

Sustainability Reporting: A Panacea to Corporate Earnings Management in The 21st Century

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Abstract: The use of sustainability reporting in the financial report preparation process is a result of firms' increased concern to meet their demands without compromising future needs. Nigeria is not an exception to the global problem with corporate accounting information disclosure practices, as evidenced by a number of banking sector failures. This has caused the financial reporting's integrity to suffer. This study looked at how listed Deposit Money Banks (DMBs) in Nigeria managed their corporate earnings in relation to sustainability reporting. The study adopted the ex post facto research design. The study's population comprises fourteen (14) Nigerian Deposit Money Banks that are listed. Purposive sampling technique was used to choose ten (10) deposit money banks as the sample size. Data were taken from CBN Statistical Bulletins and audited reports of the sampled deposit money banks. Both descriptive and inferential statistics were used to analyze the data. The results showed that, for discretionary accruals and abnormal production costs, respectively, Sustainability Reporting had a significant effect ($\text{Adj } R^2 = 0.43$, $F\text{-Stat } (5, 95) = 668.67$, $p < 0.05$); ($\text{Adj } R^2 = 0.46$, $F\text{-Stat } (5, 95) = 51.72$, $p < 0.05$). The study came to the conclusion that corporate earnings management of deposit money banks listed in Nigeria is greatly impacted by sustainability reporting. The study recommended that in order to reduce earnings management, management should strictly enforce compliance with sustainability reporting, particularly with regard to economic sustainability reporting, which has a positive link with discretionary accruals.

Keywords: Abnormal production cost, Corporate accounting information, Discretionary accruals, Earnings management, Economic sustainability reporting, Sustainability Reporting
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1. Introduction

A number of Nigerian deposit money banks have failed due to poor financial management, insufficient corporate governance, and ineffective earnings management. On January 16, 2006, the Central Bank of Nigeria (CBN) named 14 banks whose licenses were revoked and operations were halted because they failed to pay their obligations. As a result, some banks merged and others were bought out by other financial organizations. One well-known instance is Eco Bank Plc's 2007 acquisition of All States Trust Bank Plc. The legitimacy of the financial information that companies give to internal and external stakeholders has been considerably damaged by these issues. This

impacts the sustainability and reputation of the organizations, which in turn impacts the corporate image and sustainable development of the firms (1). Results from earlier research on the relationship between non-financial information sharing and earnings management have been conflicting or even mixed (2). Irrespective of the industry localization or not, every business is deemed to be located inside a particular geographic area. Well-known businesses usually have an impact on or serve a purpose in the environment around them. The CSR (Corporate Social Responsibility) goals of the organization are strongly linked to a number of these roles. In order to outperform their rivals by increasing their market share and profit margins, businesses begin to concentrate on how to grow. As a result, the general

population and other external factors are affected. Banks are financial organizations that are essential in influencing the economy and raising the standard for sustainable development since they act as circulators of liquid currency and intermediaries of capital. The globe has become quite interested in sustainability reporting in the past few years (3). In the banking sector, there has been a recent rise in awareness of sustainability reporting. However, it still seems that less industrialized and emerging countries are unaware of it.

In the past, Nigerian financial institutions have had to deal with development issues that needed a lot of attention from the government, regulators, businesses, investors, non-governmental organizations, and educational institutions. Gains and past failures are inescapably linked. Even if a lot of academics have written about profits management in their studies, it is almost impossible to provide a thorough explanation of such a broad topic due to the term's simplicity. (1) define earnings management as a strategy used by a company's management to influence the earnings stated in its financial statement. Earnings management, according to (4), is the process by which management plans transactions to manipulate reported earnings in order to show contractual or deceptive outcomes to their naive clients in financial statements.

Earnings management, according to (5), is an executive activity that entails influencing the financial reporting procedure in order to accomplish particular objectives. On a quarterly or annual basis, it is employed to improve variances in earnings and total profits. It is described as a purposeful attempt to influence the external financial disclosure process for one's personal financial gain. Profit management can also be understood as a deliberate methodology where management displays fictitious results (6). Earnings management manipulates the public's impression of a company's financial status to artificially raise earnings. Investors are frequently motivated by findings that are overly favorable. Earnings Management is also known as "Creative Accounting." According to (7), it

entails faking statistics to show a company's performance as better than it actually is. To make the information look better, the accounting data is changed.

Sustainability, according to (8), is the capacity of an organization to undertake new projects that push it to address problems and changes related to the ecological, social, and economic settings as well as the risk management that its surrounds demand. According to (9), investors place greater trust in an organization's annual reports when it exposes its social responsibility initiatives. The four primary components or domains of sustainability reporting comprise an enterprise's environmental, social, economic, and governance objectives. A number of banking institutions have set themselves some corporate social responsibility (CSR) objectives to benefit the local community and environment, as well as to gradually improve their standing. But considering that banks present a favorable picture of their profits and financial situation, how many of them truly meet these expectations?

False financial reporting, which includes overstating financial statements, contributed to the financial system's instability and resulted in the arrest of many institutions and the corporate collapse of most Nigerian banks (10). These numerous business failures highlight the shortcomings in corporate accounting information disclosure that exist worldwide, particularly in Nigeria. This has had a major effect on the accuracy of financial reporting. According to (11), a company's bankruptcy or collapse can have a number of negative repercussions, such as a significant loss of investor funds, job losses, interruptions to the capital market, and a decline in the nation's GDP. Some companies overstate their profit margin to meet the high expectations of their investors. (12) contend that falsifying financial reports only offers fleeting benefits, leaving companies vulnerable to collapse.

According to (13), earnings management is currently a hot topic in accounting practice around the globe. This is a result of the moral viewpoint that surrounds it. Early in the 1990s, domestic and international regulators began to identify earnings management as one of the

main challenges associated with financial reporting (14). Any management action that affects reported income, provides no real financial advantage to the company, and could have unfavorable long-term effects is considered earnings management (15). The phrase "Earnings Management" is commonly used in Europe, while "Creative Accounting" is the term most commonly used in the United States of America (USA).

A rising number of people are concerned about earnings management because it threatens the credibility of the accounting and auditing departments. The quantity of window-dressing banks' financial statements in Nigeria has seriously violated all accepted ethical rules of the accounting and auditing professions (16). As a result of the aforementioned, the aim of this study is to ascertain how corporate earnings management in the twenty-first century might be addressed by sustainability reporting, with a focus on deposit money banks, one of the bed rock of the economy.

The main objective of the study was to investigate how sustainability reporting can affect earnings management of listed deposit money banks in Nigeria.

The following hypothesis are formulated:

H₀₁: There is no significant effect of sustainability reporting on the discretionary accruals of listed deposit money banks in Nigeria.

H₀₂: Sustainability reporting has no significant effect on the abnormal production costs of Nigerian listed deposit money banks in Nigeria.

2 Literature Review

2.1 Conceptual Review

2.1.1 Earnings Management

The primary objectives of any firm or organization are profit maximization and long-term quality improvement of financial reports. As mentioned, the company's steady profitability may entice investors. Investors place more weight on an organization's financial report if it can assist them in making financial decisions. This is the point at which earnings management comes into play and gains importance. Earnings management is the

innovative use of various financial techniques or methods to enhance the overall presentation of an organization's reporting. According to (17), earnings management is "the practice of distorting the true financial performance of the company." These days, when an organization presents its financial reports, the management of the company has taken on the role of earnings management. Earnings management is the practice of managers using their judgment to analyze financial facts, whether or not they are subject to restrictions (18).

Earnings management is the process of applying rules or arranging a certain transaction. The intention is to portray to the public a financial health picture that aligns with the board of directors' intentions, rather than the company's real financial performance and circumstances. Regardless of the justification for result management, investors typically perceive profits management as detrimental due to the subsequent decrease in the dependability and openness of disclosed financial data (19). Earnings management should not be manipulated using dishonest means. According to the National Association of Certified Fraud Examiners, financial fraud is "the intentional, deliberate misstatement or omission of material facts, or accounting data, which is misleading and, when considered with all the information made available, would cause the reader to change or alter his or her judgment decision." Furthermore, "earnings management" refers to ethical and legal management reporting and decision-making with the aim of obtaining consistent and predictable financial results. Financial statement users consider it to be unethical, but not illegal (20).

2.1.1.1 Discretionary Accruals

Accruals are the differences between operating cash flows and total income. Using management estimates and income assessments, total incurred expenses are computed to improve accounting net profit and reflect improved economic conditions (21). For accrual-based accounting, total accrued must be split into non-discretionary and discretionary categories. The amount of owned

resources, such as assets or liabilities, that are recorded but do not need to be settled right away is referred to as discretionary accruals. (22) define discretionary accruals as profits that are influenced by expenses related to administration, cost of sales, advertising, and research and development. Dechow (1994) asserts that because discretionary accruals provide managers flexibility, they can often affect earnings.

Management has the authority to change or abolish discretionary accruals items, record them earlier, or both. These items can also serve as examples for how earnings management is carried out. Discretionary accruals are more manipulated than cash flows since they are subjective and based on estimates. Discretionary accruals are measured using the Modified Jones Model (1991), deferred tax expense, total accruals, and forward-looking accruals.

(23) suggest that there might be a strong positive relationship between discretionary accrual proxies and organizations that control earnings. (24) state that management is driven to boost positive increases in earnings if the company's current profit is lower than its profit from the previous year. Management is aware that in order to adjust profit in these situations, earnings management will need to use discretion. Discretionary accruals are equivalent to anomalous accruals, although appearing to be a more connected choice than an estimate.

2.1.1.2 Abnormal Production Costs

Production cost is a fundamental concept that practically all company plans can use. Production costs are the overall expenditures incurred to providing an item or service in a specified or desired quantity. Production costs can be computed as the sum of the change in inventory and the cost of goods sold (COGS). When an entity's production costs deviate from management's intentions, it's commonly referred to as an atypical production cost. In this instance, the management's costs usually come up quickly and without warning.

Maintaining higher-than-necessary inventories or services is one strategy to control production costs.

(25) categorized production cost manipulation as an additional form of earnings management. By monitoring production costs, management is able to increase productivity above average. When the profit margin increases, this has the effect of driving up production expenses to an unreasonably high level and driving down the cost of goods sold (COGS) (Thomas & Zang, 2002).

2.1.1.3 Abnormal Level of Operating Cash Flow

Cash flow is the total amount of cash and cash equivalents that a business receives as revenue and pays out to its creditors. To evaluate the liquidity of the company, management separates cash flow into three categories, which are often categorized as operating, investment, and financing. This study's primary focus is on operating cash flows and the potential for artificially inflating them to look abnormal. Operating cash flows are the cash and cash equivalents that come from a company's everyday operations. Sales revenue, cost of products sold, and administrative expenses make up a company's operating cash flows. Operating cash flow can be distinguished clearly between normal and abnormal.

An organization is said to be generating abnormal operational cash flows if it falsifies earnings to demonstrate a lower-than-normal cash flow from operations (26). According to (25), sales management is the process utilized to operate cash flow to reflect unusual goals. Sales management is related to the manager's efforts to increase revenue and profitability in order to reach targets. To enhance sales management and acknowledge exceptional work, two measures are provided: sharp discounts and soft credit credits.

2.1.2 Sustainability Reporting

Studies on traditional issues are now often regarded as inferior to studies on sustainability. "Sustainability" generally refers to a framework that takes into account financial and economic challenges in addition to "extra-

financial" environmental, social, and governance (ESG) issues. According (8), sustainability is the ability of an organization to take on new projects that drive it toward events and changes in the environmental, social, and economic spheres as well as the management of environmental risk. Sustainability reporting, according to (27), aids businesses in managing their objectives, output, and transformation toward a sustainable global economy. Customized sustainability reporting is seen as "good business" and shows stakeholders in the organization a higher level of accountability and transparency.

According to Certified Practicing Accountants Australia, businesses and organizations monitor and disclose their environmental, social, and economic performance through sustainability reporting. The sustainability performance indicator may be included in an organization's annual report, distributed separately, or included as part of a triple-bottom-line report. Additionally, it was found that sustainability reports strongly positively correlated with a low probability of firm difficulties. According to the theory underlying sustainability reporting, a company must work toward achieving its aim, or traditional objective, of creating profits in order to maximize profits through initiatives that attempt to take social and environmental elements into account when making choices.

2.1.2.1 Economic Sustainability Reporting

The main objective of an economic report is to reveal the financial performance of a company. This includes operating profit, return on net assets, earnings per share, dividend yield, debt-to-equity ratio, and return on shareholders' equity for the company. A strong return on equity is likely to increase shareholder confidence, but a negative return on equity or low earnings per share may discourage investors from investing in the company. By sharing information about the organization's financial performance, information asymmetries can be reduced and organizational transparency raised. Based on the disclosure, investors will also be better equipped to compare and assess businesses, allowing them

to make educated investment decisions. Presenting the sustainability report to creditors will help the company justify its business practices, claim (28).

According to (29), companies with stronger financial performance will be better able to improve their social and environmental reporting. Additionally, these companies will be able to improve relationships with their employees and employers, ensure that their products are safer to use, protect the environment, and build deeper partnerships with their clientele. Financially successful companies will have more resources at their disposal to enhance their overall social and environmental performance.

Among the metrics used to assess the economic reporting are return on equity, which serves as a gauge of return for both common and preference shareholders on their capital investments in the business, and return on capital utilized. Earnings per share, or ROCE, is a metric used to aggregate returns from all assets. The acronym EPS stands for earnings before taxes and preferred dividends. It is stated as a number of outstanding common shares.

2.1.2.2 Environmental Sustainability Reporting

Environmental sustainability strategies have been re-evaluated by business and industrial executives due to growing social consciousness about the condition of Earth's ecosystems. Corporate and industry leaders have been forced to reconsider their approach to environmental sustainability as public awareness of the condition of the planet's ecosystems has grown. The desire for environmental sustainability emerged from the realization that ecological impossibility stems from the wasteful and uneven nature of current development patterns projected into the future (30). Long-term ecological and economic stability can be achieved by modifying growth patterns within the larger framework of environmental sustainability.

Ecosystem stability, resource availability, and biodiversity are all aspects of environmental sustainability. It implies that resources ought not to be depleted faster than they may be

replenished. Environmental pollutants shouldn't be released more quickly than the ecology can absorb them, claims (31). An environmentally conscious organization runs its activities according to the principles of sustainable development. According to (32), this means that the company will not deplete natural resources faster than they can be replenished, that it will use less energy in the manufacturing and delivery of its products, and that it will produce products that can be disassembled and repurposed as they wear out. There are three stages that businesses must go through in order to comply with the concept of a sustainable environment while implementing green management practices. The first stage, referred to as pollution prevention, is to reduce or eliminate waste before it is generated. Product stewardship is the second phase. Managers focus on all environmental impacts associated with a product's whole life cycle, from design to eventual use and disposal, in this section. The use of clean technologies makes up the third and most important section. In order to support sustainability, organizations create cutting-edge new technologies in this field (33).

2.1.2.3 Social Sustainability Reporting

Corporate goals have shifted from making profits to delivering value for all stakeholders, including shareholders, and fulfilling social responsibility. This is a result of investors backing companies that uphold the concept of corporate sustainability, which diversifies their holdings. Investors find this venture method appealing because it welcomes opportunities to create long-term shareholder value while managing risks associated with present social, environmental, and economic events. The social component of corporate sustainability is based on the notion that businesses may enhance the social cohesion of communities by interacting with a wide range of stakeholders and responding to their particular needs as they evolve. This will result in an extended "license to operate" as well as remarkable staff and client loyalty (34). Guidelines for social reporting that support corporate sustainability assess how well a company has carried out its

social goals. It is evaluated in compliance with the rules, regulations, and guidelines put in place. The social dimension of corporate sustainability is bringing an organization's social aim to life by the integration of socially acceptable values and the performance of social obligations (35). According to corporate sustainability social reports, businesses must adhere to a core value of doing good that goes beyond the "business as usual philosophy." It entails matching the interests of the organization's stakeholders with its decisions, practices, beliefs, and goals. The social aspect of sustainability encourages firms to go above and beyond legal requirements and their own vested interests to increase social benefit. Active pursuit of social performance practices—which include social issues into business operations and strategies—is necessary to effectively satisfy stakeholder and societal needs. There are three sections to the corporate sustainability social report: Identifying an organization's areas of social responsibility, corporate misconduct and unethical behaviour and implementing social issue management programs (36).

Organizational activities and the larger society and environment they operate in are now closely intertwined. Therefore, they must accurately measure their social performance in order to maintain their sustainability. A company's social sustainability is based on how much it truly and credibly commits to all aspects of its business operations (usually over a long period of time) and how much it understands accountability for its actions.

2.2 Theoretical Review

2.2.1 Signalling Theory

The signalling hypothesis was developed by (37). The intuitive nature of signalling theory contributes to its widespread application. Interestingly, Spence, the man who came up with the idea in the first place, was famously asked by a journalist once if he could possibly win the Nobel Prize in Economics for simply pointing out that in certain markets, certain people don't know certain details that other

market participants would want to share (Spence, 2002). Although, Spence shot back, the correct answer was probably still "no," a real attempt to capture the informational aspects of market systems did manage to succeed at the time. The profundity of the theory then lies in assigning costs to knowledge acquisition processes that resolve information asymmetries in a broad range of economic and social phenomena.

The notion was predicated on the idea that when the party possessing greater information conveys to others the difference between ownership and management, asymmetry can be mitigated. It also acknowledged that because managers know more about the company than owners and investors do, they are driven by market pressures to reveal information. In opposition to the agency theory, the concept that individuals are acting in their own best interests is also upheld.

This hypothesis states that successful businesses are also those who increase public awareness of their voluntary disclosures, as this is perceived as an easy method for them to differentiate themselves from rivals in the industry (39). Because of this, companies disclose information to stakeholders about their sustainability programs in an attempt to reduce knowledge asymmetry and build their reputation as morally upright companies.

2.2.2 Stakeholders Theory

The stakeholder theory was first put forth by Dr. (40). In popular culture, he is credited as the creator of the stakeholder hypothesis. The concept emerged after the publication of Freeman's book "Strategic Management: A Stakeholder Approach." This theory recognized other individuals as stakeholders.

Except for the fact that stakeholder theory recognized a relationship that extends beyond the manager-owner dynamic, agency theory and stakeholder theory are similar in their conceptions. Thus, in addition to these groups of stakeholders, stakeholders' theory also takes into account suppliers, customers, communities, and employees. (41) investigated how the theory takes into account a wider range of stakeholders than only the typical interaction

between shareholders and managers, which is the main focus of agency and shareholders' theories. A stakeholder is an individual or group of individuals with a legitimate interest in a particular organization and a benefit to it. Stakeholders are the people or organizations that, in the words of Freeman (40), the business could not function without. Stakeholders can be divided into two groups: internal and external. Stakeholders can be classified as either internal or external depending on their affiliation with the organization. In general, stakeholders can be classified as financial, supply chain, social, regulatory, or political. Stakeholders in an organization, banking industry or not, have a say in the success or failure of the business.

Transparency in reporting is the cornerstone of this strategy. Stakeholders are more confident in reported earnings when they are clear and precise. (42) argues that stakeholders should be notified of important information even if it has little influence on the organization's ability to survive. Freeman's stakeholder theory was supported by (43), (44), (45), and Phillips (2003). Blattberg (46) and (47) have also made critiques.

(2) asserts that managers who adopt this strategy will be more focused on controlling profits than on presenting an image of environmental responsibility. This concept will remain relevant to earnings management and disclosure in sustainability reports.

2.3 Empirical Review

(2) looked at reporting practices for sustainability and earnings management in a growing economy. The study analyzed the effects of sustainability and extra non-financial reporting on how companies employ profit management techniques by comparing companies that were listed on the (48). The results of the study demonstrated that, following the adoption of the European Directive requiring the mandatory publication of non-financial information, companies listed on the Bucharest Stock Exchange ceased to employ earnings management tactics.

(49) looked into how earnings management techniques were affected by sustainability engagement in the Italian environment. The

sample included sixty companies that were listed on the (50). The study used regression analysis, and the results indicated that participation in sustainability initiatives and earnings management techniques had a weakly negative link.

(51) investigated the impact of earnings management on the financial performance of Nigerian deposit money organizations. The examination was prompted by business failures and breakdowns in the banking sector, despite the audit reports being flawless. The study used an ex post facto research design. For a period of eight (8) years, ten (10) deposit money banks (DMBs) were randomly chosen as a sample. The key information sources were the financial statements' accompanying remarks and the yearly reports of accounts that were made accessible to the public. The study confirmed accrual-based earnings management's existence and its relationship to DMB's financial success. The researchers recommended appropriate and practical methods for evaluating, dissecting, and closely examining deposit money bank financial statements.

(23) looked at the effects of sustainable management on accruals-based and real earnings management. 1,418 publicly traded businesses that were included in the (52) sample between 2015 and 2017 provided the data for this study. The study's findings demonstrated that the amount of governance control affects earning management to a certain extent, and that companies that achieved sustainable management generally had lower levels of AEM and REM than other company categories.

(53) looked at the connection between earnings management and bank performance. The study examined the effect of profits management on the current and prospective profitability of banks using data from (55) European banks between 2001 and 2015. The data came from the DataStream database and the annual financial reports. Return on equity was one of the performance proxies examined in the article, and it continuously showed how damaging earnings management was to later success.

Abbas (2018) examined the effects of discretionary accruals on earnings management in the Indonesian banking sector prior to and during IFRS convergence in his research. This study has provided evidence about the phenomenon of earnings management in the banking sector. This study used multiple regression and non-parametric Wilcoxon Signed Ranks to assess 23 banks that were listed on the Indonesia Stock Exchange between 2007 and 2014. This analysis found that there was no significant change in the mean between the pre- and post-IFRS convergence eras. Furthermore, an income-decreasing pattern was found to have a higher effect on the increase in firm value compared to an income-increasing one.

3. Methodology

This study adopted an ex post facto research design, analysing historical data from 2013 – 2022. The population comprised all 14 deposit money banks listed on the Nigerian Exchange Group (NGX). A purposive sampling technique was employed resulting in a final sample of 10 deposit money banks based on their market share, significant capital base and consistent listing on the NGX throughout the study period. Data were sourced from audited annual reports of the sampled banks and the Central Bank of Nigeria statistical Bulletins.

Estimation Technique

The study employed the Two-Step System Generalized Method of Moments (System GMM) estimator developed by Arellano and Bover (1995) and Blundell and Bond (1998) to estimate the dynamic panel models. The System GMM was chosen for several critical reasons: the model include a lagged dependent variable (LDAC) and (LABPRC) as a regressor to capture the persistence of earnings management practices. Ordinary Least Squares (OLS) estimation in such a dynamic panel setting produces biased and inconsistent estimates, the relationship between sustainability reporting and earnings management is likely characterized by endogeneity. For instance, firms that manage earnings might also strategically choose their level of sustainability disclosure. The System

GMM estimator effectively controls for this by using appropriately lagged levels and differences of the regressors as internal instruments, the model likely contains unobserved, time-invariant bank specific effects such as corporate culture and management philosophy; the System GMM estimator accounts for this by transforming the data through differencing.

The robustness of the GMM estimator was verified using post estimation diagnostics tests: The Arellano-Bond test for autocorrelation AR(1) and AR(2) was used to check for first order and second order serial correlation in the differenced errors. A significant AR(1) test is expected and unproblematic, while a non-significant AR(2) test supports the validity of the instruments indicating no serial correlation in the levels of the errors.

The Hansen test of over identifying restrictions was used to check the overall validity of the instrument set. A non-significant p-value indicates that the instruments are valid and exogenous.

Both descriptive and inferential statistics were used to analyse the data. The data analysis was conducted using Stata 17.

Model Specification

$$Y = f(X) \text{ ----- (1)}$$

Y= Dependent Variables

X = Independent Variables

Where: Y = Earnings Management (Dependent Variable)

X = Sustainability Reporting (Independent Variable)

Y= y_1, y_2

y_1 = Discretionary Accruals (DAC)

y_2 = Abnormal Production Costs (ABPRC)

And X = x_1, x_2, x_3

X = Sustainability Reporting (SR)

x_1 = Economic Sustainability Reporting (ECOSR)

x_2 = Environmental Sustainability Reporting (ENVSR)

x_3 = Social Sustainability Reporting (SOC SR)

$y_1 = f(x_1, x_2, x_3)$

$y_2 = f(x_1, x_2, x_3)$

$y_3 = f(x_1, x_2, x_3)$

DAC = f (ECOSR, ENVSR, SOC SR)
.....equation I

ABPRC = f (ECOSR, ENVSR, SOC SR)
..... equation II

β_0 = Constant

$\beta_1 - \beta_3$ = Model co-efficient and parameter estimates

μ_E = Error term of the proxies

DAC = $\beta_0 + \beta_1 \text{ECOSR}_{it} + \beta_2 \text{ENVSR}_{it} + \beta_3 \text{SOC SR}_{it} + \mu_{it}$ MODEL 1

ABPRC = $\beta_0 + \beta_1 \text{ECOSR}_{it} + \beta_2 \text{ENVSR}_{it} + \beta_3 \text{SOC SR}_{it} + \mu_{it}$ MODEL 2

4. Data Analysis, Results and Discussion of Findings

Descriptive Statistics

Table 4.1: Descriptive Statistics of Sustainability Reporting and Corporate Earnings Management

Variables	Mean	Maximum	Minimum	Std. Dev.	Obs
ABPRC	0.134	1.726	-2.620	0.356	100
DCA	0.396	2.994	-6.823	1.417	100
ECO SR	3.156	4.000	2.000	0.481	100
ENV SR	3.073	5.000	1.000	1.324	100
SOC SR	4.278	5.000	2.500	0.582	100

Source: Author's Computation (2024)

Correlation Matrix

Table 4.2: Correlation Matrix of Sustainability Reporting and Corporate Earnings Management

Variables	ABPRC	DCA	ECOSR	ENVSR	SOC SR	VIF
ECO SR	0.013	-0.028	1.000			1.28
ENV SR	0.024	-0.140	0.526	1.000		2.13
SOC SR	0.081	-0.036	0.566	0.685	1.000	2.04

Source: Author's Computation (2024)**Test of Hypotheses****Hypothesis One**

There is no significant effect of sustainability reporting and discretionary accruals of listed deposit money banks in Nigeria.

Table 4.3: Sustainability Reporting and Discretionary Accruals**Dependent Variable: DCA**

Variables	Coeff	S.E	Z-test
L.DCA	1.0444***	0.029	36.553
ECOSR	0.0003	0.006	0.041
ENVSr	-1.5675	0.955	-1.641
SOCSR	-0.7795***	0.251	-3.110
Constant	-0.3590	0.306	-1.172
Observations	100		
Adjusted R ²	0.43		
Number of groups	10		
Wald chi-square	668.67 (0.000)		
AR1 test	-7.10 (0.000)		
AR2 test	-1.17 (0.242)		
Hansen test	0.57 (0.902)		
Sargan test	1.25 (0.408)		

Source: Author's Computation (2024)

$$DCA_{it} = \beta_0 + \beta_1 ENVSr_{it} + \beta_2 ECOSR_{it} + \beta_3 SOCSR_{it} + \varepsilon_{it}$$

$$DCA_{it} = -0.359 - 1.568 ENVSr_{it} + 0.0003 ECOSR_{it} - 0.779 SOCSR_{it}$$

Interpretation

The Adjusted R², which determines the percentage of changes in discretionary accruals as a result of changes in the prior value of discretionary accruals, environmental reporting, economic reporting, social reporting, and corporate governance reporting, accounts for about 43% of the changes in discretionary accruals. Other factors not included in the model account for the remaining 57% of the changes in discretionary accruals. The Wald Chi-Square Statistic of 668.67 with a probability value of 0.000 is notable at the five percent significance level. In other words, the null hypothesis—which states that sustainability reporting has no significant effect on deposit money institutions' discretionary accruals was rejected, while the alternate hypothesis—which states that sustainability

reporting significantly affects those accruals was accepted.

Hypothesis Two

Sustainability reporting has no significant effect on abnormal production costs of listed deposit money banks in Nigeria.

Table 4.4: Sustainability Reporting and Abnormal Production Cost**Dependent Variable: ABPRC**

Variables	Coeff	S.E	Z-test	Prob.
L.ABPRC	0.710***	0.191	3.717	0.000
ECOSR	0.241	0.187	1.289	0.198
ENVSr	-0.785***	0.119	-6.597	0.000
SOCSR	-0.757***	0.214	-3.537	0.000
Constant	-0.482	0.882	-0.546	0.587
Observations	100			
Adjusted R ²	0.46			
Number of groups	10			
Wald chi-square	51.72 (0.000)			
AR1 test	-2.53 (0.011)			
AR2 test	-0.90 (0.369)			
Hansen test	1.26 (0.373)			
Sargan test	2.73 (0.447)			

Source: Author's Computation (2024)

$$ABPRC_{it} = \beta_0 + \beta_1 ENVSr_{it} + \beta_2 ECOSR_{it} + \beta_3 SOCSR_{it} + \varepsilon_{it}$$

$$ABPRC_{it} = -0.482 - 0.785 ENVSr_{it} + 0.241 ECOSR_{it} - 0.757 SOCSR_{it}$$

Interpretation

According to the Adjusted R², reporting on changes in the prior value of abnormal production cost as well as reporting on environmental, economic, social, and corporate governance aspects all contributed to about

46% of the changes in abnormal production cost. The remaining variations in abnormal production cost were explained by other factors, which were not included in the model but accounted for 54% of the changes in abnormal production cost of deposit money institutions in Nigeria. This implies that the null hypothesis, which states that sustainability reporting has no significant effect on the abnormal production cost of deposit money banks, was rejected and the alternate hypothesis, which states that sustainability reporting has a significant effect on the abnormal production cost of deposit money banks, was accepted. At the five percent significance level, the Wald Chi-Square Statistic of 51.72 with a probability value of 0.000 is significant.

Discussion of Findings

The first hypothesis of the study assessed the impact of sustainability reporting on discretionary accruals. This data confirms the conclusions of (56), who looked at how different corporate governance characteristics affected listed businesses' ability to reduce earnings management on the Shanghai and Shenzhen stock exchanges in China. They found that certain characteristics of company governance, such as CEO duality, board meetings, female directors, and concentrated ownership, were positively correlated statistically with earnings management. Furthermore, (57) investigated the effects of several corporate governance and audit quality factors on earnings management. The study found that there are negative relationships between earnings management and the audit committee's independence, size, expertise, and frequency of meetings. Earnings management benefits from the audit committee's shareholding. In terms of auditor size, specialization, and longevity, there is a negative correlation between the quality of audits and earnings management.

The second objective of the study evaluated the influence of sustainability reporting on unusual production costs. The results show that there is

a negative correlation between reporting on social and environmental sustainability and abnormal production costs, but a positive correlation between the lag of abnormal production costs and corporate governance, economic, and environmental sustainability reporting. Furthermore, the Wald Chi-Square test rejected the null, which maintained that sustainability reporting had no effect at all on the abnormal production cost of these banks. This meant that the alternative hypothesis, which holds that sustainability reporting significantly influences the abnormal production cost of deposit money banks in Nigeria, was accepted. (58) found similar results, claiming that social, environmental, and economic disclosure—all three facets of sustainability reporting—significantly impair earnings management. (59) further confirmed that family ownership frequently has a major impact on the types of profit management strategies used. businesses with a higher ratio of non-business groups and family ownership are more likely to choose efficient earnings management as compared to other types of businesses.

5. Conclusion and Recommendations

The main objective of the study was to look at how sustainability reports affected earnings management in Nigerian deposit money institutions in the twenty-first century. According to the study's objectives, the results demonstrated that while reporting on social and environmental sustainability is negatively correlated with discretionary accruals, reporting on economic sustainability is positively correlated with them. Furthermore, it showed that while reporting on economic sustainability showed a positive association, reporting on unusual manufacturing costs, environmental sustainability, and social sustainability demonstrated a negative link. There is an abnormally high level of operating cash flow, which is a reflection of the negative relationship between reporting on environmental, social, and economic sustainability.

The results of the study show that sustainability reporting has a major impact on the corporate

profitability management of deposit money banks listed in Nigeria.

The conclusions of the analysis led to the following suggestions and recommendations being made:

- i. In order to lessen earnings management, management should strongly enforce compliance with sustainability reporting, particularly economic sustainability reporting, given a favorable link with discretionary accruals.
- ii. Reports on social and economic sustainability have a detrimental correlation with atypical levels of operating cash flows, whereas reports on environmental sustainability have a positive correlation. Management should concentrate on environmental sustainability reporting in order to achieve maximum compliance with the Global Reporting Initiatives (GRI) disclosure criteria as stated in its sustainability guidelines.

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