the given output, the R-squared value is 0.031535, which means that approximately 3.15% of the variation in dividend per share is explained by the independent variables in the model. The adjusted R-squared value is 0.029240, which is a slightly lower value than the R-squared value. This indicates that the addition of independent variables in the model does not significantly improve the explanatory power of the model. The F-statistic value is 13.74097, with a p-value of 0.000001, indicating that the overall model is statistically significant. The coefficient for the intercept term (C) is 0.903317, which represents the estimated value of dividend per share when all the independent variables are zero. The t-statistic is 4.407882, which is significant at the 0.01 level, indicating that the intercept term is significant.

4.2.1 Hypothesis One

H₀: Discretionary accruals have no significant effect on dividend per share of listed non-financial firms on Nigeria Exchange Group.

The coefficient for discretionary accruals is -3.06E-08, which means that a one-unit increase in discretionary accruals leads to a -3.06E-08 decrease in dividend per share. The t-statistic is -5.211400, which is significant at the 0.01 level, indicating that this variable has a significant effect on dividend per share. The alternate hypothesis was accepted that Discretionary accruals significantly but negatively affect dividend per share of listed non-financial firms on Nigeria Exchange Group. This result is consistent with the studies by Mohamed, Ahmad and Khaled (2022); Awuye and Aubert (2022); Gonçalves, Gaio, and Ferro, (2021); Suhesti (2017) which discovered that discretionary accruals earnings management affects dividend per earning significantly.



4.2.2 Hypothesis Two

H₀: Real earnings management have no significant effect on dividend per share of listed non-financial firms on Nigeria Exchange Group.

The coefficient for real earnings management is -0.095822, which means that a one-unit increase in real earnings management leads to a -0.095822 decrease in dividend per share. However, the t-statistic is only -0.400257, which is not significant at the 0.05 level, indicating that this variable does not have a significant effect on dividend per share. The null hypothesis was accepted that Real earnings management has non-significant negative effect on dividend per share of listed non-financial firms on Nigeria Exchange Group. This finding is consistent with the studies by Olatunji and Juwon (2020); Putu, Sutrisno and Endang (2019); Suhesti (2017) which found that real earnings management have negative effect on dividend per earning.

CONCLUSION AND RECOMMENDATIONS

The deliberate managerial actions, intended towards disguising the real value of a firm's assets, transactions, or financial position, have negative consequences on: shareholders; employees; contractors or creditors and the communities in which firms work and society at large. Despite all government efforts which is seen in issuance of corporate governance code in years 2003, 2011, 2015 and 2018 respectively, the problem still persists. It was revealed in the study that discretionary accruals earnings management has significant effect on dividend per earning. The practical implication is that a one-unit increase in discretionary accruals leads to a decrease in dividend per earning. Real earnings management does not significantly affect dividend per earning which means that a one-unit increase in real earnings management leads to a -0.09 decrease in dividend per earning. In conclusion, the deliberate managerial actions, intended towards disguising the real value of a firm's assets, transactions, or financial position, have negative consequences on shareholders.

In view of the findings of this study, the following recommendations are proffered:

- i. Companies should exercise prudence and transparency in their accrual decisions by implementing stringent internal controls and adhering to consistent and conservative accounting policies which can help mitigate the potential adverse effects of discretionary accruals on dividend distribution.
- ii. Companies should maintain ethical and responsible earnings management practices by focusing on sustainable business practices that contribute to long-term value

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