
Effect of Corporate Sustainability Reporting on Financial Performance of Quoted Deposit Money Banks in Nigeria

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Abstract

Corporate sustainability reporting (CSR) has become an essential tool for conveying a company's commitment to economic, social, and environmental obligations in light of the growing worldwide concern for sustainable development. Therefore, the study looked at how corporate sustainability reporting affected the financial performance of Nigerian quoted deposit money banks. The study used an ex-post facto research methodology, and the population consisted of all thirteen (13) deposit money institutions that were listed on the Nigerian Exchange Group as of December 31, 2023. The sample size was determined using the census sampling technique. The study's secondary data came from the annual reports of Nigeria's deposit money institutions between 2013 and 2024. The Economic, Social, and Environmental (EES) Index, which was modified from the ESE Disclosure Index, was used to collect data using content analysis. The study revealed that the return on asset of quoted deposit money banks in Nigeria is negatively impacted by both environmental and economic disclosure (ECD). However, social disclosure has a significant positive impact on quoted deposit money banks return on assets in Nigeria. Regulatory organizations including the Financial Reporting Council of Nigeria (FRCN), the Nigerian Exchange Group (NGX), and the Central Bank of Nigeria (CBN) ought to tighten regulations and enforce adherence to sustainability reporting standards. Consistency, comparability, and transparency will be ensured by making such disclosures mandatory, with precise measurements and standard frameworks like the Sustainability Accounting Standards Board (SASB) or the Global Reporting Initiative (GRI). Economic, social, and environmental (ESE) factors should be incorporated into banks' long-term strategy planning and fundamental business operations. Financial performance, stakeholder confidence, and brand reputation can all be improved by this integration.

Keywords: Economic Disclosure, Environmental Disclosure, Social Disclosure, Return on Asset

DOI: <https://doi.org/10.5281/zenodo.19913471>

Introduction

A company's commitment to sustainable development, ethical practices, and accountability to a wide range of stakeholders, including investors, regulators, customers, and the community at large, is reflected in Corporate Sustainability Reporting (CSR), which is the process by which organizations disclose information on their environmental, social, and governance (ESG) performance in addition to their financial performance (Global Reporting Initiative [GRI], 2020). Particularly for financial institutions functioning in intricate and regulated contexts like Nigeria, corporate social responsibility (CSR) has transformed from a voluntary endeavor to a strategic imperative. Corporate Sustainability Reporting (CSR) is built upon the tripartite pillars of economic, social, and environmental disclosures, collectively known as the "triple bottom line" (Elkington, 1997). Organizations, such as Deposit Money Banks (DMBs), are able to convey their

sustainability practices and impacts beyond conventional financial indicators thanks to these disclosures. These three factors are essential for assessing the wider impact of banks and their contribution to sustainable development in Nigeria, where social inequality, environmental degradation, and financial instability continue to be major issues (GRI, 2020; CBN, 2012).

The reporting of a business's direct and indirect financial contributions to its stakeholders and the overall economy is known as economic disclosure. Revenue generation, employee remuneration, local procurement, infrastructure improvements, tax payment, and support for local economic growth are all covered (GRI, 2020). Given their importance in financial intermediation, job creation, and national growth, economic disclosure is especially important for quoted DMBs in Nigeria. These disclosures indicate fiscal discipline and openness, both of which are critical for regulatory and investor trust. Olayinka & Adefolami (2021) claim that Nigerian banks that provide thorough economic disclosures typically gain the favor of stakeholders, which might enhance their market value and financial performance.

Labor practices, human rights, employee welfare, gender diversity, training and development, community engagement, and customer satisfaction are important facets of social disclosure, which includes information on how an organization handles relationships with employees, customers, suppliers, host communities, and society at large (Khan et al., 2023). Due to growing stakeholder awareness and legislative requirements for inclusive and moral corporate practices, social disclosure has become more significant in Nigeria's banking industry. As part of banks' social obligations, the Central Bank of Nigeria's Sustainable Banking Principles place a strong emphasis on community investment, gender equity, and financial inclusion (CBN, 2012). Quoted DMBs can strengthen their reputation, foster trust, and lower social risk through effective social disclosure, all of which can benefit their long-term financial success (Uwuigbe et al., 2024).

Reporting on an organization's environmental footprint, including energy use, emissions, waste management, resource conservation, and green finance programs, is known as environmental disclosure. Stakeholders are expecting financial institutions to report on their environmental effect and sustainability initiatives as environmental deterioration and climate change become more pressing issues (Michelon et al., 2025). Despite not being direct polluters, banks have a big impact on the environment through their lending and investing choices. Banks' voluntary environmental disclosure shows leadership and accountability in Nigeria, where environmental legislation and enforcement are comparatively lax (Akinpelu et al., 2023).

Because they make investment, financial intermediation, and capital mobilization easier, deposit money banks are essential to economic growth. However, their activities have far-reaching effects on the environment and society, from social inclusion and ethical lending practices to energy consumption and electronic trash. As a result, there is a growing expectation that banks report on their social and environmental effect in addition to financial results (Uwuigbe et al., 2024). Although resource-based perspectives, legitimacy theory, and stakeholder theory provide the theoretical foundation for Corporate Sustainability Reporting (CSR), the actual connection between sustainability reporting and financial performance is still up for discussion and empirical research. Strong sustainability reporting, according to some academics, improves a company's reputation, investor confidence, and operational effectiveness, all of which contribute to better financial success (Al-Hazaimah et al., 2014; Khan et al., 2023).

Climate change, ozone layer depletion, pollution, desertification, various types of emissions, loss of biodiversity, rising rates of poverty, inequality, hunger, and a host of other problems that are harmful to human existence are among these EES reporting issues and challenges (Sanusi & Sanusi, 2019; Abdulsalam & Babangida, 2020; Tihamiyu, & Oyekunle, 2021). A genuine triple bottom line reporting performance and disclosure practice is necessary to get out of this predicament. Practically speaking, regulatory guidelines

like the Financial Reporting Council's Code of Corporate Governance (FRCN, 2018) and the Central Bank of Nigeria's Sustainable Banking Principles (CBN, 2012) are putting increasing pressure on quoted Deposit Money Banks (DMBs) in Nigeria to incorporate sustainability considerations into their core strategies. Despite these initiatives, sustainability reporting is still uneven, disjointed, and mostly surface-level, with the majority of disclosures concentrating on marketing-driven or charitable tales rather than quantifiable social and environmental effects (Uwuigbe et al., 2024; Nzekwe et al., 2021). Furthermore, corporations frequently embrace voluntary standards like the Global Reporting Initiative (GRI) with varied degrees of rigor, and Nigeria lacks a consistent framework for sustainability reporting. This reduces the value of sustainability reporting for stakeholders including investors, regulators, and the general public and complicates cross-bank comparison. The stated advantages of transparency and stakeholder involvement are thereby undermined since many stakeholders have doubts about the validity and dependability of CSR disclosures.

The major objective of the study is to evaluate the effect of corporate sustainability reporting on financial performance of quoted deposit money banks in Nigeria. Other specific objectives are to:

- i. Evaluate the effect of economic disclosure on return on asset of quoted deposit money banks in Nigeria;
- ii. Investigate the effect of environmental disclosure on return on asset of quoted deposit money banks in Nigeria; and
- iii. Examine the effect of social disclosure on return on asset of quoted deposit money banks in Nigeria.

The following hypotheses have been formulated:

H01: Economic disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria.

H02: environmental disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria.

H03: Social disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria.

Review of Related Literature

Conceptual Framework

Three proxies of corporate sustainability reporting economic disclosure (ECD), social disclosure (SOD), and environmental disclosure (END) represent independent variables in this study's conceptual framework, while a proxy return on asset (ROA) serves as a dependent variable with firm size control variables.

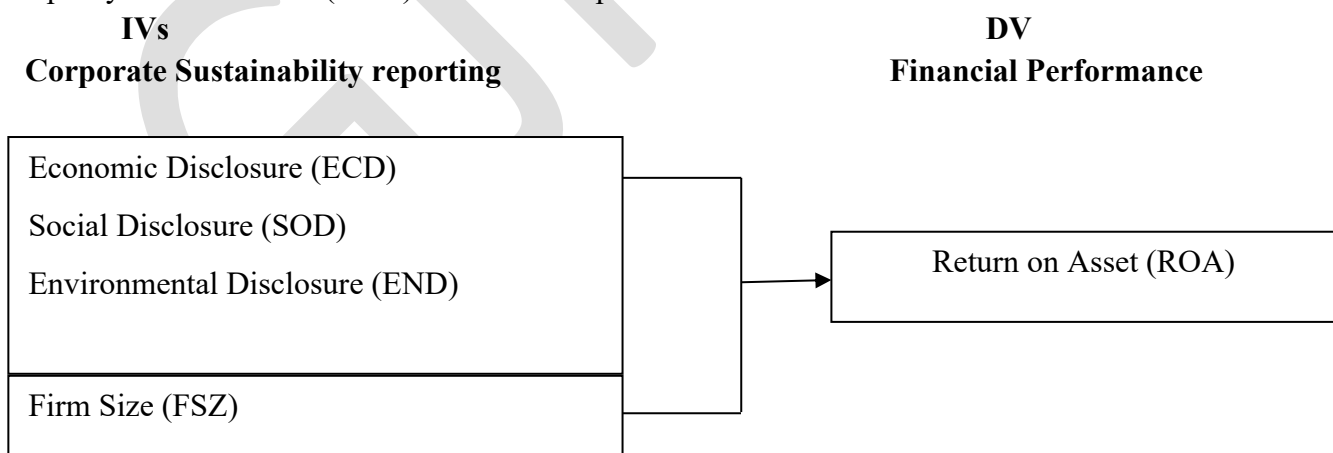


Figure 1: Adapted Conceptual Framework of the Study (Acar & Temiz, 2020)
Researcher's Compilation, 2025

Concept of Corporate Sustainability Reporting

Corporate Sustainability Reporting (CSR), sometimes referred to as environmental, social, and governance (ESG) reporting or sustainability disclosure, is the process by which businesses inform stakeholders about their economic, social, and environmental performance and effects. Environmental preservation, social responsibility, human rights, employee relations, anti-corruption measures, and general governance framework are all included. Due to stakeholder expectations, regulatory pressures, and the growing awareness of the long-term advantages of sustainable practices, corporate sustainability reporting is becoming more popular in Nigeria, particularly among quoted deposit money institutions. The Global Reporting Initiative (GRI) states that sustainability reporting promotes stakeholder trust and enhances corporate reputation by assisting businesses in demonstrating accountability and transparency (GRI, 2021). The majority of quoted banks on the Nigerian Exchange (NGX) have included some kind of corporate social responsibility (CSR) in their annual reports since the Central Bank of Nigeria (CBN) required Nigerian banks to incorporate sustainability into their core business strategies through its Sustainable Banking Principles (2012), which emphasize environmental and social risk management, human rights, financial inclusion, and sustainability reporting (Michelon et al., 2025).

Concept of Economic Disclosure

Finding and measuring the intangible value held by socially and ecologically conscious businesses with strong governance practices is the fundamental idea behind environmental and social governance (ESG) disclosure—economic sustainability performance. Managers who publish their ESG practices can lower the company's exposure to future risks in accordance with the theories of stakeholders, agencies, and information asymmetry. This, in turn, provides value for investors and other stakeholders with long-lasting business models. The actual economic impact that a business has on its surroundings is known as economic disclosure. This is sometimes mistaken for being limited to the internal profit generated by a business enterprise or firm, which is nonetheless a crucial starting point for the calculation. Therefore, unless the "profits" of other entities are included as a social gain, an authentic triple bottom line reporting strategy cannot be understood as essentially standard corporate accounting income plus social and environmental impacts (Nzekwe et al., 2021).

Concept of Social Disclosure

According to Adegboyegun et al. (2020), social disclosure is the arrangement of a corporate organization's social responsibility principles, social responsiveness processes, policies, programs, and concrete results in connection to the firm's social interactions. A concept that highlights a company's obligations to many stakeholders, including workers and the community at large, in addition to its customary obligations to financial shareholders is known as social disclosure. As a result, companies with strong social performance find it easier to recruit qualified workers. Therefore, the corporation should be socially responsible and attentive to social issues in order to foster trust and loyalty toward its consumers, employees, and society. Product responsibility, community, human rights, diversity and opportunity, employment quality, health and safety, and training and development are all indicators of a company's social responsibility (Guthrie & Parker, 1989). Consumer goods companies who participate in social disclosure show their dedication to moral corporate conduct and the well-being of the community. Their reputation and brand image are improved by such transparency. In addition to fostering trust among stakeholders, including as customers, employees, investors, and the local community, a positive public perception can boost brand awareness, promote consumer loyalty, and possibly boost sales. Strong social responsibility programs are often seen favorably

by investors since they demonstrate a dedication to long-term sustainable practices, which can boost investor confidence (Iglesias et al. 2019).

Concept of Environmental Disclosure

Environmental disclosure is a system that evaluates a company's performance based on its economic practices, social responsibility, and environmental effect, according to Alsayegh et al. (2020). They stress that triple bottom line reporting is a comprehensive strategy that considers the company's social impact on different stakeholders, its obligation to the environment, and the efficacy of its governance mechanisms. Triple bottom line reporting is defined by the Global Reporting Initiative (GRI), a well-known sustainability reporting standard, as the three interrelated pillars that include social, environmental, and economic aspects. According to GRI (2016), triple bottom line reporting offered information about a company's social impact on stakeholders, its management of environmental risks and opportunities, and its economic success.

A company's long-term financial success can be impacted by a number of non-financial aspects, including social, economic, and environmental disclosure (Mallin et al., 2013). They contend that social and economic aspects, such as environmental hazards, social issues, and economic practices, as well as environmental reporting, are crucial markers of a business's capacity to control risks, improve its reputation, and keep its operating license. Environmental disclosure is a framework that integrates social and environmental concerns into ownership and investment decision-making processes, according to the United Nations Principles for Responsible Investment (UN PRI) (United Nations, 2020). This definition stresses the incorporation of sustainability elements into the investing process and the significance that environmental disclosure considerations play in the investment business.

Concept of Financial performance

Financial performance is the performance of an obligation in a way that absolves the performer of all contractual obligations. Lebas (2012) argued that performance goals should be synonymous and defined firm performance as the level of effort a company makes to accomplish its objectives. Efficiency and effectiveness should be part of a company's performance. Efficiency, as measured by the ratio of output to input, refers to performing things correctly. Effectiveness is defined as "doing the right thing," which is a rather nebulous, non-quantitative term primarily focused on accomplishing goals. In addition to providing managers with information, firm performance measurement serves as a more effective means of assessing organizational value and long-term competitiveness. A subjective indicator of a company's ability to employ resources from its main line of business and produce income is known as firm performance. This phrase can be used to compare similar companies within the same industry or to compare industries or sectors collectively. It is also used as a broad indicator of a company's overall financial health during a specific time period. A company's capital structure, size, growth, market discipline, risk, and reputation all affect its profitability (Ali and Rizwan, 2020). Ratio analysis is used to measure corporate profitability. Ratios like gross profit margin (GPM), net profit margin (NPM), operating expense ratio (OER), and so forth are examples of profitability in proportion to sales. However, measures like return on asset (ROA), return on equity (ROE), and Tobin's Q (T-Q), among others, are part of profitability in connection to investment, which largely supports a company's efficiency and performance (ICAN, 2009; Pandey, 2012; Razaq et al., 2023).

Theoretical Review

Social Contract Theory

Reddy and Gordon (2010) introduced the concept of social contract theory, which emerged in the 17th century as a result of man living in the state of nature. Before this time, there were neither governments nor laws to regulate human behavior, so hardships, cruelty, and injustice in society led to the development of

social contract theory. Men were forced to sign two contracts, the Pact of Unionis and the Pact of Subjectionis, in order to get over these obstacles. While the pact of subjection suggests that people banded together and promised to obey an authority in exchange for the authority guaranteeing the protection of everyone's life and property, the pact of unionis suggests that people sought protection of their lives and property and as a result, a society where people agreed to respect each other and live in peace was formed (Lantos, 2001).

According to social benefit theory, banks should contribute to the welfare of the host communities. Companies don't function in a vacuum. As a result, CSR requires that all stakeholders be considered. Banks are expected to provide CSR that could assist all societal interest groups and to take into account the welfare of the host communities. Reddy and Gordon (2010) define a social contract as "a set of rules and assumptions about behavioral patterns among the various elements of society." The social contract theory is predicated on the idea that all parties involved, not just shareholders, have a right to be concerned about the decisions and effects of corporations (Freeman, 1984). Customers, workers, communities, authorities, and the environment are some of these stakeholders. Another presumption is that a company's legitimacy is strengthened in the eyes of the public and authorities when it engages in CSR and discloses sustainability initiatives. This presumption implies that CSR reporting for Nigerian banks can improve their standing, win over investors, and guarantee ongoing regulatory support (Ezejiofor & Olise, 2021).

Stakeholder Theory

R. Edward Freeman introduced the idea of stakeholder theory in 1984. According to his definition, a "stakeholder" is a person who can influence or be impacted by a business in achieving its goal (Freeman, 1984). According to this theory, a company's goal is to generate as much value as possible for all of its stakeholders. Therefore, in order for a corporation to prosper and endure over time, it must maintain alignment between the interests of its suppliers, customers, employees, communities, and shareholders. The goal of every business is to produce value for all stakeholders, according to stakeholder theory, which focuses more on a company and its surroundings. Any company should focus on increasing the value of its stakeholders rather than just maximizing profits. The theory also contends that a company's ability to communicate and create a business plan that effectively manages its relationships with stakeholders is essential to its financial success (Brammer *et al.* 2006).

Theory relevant to the study

Because it explains why banks either freely or obligatorily disclose non-financial information to satisfy stakeholder expectations and prevent reputational damage, social contract theory is the most appropriate anchor for this study. Explains the purpose of sustainability reporting by banks offers a framework for comprehending how financial results are impacted by CSR initiatives. Conforms to legal frameworks such as the Sustainable Banking Principles of the CBN reflects the fact that stakeholder impact is substantial and multifaceted in Nigerian banking operations.

Empirical Review

Maryam *et al.* (2025) assesses the impact of sustainability reporting on the financial results of 26 Nigerian listed consumer products companies. The study used a correlational research approach, and secondary data was gathered from the companies' annual reports and accounts over a ten-year period (2009-2018). The data was analyzed using the multiple regression technique, and post-estimation tests and diagnostic checks were performed. The findings demonstrate that social success significantly improves financial performance. Similarly, the findings indicate that financial performance is significantly improved by environmental

performance. Nonetheless, the findings indicate that financial performance is significantly impacted negatively by economic performance.

Tomomewo *et al.* (2024) investigated how Nigerian deposit money banks' financial performance is affected by sustainability disclosures. All of Nigeria's Deposit Money Banks (DMBs) were included in the population, and 11 listed DMBs were judiciously sampled using an ex post facto research design. Panel regression analysis was used to examine the data gathered from the financial reports of the sampled banks over a ten-year period (2009–2018). It was discovered that DMBs in Nigeria did not consider sustainability reporting as an important component of annual financial statements, DMBs considered governance to be synonymous with sustainability reporting, there were a positive and significant effects of LNSIZE on dividend per share and profit before tax of deposit money banks in Nigeria and that among the sustainability variables, it was only governance reporting that shows significant effects on financial performance of DMBs as measured by dividend per shares. The study, therefore, concluded that sustainability reporting has no significant effect on financial performance of deposit money banks in Nigeria.

Ibrahim and Onyekachi (2024) investigated the effect of corporate sustainability reporting (CSR) on the financial results of a few Nigerian traded oil and gas companies. The study design used was ex post facto. The population of the twelve (12) oil and gas companies in Nigeria that were mentioned was used to determine the sample size of seven (7) firms. During the sample procedure, a judgmental approach was used. Over a ten-year period (2010-2019), the study examined secondary data from the annual reports of the mentioned oil and gas companies in the Nigeria Stock Exchange fact books of official listings. The study used STATA 13.0 statistical software to analyze data using the Multiple Regression Model. Analysis of the results showed that the financial performance of Nigerian oil and gas companies is strongly impacted by CSR charity donation expenditures. The financial performance of Nigerian oil and gas companies was found to be significantly impacted by CSR spending on education.

Bani-Khaled *et al.* (2023) examined the correlation between Jordanian commercial banks' financial and non-financial performance from 2008 to 2018 and their corporate sustainability reporting (CSR) expenditures. The study sample consisted of 13 commercial banks, representing all Jordanian commercial banks listed on ASE. The return on equity (ROE), return on assets (ROA), and Tobin's Q model have a statistically significant negative relationship with CSR expenditure, while the market stock price (MSP) has a positive but not statistically significant relationship. These findings indicate that there is a positive, statistically significant relationship between CSR expenditures and financial performance. Additionally, the study discovered a statistically significant positive correlation between CSR spending and non-financial performance, as measured by total training expenditures and total deposits in Jordanian commercial banks.

Ademola and Ajao (2023) assessed the effect of corporate sustainability reporting on Nigerian money deposit banks' profitability. Four banks were chosen as a sample for this study, and secondary data was used. Donations to health, education, social welfare, and environmental protection served as stand-ins for business sustainability reporting, the study's independent variable, and profit after tax was used to gauge profitability. The panel OLS (fixed effect) regression model is used in this study, and E-view 9 is used for analysis. The study also found that, with the exception of corporate sustainability reporting on health and social welfare, which has no discernible impact on bank profitability, corporate sustainability reporting on education and environmental protection significantly affects the profitability of the chosen money deposit banks.

Methodology

Because the event under investigation has already happened and been documented as historical data, the study uses an ex post facto research design. Since the design's goal is to examine the impact of variables and

estimate the impact of the independent variable on the dependent variable, it was selected for this study due to its alignment with the research objectives. The fourteen (14) deposit money banks listed on the Nigerian Exchange Group (NGX Group) as of December 31, 2024, make up the study's population. The sample size for the study was thirteen (13) deposit money banks listed on the Nigeria Exchange Group as of December 31, 2024. To determine the sample size, the study uses a filtration sampling technique. The following are the filter criteria for the financial sector companies that were part of the study: (1) A bank must have been quoted on the Nigerian Exchange Group (NEG) floor at least a year prior to Nigeria's adoption of IFRS in 2012; (ii) A bank's shares must be traded on the Nigerian Exchange Group's floor both during and after the study's covered periods. The sample size for this study consists of thirteen (13) banks, as shown in appendix B. Jaiz Bank was excluded based on the criteria. The study's secondary data came from the annual reports of Nigeria's deposit money institutions between 2013 and 2024. Content analysis served as the data gathering approach (e.g. Al-Dhamari et al., 2022; Elaigwu et al., 2022) using the Economic. Table 3.1 below displays the Environmental and Social (EES) Index, which was modified from (GRI; Ahmad, 2017; Haniffa & Cooke, 2005; Osazuwa et al., 2017; Sadou et al., 2017). To determine the optimal estimation method between the pooled and robustness random effect models for this study, the study used panel regression analysis using descriptive statistics, Pearson correlation (correlation matrix), Shapiro-Wilk test for normality, Variance Inflation Factor (VIF) for multicollinearity, Breusch-Pagan/Cook-Weisberg test for heteroskedasticity, Breusch and Pagan Lagrangian Multiplier test for random effects, and Hausman Specification Test.

Model Specification

This study's dependent variable is financial performance as determined by return on assets (ROA). company size, leverage, and company age are the control variables, and corporate sustainability reporting as measured by Economic Disclosure (ECD), Social Disclosure (SOD), and Environmental Disclosure (END) is the independent variable. The following is a specific functional relationship that was taken from Olaoye and Olaniyan (2022), Azeez et al. (2019), and Agubata et al. (2021):

Functionally, $ROA = f(ECD + SOD + END + FSZ)$

The econometrically, the model is stated thus:

MODEL: $ROA_{it} = \alpha + \beta_1 ECD_{it} + \beta_2 SOD_{it} + \beta_3 ENDR_{it} + \beta_4 FSZ_{it} + \epsilon_{it}$

Where:

ROA = Return on asset

ECD = Economic Disclosure

SOD = Social Disclosure

END = Environmental Disclosure

FSZ = Firm Size

LEV= Leverage

FAGE= Firm Age

α = intercept/constant

it = Firm i at time t

ϵ = error term

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 = the parameters estimate

Variable Measurement and Justification**Table 1:** Variables Measurement and Justification

Variables	Type	Measurement and Justification
ROA	Dependent	Measured as net income divided by total assets (Agubata <i>et al.</i> 2021; Atanda <i>et al.</i> 2021; and Nitika & Madhumathi, 2022).
Economic Disclosure (ECD)	Independent	ECD – represents disclosures that are related to the economic welfare of the sampled firms, and it is measured as corporate sustainability reporting above. (Ijaz & Naqvi, 2023; Yahaya & Lamidi, 2021).
Environmental Disclosure (END)	Independent	END – represents environmental disclosures using same measurement as above (Oba, 2023).
Social Disclosure (SOD)	Independent	SOD – represents social disclosures using same measurement as above. (Hussain <i>et al.</i> , 2019).
Firm Size (FSZ)	Control	Log of total assets. Shhu and Jibril (2012).

Source: Researcher's Compilation 2025

Results and Discussion**Descriptive Statistics**

Table 2 Summarises the descriptive statistics of the entire data set.

Variables	Obs	Mean	Std. Dev.	Min	Max
ROA	156	0.071	0.114	-0.443	0.368
ECD	156	0.072	0.056	0	0.6
SOD	156	0.108	0.044	0.01	0.2
END	156	0.093	0.066	0	0.6
FSZ	156	7.734	0.752	5.506	8.872

Source: Researcher's Computation using STATA 17 software (2025)

The descriptive statistics revealed that during the study period, corporate sustainability reporting as measured by Economic Disclosure (ECD), Social Disclosure (SOD), Environmental Disclosure (END), and firm size (FS) had positive mean values, ranging from 0.072 for ECD, 0.108 for SOD, 0.093 for END, and 7.734 for FS. Below is a discussion of the descriptive analysis's specifics.

The return on asset (ROA) has a minimum value of -4.443, a maximum value of 0.368, and a mean value of 0.072, which falls between the minimum and maximum values and indicates a good spread for the time under study, according to Table 2. The table also showed that ROA had a standard deviation of 0.114, which is higher than the mean and suggests that it grew significantly throughout the reviewed period.

Economic disclosure (ECD) has a minimum value of 0, a maximum value of 0.6, and a mean value of 0.072, which falls between the minimum and maximum and indicates a good spread for the time under study, according to Table 2. Additionally, the data showed that ECD had a standard deviation of 0.056, which is lower than the mean and suggests that it grew slowly during the reviewed time.

The Social Disclosure (SOD) has a minimum value of 0.01, a maximum value of 0.2, and a mean value of 0.108, which is within the minimum and maximum values and indicates a good spread for the time under study, according to Table 2. Additionally, the data showed that SOD had a standard deviation of 0.044, which is lower than the mean and suggests that it grew slowly during the reviewed time.

Environmental Disclosure (END) has a minimum value of 0, a maximum value of 0.6, and a mean value of 0.093, which falls between the minimum and maximum and indicates a good spread for the time under study, according to Table 2. Additionally, the data showed that END had a standard deviation of 0.066, which is lower than the mean and suggests that it grew slowly during the reviewed time.

According to Table 2, the firm size (FSZ) has a minimum value of 5.506, a maximum value of 8.872, and a mean value of 7.734. These values fall between the minimum and maximum values, suggesting a good spread during the study period. Additionally, the data showed that FSZ had a standard deviation of 0.752, which is lower than the mean and suggests that it grew slowly during the reviewed time.

Normality Test (Shapiro Wilk)

Table 3: Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
ROA	156	0.950	5.523	3.865	0.000
ECD	156	0.602	44.445	8.580	0.000
SOD	156	0.960	4.390	3.345	0.000
END	156	0.630	41.247	8.411	0.000
FSZ	156	0.898	11.285	5.480	0.000

Source: Researcher’s Computation using STATA 17 software (2025)

The normality test using Shapiro-Wilson is shown in Table 3 above. The dependent variable is a proxy return on asset (ROA) with control variables of Firm Size (FSZ), and the independent variables are Economic Disclosure (ECD), Social Disclosure (SOD), and Environmental Disclosure (END). The data must be either asymmetrically (abnormally) distributed with a p-value of less than or equal to 0.05 around the mean, or symmetrically (normally) distributed with a p-value greater than 0.05. The p-value of 0.000 indicates that the variables in the table are not regularly distributed.

Test for Autocorrelation

Table 4 presents the result of the Wooldridge test for serial correlation.

Wooldridge test for autocorrelation in panel data	
H0 =	no first-order autocorrelation
F(1, 9) =	22.54
Prob > F =	0.000

Source: Researcher’s Computation using STATA 17 software (2025)

The Wooldridge test for serial correlation is significant at 0.000 indicating the presence of first-order autocorrelation as shown in Table 4 above.

Pearson Correlation

The Pearson Correlation test coefficient for multicollinearity among the study's independent variables is displayed below. According to Gujarati et al. (2012), the decision rule is to reject the existence of multicollinearity in the model if no two independent variables correlate above 0.8 and to accept the presence of multicollinearity among the independent variables if the correlation is greater than 0.8.

Table 5 Correlation Test

Variable	ROA	ECD	SOD	END	FSZ	LEV	FAGE
ROA	1.000						
ECD	0.026	1.000					
SOD	-0.050	0.143	1.000				
END	-0.013	-0.016	0.315	1.000			
FSZ	-0.091	-0.208	0.318	0.156	1.000		

Source: Researcher's Computation using STATA 17 software (2025)

The degree of relationships between the proxies of an independent variable and the dependent variable is ascertained via the correlation matrix. In order to determine whether the model has a multicollinearity issue, it is also utilized to demonstrate whether there are correlations between the proxies of independent variables itself. The correlation value of 0.026 in Table 5 indicates a 2% positive and weak association between economic disclosure (ECD) and return on asset (ROA) of quoted deposit money banks in Nigeria. According to the correlation coefficient of -0.050, the table also reveals a 5% negative and weak association between social disclosure (SOD) and return on asset (ROA) of listed deposit money institutions in Nigeria.

Additionally, the correlation value of -0.013 in the table indicates a 1% negative and weak association between environmental disclosure (END) and return on asset (ROA) of quoted deposit money institutions in Nigeria. Additionally, the data revealed a weak and 9% negative link between the return on asset (ROA) of listed deposit money banks in Nigeria and business size (FSZ), with a correlation coefficient of -0.091. Lastly, Gujarati (2003) suggests that the interactions between proxies of independent variables themselves are modest because all coefficients fall below the threshold of 0.80, indicating the absence of multicollinearity in the model.

Variance Inflation Factor (VIF)

Table 6: Variance Inflation factor

Variable	VIF	1/VIF
SOD	1.28	0.781
ECD	1.20	0.830
END	1.12	0.894
FSZ	1.10	0.905
Mean VIF	1.18	

Source: Researcher's computation using STATA 17 software (2025)

VIF is an additional collinearity test that indicates the presence of multicollinearity if the VIF is greater than 10 (Gujarati et al. 2012). The model's lack of collinearity is confirmed by the table's VIF of 1.31. Additionally, the inverse VIF 1/VIF is less than 1, indicating that collinearity is not present.

Heteroscedasticity Test Results

If the model's p-value is less than or equal to the critical p-value of 0.05, the null hypothesis of constant variance should be rejected; if the p-value is greater than the critical value of 0.05, the hypothesis should be accepted.

Table 7: Heteroscedasticity test

Type of test	Chi2	Prob Chi2
Heteroskedasticity	5.33	0.210

Source: Researcher's computation using STATA 17 software

The heteroskedasticity test utilizing the Breusch-Pagan/Cook-Weisberg approach to ascertain the stability of the residual variance in the model was displayed in Table 7. If the model's p-value is less than or equal to the critical p-value of 0.05, the null hypothesis of constant variance should be rejected; if the p-value is greater than the critical value of 0.05, the hypothesis should be accepted. The null hypothesis of constant variance is rejected since, according to the table, the model's p-value is 0.210, which is more than 0.05. This implies that

the alternative which implies presence of heteroskedasticity in the model is accepted. This indicates low predicting value. This make the use of OLS not appropriate thus the need for search of appropriate estimation technique.

Pooled Effect Vs Random Effects Model

Selecting the optimal panel approach is the first step in the panel data analysis process. The Breusch-Pagan Lagrangian Multiplier test for random effects is used to determine whether to employ the pooled effect model or the random effect model. The presence of unobserved effects in the random effect model is investigated using the Lagrangian Mutiplier test. The null hypothesis is rejected and the random effects model of panel data is selected if the test's computed value is more than the critical value, or significant of chi-square, or vice versa.

Breusch-Pagan Lagrangian Multiplier Test

Table 8: Breusch and Pagan Lagrangian multiplier test

Variable	Chi2	P-Chi2
ROA	65.36	0.000

Source: Researcher’s computation using STATA 17 software

The decision rule of Breusch-Pagan Lagrangian Multiplier Test is that if the P-value is equal to and less than 0.05, the random effect model is appropriate if otherwise, the pooled ordinary least square regression is appropriate. Table 8 showed that the calculated Breusch-Pagan Lagrangian Multiplier test with Chi2 value of 65.36 and the corresponding probability of (0.009) is equal to the critical value for all the models Prob Chi2=0.000), thus the null hypothesis is rejected. The significance of the chi-square of the Lagrangian Multiplier test signifies that the variance of the random effect model is not zero (0). Hence, Random Effect Regression Model (REM) is more suitable than pooled ordinary least square regression.

Hausman Specification Test

The null hypothesis, which claims that the model is random (not systematic), is rejected if the p-value for the Hausman test is equal to or less than 0.05, indicating that fixed effect is suitable for the investigation. On the other hand, null is accepted and the proper estimate model is random if the p-value is greater than 0.05.

Table 9: below presents the result of a Hausman specification test conducted.

Type of test	Chi2	P-Chi2
Hausman Test	23.41	0. 684

Source: Researcher’s computation using STATA 15 software (2025)

From Table 9, the Chi² p-value is 23.41 and p-value of 0. 684 which is greater than 0.05 thus the random model is used for the study.

The Results of Random Effect Regression Model

Table 10: Random Effect Regression Model Conducted

Variable	Coefficients	z-value	Prob.
ECD	-0.025	0.27	0.790
SOD	0.098	0.44	0.662
END	-0.028	0.37	0.713
FSZ	-0.068	-4.39	0.000
_Cons.	0.595	4.70	0.000
R-sq overall	0.132		
Wald Chi2	9.20		
Prob. >Chi2	0.056		

Note: ***1% and **5% Significance levels

Source: Researcher’s Computation using STATA 17 software

According to Table 10 above, the combined effect of Economic Disclosure (ECD), Social Disclosure (SOD), Environmental Disclosure (END), and Firm Size (FSZ) predicts a 13% variation in return on asset (ROA). The model is appropriate for the study, as indicated by the Wald chi² value of 9.20 and the Prob>chi of 0.056. This showed that the independent variables are appropriately incorporated and utilized, and the study's model is fit.

Test of Hypotheses

To examine the effect of corporate sustainability reporting and financial performance of quoted deposit money banks in Nigeria, the formulated hypotheses were tested using a random effect regression model.

H₀₁: Economic disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria.

Economic disclosure has a negligible negative impact on the return on asset of listed deposit money banks in Nigeria during the period under review, according to the results in Table 10 above, where ECD has a coefficient of -0.025 and the associated p-value of 0.790. This leads to the acceptance of the null hypothesis, which states that economic transparency has no appreciable impact on the return on asset of quoted deposit money banks in Nigeria.

H₀₂: Social disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria. According to Table 10, social transparency has a negligible positive impact on the return on assets of listed deposit money banks in Nigeria over the period under consideration, with a coefficient of 0.098 and a corresponding p-value of 0.662. This leads to the acceptance of the null hypothesis, which states that social transparency has no appreciable impact on the return on assets of quoted deposit money banks in Nigeria.

H₀₃: Environmental disclosure has no significant effect on return on asset of quoted deposit money banks in Nigeria.

Additionally, Table 10 demonstrated that environmental disclosure has a negligible negative impact on the return on asset of listed deposit money banks in Nigeria for the period under consideration, with a coefficient of -0.028 and a corresponding p-value of 0.713. This leads to the acceptance of the null hypothesis, which states that environmental disclosure has no appreciable impact on the return on asset of quoted deposit money banks in Nigeria.

The coefficient of -0.068 and the accompanying p-value of 0.000 in Table 10 further demonstrated that, during the period under consideration, the return on asset of quoted deposit money banks in Nigeria is significantly impacted negatively by firms size.

Summary of Findings

- i. According to the study, economic disclosure (ECD) has an insignificant detrimental impact on quoted deposit money banks return on assets in Nigeria. This implies that the return on assets of quoted deposit money banks in Nigeria will decline as economic disclosure declines.
- ii. Social disclosure (SOD) has an insignificant beneficial impact on the return on assets of quoted deposit money banks in Nigeria, according to the study. This implies that the return on assets of quoted deposit money banks in Nigeria will decline as social disclosure increases.
- iii. The study ultimately found that the return on asset of quoted deposit money banks in Nigeria is negatively impacted by environmental disclosure (END) in an insignificant way. This implies that the return on assets of quoted deposit money banks in Nigeria will decline if environmental disclosure declines.

Conclusion and Recommendations

The impact of corporate sustainability reporting (CSR) on the financial performance of Nigerian listed deposit money banks was investigated in this study. The results showed that banks' financial performance metrics, such as return on assets, are significantly impacted by sustainability reporting, especially disclosures about economic, social, and environmental (ESE) activities. According to the report, Nigerian banks that place a high priority on clear and consistent sustainability disclosures typically experience increased stakeholder trust, regulatory compliance, improved reputation, and eventually better financial results. The study's findings, however, also confirm that proactive sustainability reporting can be a competitive advantage, impacting long-term financial stability and investor decisions. Consequently, the study comes to the conclusion that corporate sustainability reporting is a strategic tool that improves deposit money banks' financial performance rather than just being an exercise in corporate social responsibility.

Recommendations

In view of the foregoing, this study recommends as follows:

- i. Regulatory organizations including the Financial Reporting Council of Nigeria (FRCN), the Nigerian Exchange Group (NGX), and the Central Bank of Nigeria (CBN) ought to tighten regulations and enforce adherence to sustainability reporting standards. Consistency, comparability, and transparency will be ensured by making such disclosures mandatory, with precise measurements and standard frameworks like the Sustainability Accounting Standards Board (SASB) or the Global Reporting Initiative (GRI).
- ii. Banks should move beyond viewing sustainability reporting as a compliance obligation.
- iii. Nigerian banks are urged to embrace globally recognized sustainability frameworks, such as the United Nations Sustainable Development Goals (UN SDGs), the Global Reporting Initiative (GRI), and the Integrated Reporting Framework (IRF). By aligning with these frameworks, banks will be able to obtain international recognition and draw in foreign partnerships and investments.

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