



SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE OF QUOTED NON-FINANCIAL FIRMS IN NIGERIA

Dr Ohiokha Godwin (ACA)¹, Wilson Osarodion Famous²

^{1,2}Edo University Uzairue, Edo State, Nigeria

Corresponding authors' email: godwin.ohiokha@edouniversity.edu.ng¹

Abstract

This study examined empirically the effect of sustainability reporting on financial performance of quoted non-financial firms in Nigeria. The study covers a period of fifteen years with sustainability being represented by economic reporting, social reporting, and environmental reporting, while financial performance is represented by return on assets and return on equity. This study adopts the ex-post facto research design, while the General Least Square (GLS) statistical technique, descriptive and correlation analysis was used to ascertain the effect of the sustainability on firm performance. The results show that reporting of economic activities has a negative effect on the performance of quoted non –financial companies in Nigeria. Reporting of social activities has no significant effect on the performance of quoted non-financial companies in Nigeria. Reporting of environmental activities has negative effect on the performance of quoted non-financial companies in Nigeria. The study recommended that management should exert more effort in disclosure of economic activities and less effort in disclosure of social activities Also, firms should strive to improve the clarity and consistency of their sustainability reporting processes. This involves ensuring that the disclosure of economic, environmental, and social activities is transparent and easily understandable for stakeholders.

Keywords: sustainability reporting, economic reporting, environmental reporting, social reporting, financial performance.

1. Introduction

Global warming and Climate change are two of the world's most pressing issues, while business activities are part of the most significant contributors to this environmental problem. Company's operations, such as environmental waste and the inefficient use of natural resources, have caused upswing in greenhouse gas emissions as a result, the ozone layer has been depleted, global warming has occurred and overall natural and environmental well-being has suffered. Thus, in the quest to address these environmental issues, the role of businesses is crucial (Damian, 2006). The increased insight concerning the subject matter by diverse members of the society has resulted in corporate reporting of environmental activities in their periodic reports, as well as a reduction in the negative impact of industrial activities on the natural environment. This consciousness has led to increase in sustainability reporting thereby the success of an organization is no more measured only by its financial performance but also by its social and sustainability impact (Davies & Okorite, 2007).

In Nigeria, there is no certain laws that guide sustainability rather what we have are guidelines issued by various agencies like the Regulation Enforcement Agency that are subject to embellishment every now and then. These guidelines are advisory in nature rather than mandatory, and because they are not mandatory, most companies tend to report sustainability activities just to enhance their corporate image (Okafor, 2018). Other independent bodies, such as Business in the Community (BITC) and the Global Reporting Initiative (GRI), have issued guidelines in an effort to establish consistency in the reporting of sustainability activities (Shuaibu, 2020). Though environmental regulation, pressure



group activities, and consumer/market consciousness are all low in emerging economies like Nigeria, national and global attention on the subject matter has drawn the concerns of companies in these countries to international best practices on sustainability issues. This clarion call has made firms operating in these jurisdictions to exert efforts in giving due attention to sustainability activities (Ezeagba, et al. 2023; Lawrence, 2022).

The quest for sustainability reporting by corporations has steadily increased in both small and large firm over the last twenty years (Smith, 2003). Firms are required to report their sustainable activities and their impact on the areas of environmental financial accounting, environmental management charges, environmental resources and materials, and environmental accounting audit, in accordance with GRI guidelines. This is crucial because corporate information disclosure policies and practices are regarded as one of the most important ways for management to control external perceptions of their organizations. Although the issue of environmental disclosure has been debated since the 1980, and empirical research on corporate firm attributes and environmental disclosure practices abounds in literature both within and outside Nigeria, there still exist varying ideas as to what influence the level of sustainability reporting (Uwalomwa, 2011).

It is not clear whether sustainability reporting engenders profitability or profitability engenders sustainability. Aforementioned is a long ending question that has sought for answer in recent times. The quest to provide answer to this vex question constitute the motivation of this study. While the relationship between sustainability reporting and financial performance has been extensively studied globally, there remains a significant gap in understanding how this relationship manifests within the context of non-financial firms in Nigeria. Existing research (Ezeagba, et.al, 2023; Lawrence, 2022; Okafor, 2018), predominantly focuses on developed economies, leaving a dearth of empirical evidence and analysis specific to the Nigerian business landscape. Thus, this paper aims to fill this gap by examining the association between sustainability reporting practices and financial performance metrics among quoted non-financial firms in Nigeria, providing insights crucial for both academia and industry stakeholders in the region.

2. Literature Review

Conceptual Review

Financial Performance

Financial performance refers to the measure of how well a firm generates revenues and manages its assets to achieve profitability and sustainable growth over time. It encompasses various quantitative metrics and indicators that assess the efficiency, effectiveness, and overall health of a company's financial operations (Venkatraman & Ramanujan, 2016). Key components of financial performance analysis typically include profitability, liquidity, solvency, efficiency, and market valuation. Profitability is a fundamental aspect of financial performance, indicating the ability of a company to generate profits relative to its expenses and investments. Metrics such as net income margin, return on assets (ROA), return on equity (ROE), and gross profit margin are commonly used to evaluate profitability (Cameron, 2018).

It includes metrics such as asset turnover ratio, inventory turnover ratio, and accounts receivable turnover ratio, which measure the effectiveness of asset management and operational efficiency. Market valuation assesses the investor perception of a company's worth and future prospects by evaluating its stock price and market capitalization relative to earnings, assets, or other financial indicators. Metrics like price-to-earnings ratio (P/E ratio), price-to-book ratio (P/B ratio), and market-to-book ratio are commonly used in market valuation analysis. Assessment of financial performance



provides valuable insights into the company's operational efficiency, profitability, financial stability, and market competitiveness. It helps stakeholders, including investors, creditors, and management, make informed decisions regarding investment, financing, and strategic planning (Owie, 2019).

Sustainability Reporting

This is an environmental accounting concept, which gained publicity after the June 1992, United National Conference on Environment and Development (UNCED) which was held in Rio de Janeiro. According to GRI (2019), sustainability reporting is the practice of measuring, disclosing and being accountable to internal and external stakeholders to achieve the goals of sustainable development. Similarly, Umoren and Ukpung (2022) define sustainability accounting as the sub-branch of accounting which handles the activities, methods and systems of the business to record, analyze and report first, the financial effects caused by environmental and social factors and second, the ecological and social effects of a defined economic system. It is not just reported generation from collected data; instead, it is a method to internalize and improve an organization's commitment to sustainable development in a way that can be demonstrated to both internal and external stakeholders. According to Akpan and Simeon (2021), by making these disclosures, companies make stakeholders aware of how they are integrating the principles of sustainable development into their organizational goals and daily operations.

Sustainability reporting represents a potential mechanism to generate data and measure the progress and contribution of companies towards global sustainable development objectives. It can also help companies and organizations measure their performance in all dimensions of sustainable development, set goals, and support the transition towards a resource-efficient and inclusive green economy (Ho & Taylor, 2007). It can be synonymous with triple-bottom-line reporting which Effiong, et.al (2019) define as a holistic framework for reporting the tripartite performance dimensions of firms. A lot of reasons have been advanced toward companies' triple bottom line reporting. Another reason is that companies believe that they should be accountable to various stakeholders on how they use the environmental, social and economic resources that have been entrusted to them (Effiong, et.al, 2019). The Nigerian Code of Corporate Governance Principle 26 advocates that the board projects companies as responsible corporate citizens by paying attention to sustainability issues. These should include social, environmental, occupational and community health and safety issues, to ensure successful business performance.

According to Effiong, et.al (2021), environmental sustainability disclosure involves the disclosure of organizations' impacts on the living and non-living natural systems. It is also concerned with the input-output mode of organizational impacts on the environment. Input has to do with material consumption and output has to do with the end product and waste emissions. Companies, through the process of environmental communication, may seek to influence the public's perception of their operations. According to the European Environmental Agency (EEA 2008), environmental reports are “the principal vehicles for company communication on the environment and a fair and credible reflection of the company's environmental activities”.

The contribution of employees to the success of any firm has made it very imperative for companies to make policies that promote the health and safety of these employees. This is to ensure that the work environment is safe and that health is guaranteed. The work environment is seen as all aspects of the design and management of the work system that affect employees' interactions with the workplace. However, there have been calls to improve the health and well-being of employees through corporate social responsibility (Effiong, et al., 2019). According to Evangelinos (2020), performance



measures can be grouped into two basic types: those that relate to results (outputs or outcomes such as competitiveness or financial performance) and those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization and innovation). This suggests that performance measurement frameworks can be built around the concepts of results and determinants. In this study, financial performance is measured in terms of return on capital employed.

Economic Reporting

This is a method used by firms to communicate to investors, stakeholders, and the general public through their annual financial statement disclosures (Amacha & Dastane, 2017). According to Aggarwal (2013), it is a system of reporting policies, procedures, and processes by which a company is guided and managed. Ebimobowei, (2011) claims that it is the process of disclosing rules and agreed procedures to resolve conflicts between stakeholders and management. It is a phrase used to explain how well organisations work and how well they perform.

Environmental Reporting

Environmental reporting is a general term that refers to corporate disclosures about the environmental consequences of their operations. Environmental transparency broadens the scope of a company's obligations beyond the traditional position of disseminating financial reports to include any of the company's environmental responsibilities. The environmental aspect of sustainability reporting is concerned with an organization's effects on living and non-living natural environments, such as habitats, land, air, and water. Environmental measures measure how well inputs (such as materials, electricity, and water) and outputs work together (e.g., emissions, effluents, waste). Success in relation to biodiversity is one of the other areas discussed. Environmental enforcement, as well as other related data such as environmental expenditures and product and service impacts (GRI, 2011). The use of the company's input and production results in a slew of environmental issues (Caesaria & Basuki, 2017). Previously, financial results were primarily concerned with the financial aspect of operations, providing investors with insight into past performance on key financial metrics. However, an organization's responsibility for the atmosphere in which it works has contributed to the advent of environmental disclosure, which accounts for human and industrial effects on the environment in addition to commenting on financial results.

Social Reporting

A social report is a multidisciplinary term that covers a wide variety of topics in business operations. The fair evaluation of and disclosure on any meaningful domain of a company's operations that have a social impact is known as social reporting (Ebimobowei, 2011). Social reporting helps to quantify the negative and positive impact of an enterprise's operations on the firm and/or those impacted by the firm (in monetary or non-monetary units); it measures social costs and benefits. The social dimension of sustainability is concerned with the effects that a company has on the social structures under which it works (GRI, 2011). With an emphasis on individuals, their interests, and desires, it is one of the three pillars of sustainability. It is considered significant because it addresses topics such as social responsibility, labour rights, community growth, and so on. Organizations must become interested in this aspect of sustainability in order to provide a good quality of life for their workers and the community in which they work, particularly for those who are less fortunate. Internal parties which receive social disclosure, such as the corporation being forced to pay attention to employee health and safety, or equal opportunity in competition between competitors. Meanwhile, the organization must enforce anti-corruption policies, anti-competitive and monopolistic practices that affect stakeholders, and product labeling for consumer health and safety to external parties (Caesaria & Basuki, 2017).



Theoretical Framework

Stakeholders Theory

This study is backed up by the stakeholders' theory as propounded by Freeman (1984). This theory is concerned with how relationships with stakeholders are managed by companies in terms of acknowledgement, transparency and accountability. The argument advocated by Freeman (1984) is that all stakeholders have the right to be treated reasonably by the organization. According to him, stakeholders comprise any group or individual who can affect or be affected by the achievement of the organization's objectives. These groups or individuals include employees, local communities, customers, suppliers, competitors, banks, investors, governments and non-governmental organizations (NGOs).

Some scholars have agreed with his position on the responsibility of the firm to a broader set of stakeholders other than shareholders, while Friedman (2002) opposes the idea. The concern of the stakeholder's theory is to ascertain which stakeholders are more relevant to the organization, and this is very vital to the management of the organization because it is believed that the success of the organization in terms of performance is dependent on the support of the relevant stakeholders (Rahman & Rahman, 2020). This view is also supported by Okafor, et.al. (2021) when they stated that stakeholders are identified by companies to ascertain which groups need to be managed to further the interest of the corporation.

More so, this theory proposes an increased level of environmental awareness which creates the need for companies to extend corporate planning to include non-traditional stakeholders to adapt to changing social demands. As stakeholders' influence becomes crucial for corporate image and comparative advantage, companies manage their stakeholder relationship by providing information often in the form of voluntary disclosures in the annual reports or on their websites. The justification is that stakeholders have something at stake as well as the power to influence the organization, including its actions, decisions, policies and goals. This theory is relevant to this study because it is premised on the notion that stakeholders expect companies to be socially and environmentally responsible so that there is a market premium in improved economic, environmental and social performance which, in turn, boost the shareholders' value. As we know, the shareholders are the major stakeholders of the organization. This study is however anchored on the stakeholders' theory as it is premised on the notion that stakeholders expect companies to be socially and environmentally responsible so that there is a market premium in improved economic, environmental and social performance which, in turn, boost the shareholders' value. As we know, the shareholders are the major stakeholders of the organization.

Empirical Review

Economic Reporting and Financial Performance

Bewley and Li (2000) investigate dynamics linked of reporting of economic activities in Canada from a non-mandatory disclosure theory standpoint. The authors' quantified sustainability reporting of 188 manufacturing companies in Canada in their yearly reports by employing the Wiseman index. A company's greenhouse gasses emission propensity (that is, environmental performance) is quantified by their industry affiliation and by whether they report their activities to the Ministry of Environment under the National Pollution Release Inventory program. The research reporting of economic activities is directly proportionate with performance.

Sarumpaet (2015) investigates the association of reporting economic activities and financial performance of selected Indonesia firms. The outcome of the study shows that reporting of economic activities has no emblematic influence on firm performance. Amaeshi, et.al. (2023) carried out research to ascertain effect of reporting of economic activities on financial performance of firm in Nigeria: a



western mimicry or indigenous practices. They examine the influence of reporting economic activities on financial performance of selected Nigerian firms. The outcome of the study revealed that reporting of economic activities has no emblematic influence on firm performance. The study concluded that firms are socially constructed show by their activities and their behaviour essentially reflect on the society in which they are embedded.

Abdullah and Ismail (2018) carry out a research work to ascertain the association reporting of economic activities and the profitability of the listed companies in Malaysia. The study adopted agency and signaling. Samples of 100 companies from the list of top companies in 2003 were selected. In order to test the hypotheses, regression tests were performed. The outcome of the study reveals that profitability has positive association with sustainability disclosure. The outcome of study reveals that profitability has positive association with reporting of economic activities in Malaysia.

Mohamed and Faouz (2014) investigate the association between reporting of economic activities and financial a sample of Tunisian companies during 2003 – 2011. The study establishes that there is a positive connection between reporting of economic activities and firm performance. Nnamani, (2023) studied effect of reporting economic activities on financial performance of listed manufacturing firms in Nigeria. Data was gathered through secondary sources. The period covered 2010 – 2022, they sampled 3 firms in the brewery sector. Expost facto research design was used. ROA and ROE were used as dependent variable while independent variables were total personal cost to total assets ratio and total equity to total assets ratio. Their finding showed that sustainability reporting has positive and significant effect on financial performance of firms studied.

Nguyen, et al. (2023) investigates the elements that affect the echelon of sustainability reporting of construction companies in Vietnam. The study reviewed a period of 2013 to 2022, data were obtained from 74 construction companies listed on the Vietnam stock souk. The levels of reporting of economic activities and influence this level was verified based on a quantitative analysis approach. The findings show, in particular that the reporting of economic activities of firms understudied upsurge performance.

Olutola (2022) carried out research to ascertain the influence of reporting of economic activities on financial-performance of quoted manufacturing companies in Nigeria for a period of eleven years. The study used information extracted from secondary sources. The outcomes of the study revealed that reporting of economic activities has a positive relationship with financial performance of quoted manufacturing firms in Nigeria. Isiaka (2023) carried a study to ascertain the relationship between reporting of economic activities and financial performance of selected African countries. The outcome of the study revealed performance has a positive relationship with reporting of economic activities. The outcomes results suggest that firms with better financial performance have more disclosures

Social Reporting and Financial Performance

Al-Tuwaijri et al., (2004) employed TRI grounded data to evaluate reporting social activities and performance. The authors quantified sustainability disclosure employing content analysis in four categories (potential responsible parties' designation, toxic waste, oil and chemical spills, and environmental fines and penalties). These disclosures are principally non-discretionary, in contrary to the discretionary disclosures which were investigated. The outcome of the study reveals that reporting of social activities positively influences performance.

Barako (2023) carried out research work to find out the determining factor of disclosure of social performance in the annual reports of Kenyan firms employing the special attributes of companies a period of 2008 to 2022. The system of statistical analysis was pooled Ordinary Least Square (OLS) with panel-corrected pooled Ordinary Least Square (OLS) and Panel-Corrected Standard Errors



(PCSEs). The findings revealed that reporting of social performance has a major impact on financial performance of firms

Aggarwal (2013) studied the impact of social performance reporting on the financial performance of listed Indian companies. By using secondary data and by employing multiple regression and correlation for the period of two years, the study finds that there is no significant association between overall reporting social performance and financial performance, however, four components of sustainability i.e. community, employee, environment and governance have significant but varying impact on financial performance.

Umoren, et al. (2015) performs a research work to ascertain social performance practices of selected companies in Nigeria. The research used a sample of 40 companies in eight sectors and two-year 2013-2014. The descriptive statistics, correlating and linear regression were employed. Their findings revealed social performance reporting led to profitability.

Utile et al. (2023) carried out a study on effect of social performance on the financial performance of listed manufacturing firms in Nigeria. The sample was drawn from ten manufacturing firms listed on Nigeria stock exchange. Expost facto design was used and random effect regression was used for data analysis. The period covered is from 2011 – 2021 and a sample of 12 was drawn out of all 87 companies in Nigeria that are of manufacturing nature and listed in NSE. They found that social performance has significant effect with financial performance. The result proves that environmental reporting has significant effect on firm financial performance.

Aluwong and Fodio, (2019) find out the influence of social performance reporting on performance firms in Nigeria. The research employ data gotten from annual audited financial report the nine selected oil and gas firms for period seven years, 2012 and 2018. The study analyzed the data using logistic regression technique. The outcome of the study reveals that profitability is directly proportionate to social performance of oil companies in Nigeria.

Ebaid (2022) carried out study to investigate the association between social performance reporting and the financial performance of quoted firms in Saudi Stock Exchange markets. The study used data collected from six-seven companies for a period of four years, 2016-2019. The outcome of the research showed that the social performance reporting of Saudi Arabian firms is largely very squat. The outcome of the research showed that financial performance is positively related with social performance reporting for the composite index or the three sub-indexes. Conversely, the positive association is not emblematic.

Olafusi, et al. (2023) carried a study to examine extent to which social performance disclosures influence financial performance of the Deposit Money Banks in Nigeria. The research covered a period of ten years, 2011–2020. The used data extracted from secondary source. The outcome of the study revealed social performance reporting has no significant relationship with financial performance of DMBs in Nigeria.

Environmental Reporting and Financial Performance

Elijido-Ten (2014) examine at the association between reporting environmental activities and firm financial performance of one hundred Australian firms. The outcome of the study suggests that reporting environmental activities positively influence financial performance of Australian firms.

Mitchell and Quinn (2021) in South Africa measured and compared the expectations of two different groups (preparers and users of environmental report). The study considered the perceived importance of reporting environmental activities, the areas that are reported on and the level of disclosure. The study found that reporting environmental activities has positive effect on performance.



Norhabibi, et al. (2015) studied the effect of the effect of reporting environmental on financial performance using the Malaysian Public Limited Companies. Non probabilistic sampling (purposive sampling) was used to get the sample of 100 companies of market capitalization for the year 2011. Data were gathered from annual reports of these companies. An environmental index was created, 10% of the total sample was selected to conduct a pilot test of ten (10) companies. ROA, EPS and ROE were used to measure performance. Spearman's correlation and multiple regressions were used for data analysis. Findings showed that there is a significant relationship between reporting of environmental activities and financial performance.

Musa, et al., (2015) carry out a study to find out sustainability disclosure of a sampled eight selected Nigerian consumer goods companies listed on the floor of the Nigeria stock exchange. Data were extracted from annual financial report of 2013. Data gathered from field were analyzed by multivariate regression technique and a single variance analysis. The outcome of their study reveals that reporting of environmental activities do not affect the lack of uniformity of the disclosures of standard leads substantially.

Ezhilarasi and Kabra (2023) carry out a research work to ascertain the connection of governance reporting environmental activities on firm performance. Disclosure scores were drawn individually, via content analysis technique. Data were extracted from annual reports from 2009–2022 using panel models analyze a sample of 177 environmentally sensitive firms in India for a period of six years. The outcome of the study reveals that reporting of environmental activities has positive effect on performance of firms.

Nnamani, et al. (2020) carried out a study on the effect of reporting environmental activities on the financial performance of listed manufacturing firms in Nigeria. Firms used for the study were chosen from the Nigerian brewery sector. Data were sourced from the financial statements of three sampled firms. Data were analyzed using the ordinary linear regression. The outcomes study revealed that reporting environmental activities has positive effect on financial performance of firms studied.

Egbunike and Tarilaye (2019) investigate effects relationship between disclosure environmental activities on performance of listed manufacturing firms in Nigeria. The period understudied was five years, 2011-2015. Data processing and testing hypotheses were performed using descriptive statistics as well as inferential statistics. The outcome of the study shows that reporting of environmental activities has a positive influenced on performance of firms understudied in Nigeria.

Kabiru (2020) investigates the relationship between reporting of environmental activities of listed cement companies in Nigeria. The study covers a period of 2013 to 2019. The data collected from evaluated GRI by divulgation index via content analysis and data run by STATA 12.0. The study employed descriptive statistics, correlations, and multiple regression technique. The outcome of the research revealed that reporting of environmental activities has a considerably relationship firm performance.

Eze (2022) carried a study grounded on the stakeholder theory to examine the association between Australian electricity companies' sustainability reporting practices and their financial performance. The research employed uses the GRI G4 sector-specific guidelines to investigate Australian electricity firms' disclosure level on sustainability on performance using multivariate regression statistical technique. The outcome of the study revealed that disclosure environmental activities have positive influence on performance of Australian electricity companies

3. Methodology



This study adopts the longitudinal and *ex-post facto* research design. Longitudinal approach will be adopted to examine the trend in environmental disclosure practices of firms in the selected more environmentally sensitive industries and the less environmentally sensitive industries. Ex-posto facto research design is a quasi-experimental study used in the examination of independent variables in retrospect for their possible influence on the dependent variable. A quasi-experimental study simply means participants are not randomly assigned (Aluwong & Fodio, 2019). This will aid the determination of the relationship between corporate firm attributes and environmental disclosure practices.

The study population consist of all the one hundred and five (105) listed firms with sub- setting in ten industries: Agriculture (5), Conglomerates (4), Construction/Real Estate (9), Consumer Goods (20), Healthcare (7), Information Communication and Technology (ICT) (9), Industrial Goods (15), Natural Resources (4), Oil and Gas (9), Services(23) firms listed on the floor of the Nigerian Exchange Group (NGX) as at 31st December, 2021. The study used the scientific method to ascertain the sample size. In estimating the sample size, Taro Yamane (1974) formula was employed. This was chosen because of its simplicity and it is considered as the most widely used scientific technique for calculating sample size. The formula is given as:

$$n = \frac{N}{1 + Ne^2}$$

Where n = the sample size

N= Population

e = level of precision (error limit on the basis of 10% confidence level).

$n = 105 / 1 + 105 (0.01)^2 = 52$ companies

Based on the above, a sample of 52 firms was randomly selected from the filtered population of 105 firms. Data will be obtained from secondary source, kept in archive over the period of this study. The data will be extracted from the annual reports and accounts of the selected firms as well as the fact book of Nigeria Exchange Group (NGX) for the period under review.

Model Specification

The research is focused primarily on global reporting initiative (GRI 3.1) and on environmental regulation details existing in Nigeria, that is, antecedent of environmental disclosure: mandatory and voluntary, testing the level of environmental disclosure with the aid of an environments disclosure index (EDI). Depending on the standard of information given to evaluate the score on each item, the environmental disclosure index is measured according to a weighted methodology. The Sustainable Development Report Guidelines for the Global Reporting Initiative (2013) indicate that 34 items are used to disclose environmental data. Environmental disclosure Index shall be calculated using the following equation for each company:

The above equation, means that sustainability disclosure practice (SDP) is a function of corporate firm performance (CP) influenced by the ownership structure (OWs).

Firm Performance-FP = f (Sustainability Reporting-SR)..... (i)

Decompose the endogenous and exogenous latent variables, that is, Company's Performance and Sustainability Reporting. The model used in this study is a modified version of Nguyen, et al. (2023).

CP. (ROA) = f (SRECODIS, ENVIDIS, SOCIDIS)..... (ii)

Firm Performance is a function of Sustainability Reporting. Equations (i) to (ii) are called functional form of the models.

$ROA_{it} = \beta_0 + \beta_1 ECODIS_{it} + \beta_2 ENVIDIS_{it} + \beta_3 SOCIDIS_{it}$ (iii)



company:

n

$$SDI_{it} = \sum_{l=1}^n \text{quantity disposed} / \text{max quantity} \quad (1)$$

$$SDP = F(\text{CFA, OWs}) \quad (2)$$

Equation (iii) is called deterministic or mathematical model. Introduce the error term or stochastic term to the models. $ROA_{it} = \beta_0 + \beta_1 ECODIS_{it} + \beta_2 ENVIDIS_{it} + \beta_3 SOCIDIS_{it} + \mu \dots \dots \dots (iv)$

$$ROE_{it} = \beta_0 + \beta_1 ECODIS_{it} + \beta_2 ENVIDIS_{it} + \beta_3 SOCIDIS_{it} + \mu \dots \dots \dots (v)$$

$$COMP_{it} = \beta_0 + \beta_1 ECODIS_{it} + \beta_2 ENVIDIS_{it} + \beta_3 SOCIDIS_{it} + \mu \dots \dots (vi)$$

Equation (iv) is called econometric or multiple linear regression model. ROA= Return on Asset; ROE= Return on Equity; COMP= Average of ROE and ROA; ECODIS= Disclosure of Economic activities; ENVIDIS= Environmental disclosure; SOCIDIS= disclosure of social activities

Operational Definition of Variables

Dependent Variable

The dependent variable is the financial performance it proxied with Return on Assets.

Independent Variables

The independent variable is the sustainability reporting which is seen from three dimensions. They are economics, environmental, and social aspects. These dimensions make up the three independent variables for this study. U_t = Stochastic term; The apriori signs are $B_1 > 0$, $B_2 > 0$, $B_3 > 0$.

Method of data Analysis

For data analysis, panel data technique and t-test were used. It was used based on the following fundamental justifications. First, its ability to identify and measure statistical effect of an independent variable on a dependent variable. Second, its capability of minimizing estimation biases that may arise from aggregating groups into a single time series. Third, its heterogeneity across groups and introduce individual-specific effects. Thus, to effectively identify the impact to environmental disclosures practices of the selected more affect performance firms in Nigeria, panel data technique was employed.

4. Data Presentation and Analyses

Table 1

Descriptive Statistics Result

	Mean	Median	Max.	Min.	Stv.dev	JB	Prob	Kurtosis
ROA	0.1038	0.07400	0.9800	-0.5230	0.126144	2190.92	0.000	10.8618
ROE	0.1255	0.117000	1.182000	-1.12500	0.134789	16218.63	0.000	25.26365
ECODIS	2.7282	2.0000	6.0000	0.0000	2.2335	73.4369	0.000	1.7371
ENVIDIS	2.2948	2.0000	8.0000	0.0000	2.3423	132.717	0.000	3.3862
SOCIDIS	1.3564	1.0000	6.0000	0.0000	1.6344	111.120	0.000	2.0342

Researcher's computation (2024)

Table 1 presents the results of the descriptive statistics for the variables of selected non-financial firms used for this work. The result additionally revealed ROA has a mean value of 0.1038 while it has maximum and minimum values of 0.9800 and -0.5230 respectively. The standard deviation reported relatively small values of 0.126144, which implies that there is dispersion away



from the mean. Since the mean ($0.1038 > 0.074$) is greater than the median, it indicates that ROA is skewed to the right. The coefficient value of kurtosis, $10.861 > 3$ implies a fatter tail and a leptokurtic distribution. The Jarque-Bera value of 2190.92 and the associated p-value of 0.000 indicate that the data is normal ($p > 0$) and that outliers or selection bias that the generalization from the study are unlikely.

Additionally, the result revealed that ROE has a mean value of 0.1255 while it has maximum and minimum values of 1.1820 and -1.1250 respectively. It implies that at average firms under review have a maximum of 12% returns on shareholders' wealth. The standard deviation reported relatively small value of 0.13478 shows that ROE is dispersion away from the mean. Since the mean is relatively lower than ($0.125 < 2.00$) the median, it indicates that ROE is slightly skewed to the left. The variable is positively skewed and the positive value of the kurtosis signifies that the regression variable is peaked than the Gaussian distribution. Kurtosis value ($25.263 > 3$) implies a fat tail and a leptokurtic distribution. The Jarque-Bera value of 16218.63 and the associated p-value of 0.000 indicate that the data is normal ($p > 0$) and that outliers or selection bias that the generalization from the study are unlikely.

Disclosure of Economic activities (ECODIS) has a mean value of 2.7282 while it has maximum and minimum values of 6.0000 and 0.0000 respectively. The standard deviation reported relatively small values 2.2335 meaning that ECODIS is clustered around the mean. Since the mean is relatively greater than ($2.7282 > 2.00$) the median, it implies that the variable is slightly skewed to the right. The kurtosis is a measurement of the ends of a distribution and is used to dictate the size of the tails of a data distribution. The coefficient value of kurtosis of $1.7371 < 3$ implies a flat tail and ECODIS is a platykurtic distributions. The Jarque-Bera value of 73.4369 and the associated p-value of 0.0000 indicate that the data is normal ($p > 0$) and that outliers or selection bias that the generalization from the study are unlikely.

Disclosure of environmental activities (ENVIDIS) has a mean value of 2.2948 while it has maximum and minimum values of 8.0000 and 0.0000 respectively. The standard deviation reported relatively small values 2.3423 shows that ENVIDIS is cluster around the mean. The mean 2.2948 is greater than the median value of 2.0000. This implies that ENVIDIS is slightly skewed to the right. The kurtosis is a measurement of the ends of a distribution and it is used to dictate the size of the tails of the data distribution. The coefficient value of kurtosis of $3.3862 < 3$ implies a fat tail and a leptokurtic distribution. The Jarque-Bera value of 132.717 and the associated p-value of 0.000 indicate that the data is normal ($p > 0$) and that outliers or selection bias that the generalization from the study are unlikely.

The result revealed that disclosure of social activities (SOCIDIS) has a mean value of 1.3564 while it has maximum and minimum values of 6.000 and 0.000 respectively. The standard deviation reported relatively small values 1.6344 shows that there is dispersion away from the mean. The mean value of 1.3564 relatively greater than (1.0000) the median which indicates that it slightly skewed to the right. Kurtosis value of $2.0342 < 3$ implies a flat tail and SOCIDIS is a platykurtic distributions. The Jarque-Bera value of 111.120 and p-values (0.000) implies that the variable is normally distributed.



**SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE OF
QUOTED NON-FINANCIAL FIRMS IN NIGERIA**

Table 2
Correlation

	ROA	ECODIS	ENVIDIS	SOCIDIS
ROA	1.000000 12.39562 -----			
ECODIS	0.008815 1.934832 0.8058	1.000000 3886.379 -----		
ENVIDIS	-0.041820 -9.625995 0.2434	0.570654 3495.513 0.0000	1.000000 4274.179 -----	
SOCIDIS	-0.029647 -4.761496 0.4083	0.551219 1567.559 0.0000	0.681693 2033.026 0.0000	1.000000 2080.918 -----
	ROE	ECODIS	ENVIDIS	SOCIDIS
ROE	1.000000 ----- -----			
ECODIS	-0.084004 -2.351399 0.0190	1.000000 ----- -----		
ENVIDIS	-0.038938 -1.086899 0.2774	0.879050 51.43179 0.0000	1.000000 ----- -----	
SOCIDIS	-0.040351 -1.126423 0.2603	0.585974 20.17001 0.0000	0.730504 29.83668 0.0000	1.000000 ----- -----

Source: Researcher's computation (2024)

Table 2 presents the Pearson correlation coefficient results for the variables. It was observed that Return on Assets (ROA) appears to be positively correlated with ECODIS as depicted by the correlation coefficient (0.008815). It implies that ECODIS and ROA move in the same directions. ENVIDIS exhibit a negative association with ROA as depicted by correlation coefficient (-0.04180). It was also observed that SOCIDIS has negatively association with ROA as depicted with correlation coefficient (-0.02964). This implies ROA and SOCIDIS move in this dissimilar direction. The result further revealed that ENVIDIS has a positive association with ECODIS as depicted by coefficient of (0.5706). It implies that EVIDIS and ECODIS move in the direction. ECODIS showed positive



association with SOCIDIV as depicted by correlation coefficient (-0.5512). This relationship is significant at 5%. It was further observed that EVIDIS is positively correlated with SOCIDIV as depicted by the correlation coefficient (0.681693).

Nevertheless, it was observed that Return on Assets (ROE) appears to be negatively correlated with ECODIS as depicted by the correlation coefficient (-0.0840). It implies that ECODIS and ROE move in the dissimilar directions. ENVDIS exhibit a negative association with ROE as depicted by correlation coefficient (-0.0389). It was also observed that SOCIDIS has negatively association with ROE as depicted with correlation coefficient (-0.0403). This implies ROE and SOCIDIS move in this dissimilar direction. The result further revealed that ENVDIS has a positive association with ECODIS as depicted by coefficient of (0.8790). It implies that EVIDIS and ECODIS move in the same direction. ECODIS showed positive association with SOCIDIV as depicted by correlation coefficient (0.5854). This relationship is significant at 5%. It was further observed that EVIDIS is positively correlated with SOCIDIV as depicted by the correlation coefficient (0.7305). The correlation coefficient results showed that none of the variables is very strongly correlated and this indicates that the problem of multicollinearity is unlikely and hence the variables are suitable for conducting regression analysis.

Regression Result and Diagnostic Test

Table 3

Regression Assumptions Test

Model 1 Multicollinearity test		
Variable	Coefficient Variance	Centred VIF
C	2.594617	NA
ECODIS	9.506074	3.811825
ENVDIS	9.721721	4.957335
SOCIDIV	3.181599	1.883005
Heteroskedasticity Test: ARCH		
F-statistic = 2.18358	Prob. F(3,776)	0.088
Breusch-Godfrey Serial Correlation LM Test:		
F-statistic = 1.0657	Prob. F(1,775)	=0162
Ramsey model test		
F-statistic = 1.75075	Prob. F(1, 200)	0.1873
Model 2		
C	3.714286	NA
ECODIS	2.057140	3.573630
ENVDIS	2.500000	4.711538
SOCIDIV	5.842860	7.862088
Heteroskedasticity Test: ARCH		
F-statistic = 2.0327	Prob. F(3,48)	0.1218
Breusch-Godfrey Serial Correlation LM Test:		
F-statistic = 1.3063	Prob. F(2,46)	0.2807
Ramsey model test		
F-statistic = 0.0358	Prob. F(1, 47)	0.8507

Source: Researcher's Computation (2024)



To further strengthen the result of the absence multicollinearity, we carried out a residual diagnostic test of variance inflation factor. From table 3, it is observed that the variance inflation factor (VIF) which measures the level of collinearity between the variables show how much of the variance of a variable most likely the coefficient estimate of a regressor has been inflated due to collinearity with the other variables or likely regressors. They can be calculated by simply dividing variance of a coefficient estimated by the variance of that coefficient had other regressors not been included in the equation. The VIFs are inversely related to the tolerance with larger values indicating involvement in more severe relationships. Basically, VIFs above 10 are seen as a cause of concern (Landau & Everit, 2003). All variables reported a VIF of less than 10. Inclusion, the VIFs of the variables is all less than 10 indicating the unlikelihood of multicollinearity amongst the variables and hence the variables satisfy a very important condition the multivariate regression analysis.

The ARCH test for heteroskedasticity was performed on the residuals as a precaution. The results showed probabilities in excess of 0.05 which led us to reject the presence of heteroskedasticity in the residuals. The Lagrange Multiplier (LM) test for higher order autocorrelation reveals that the hypotheses of zero autocorrelation in the residuals were not rejected. This was because the probabilities (Prob. F, Prob. Chi-Square) were greater than 0.05. The LM test did not, therefore, reveal serial correlation problems for the model. The performance of the Ramsey RESET test showed high probability values that were greater than 0.05, meaning that there was no significant evidence of misspecification.

Normality test Model I

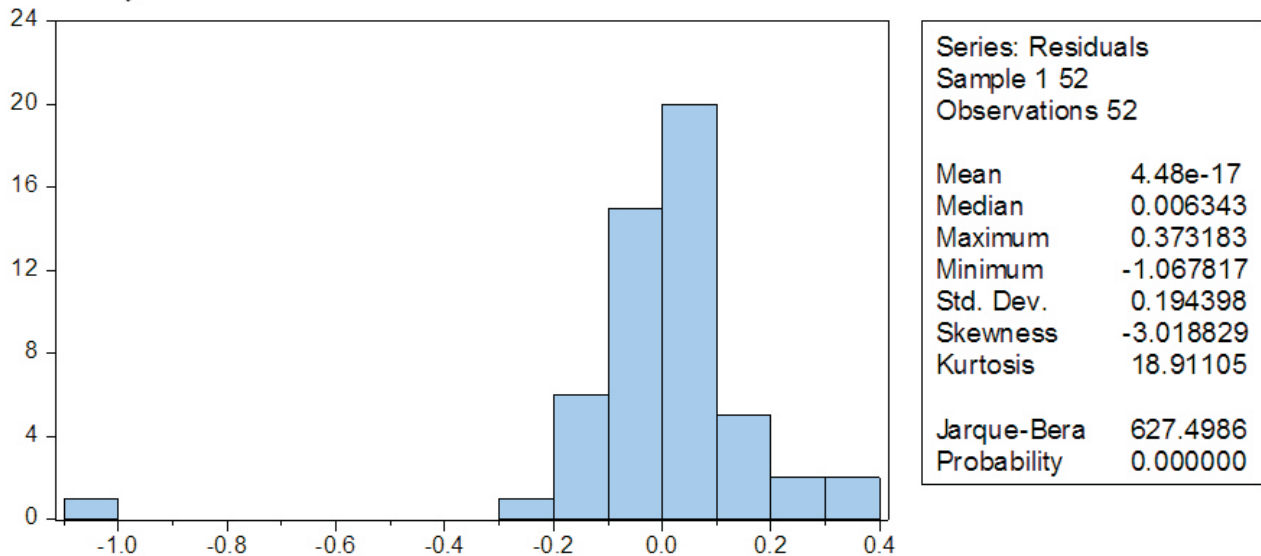


Figure 1

Source: Researcher's computation (2024)



The histogram of the normality test further strengthened the Jarque–Bera statistics reported in table1. The Normality test result signifies a bell–shape histogram with mean Jarque-Bera value of 627.498 and associated probability value of 0.000000 which signifies normal distribution of the regression variables for model I

Normality test Model II

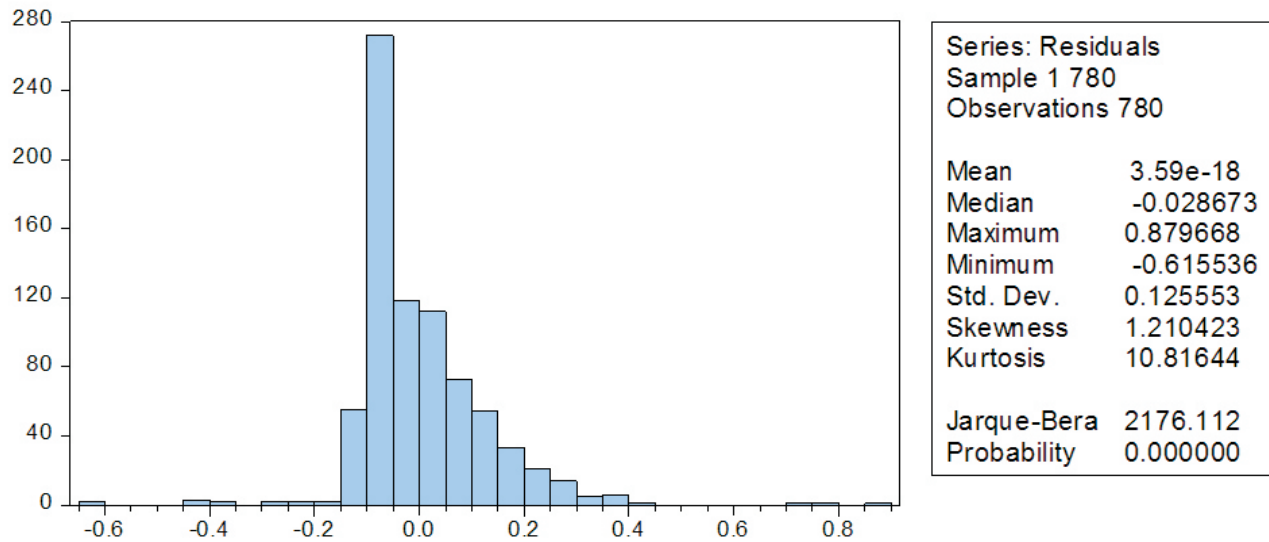


Figure 2

Source: Researcher's computation (2024)

The histogram of the normality test further strengthened the Jarque–Bera statistics reported in table1. The Normality test result signifies a bell–shape histogram with mean Jarque-Bera value of 2176.1 and associated probability value of 0.000000 which signifies normal distribution of the regression variables for model II.

Regression Results

The regression analysis was conducted to show the effects of the predictors on performance. The estimations were conducted across several specifications. The study provided more robust estimations by using EGLS to analyze data below:

Table 4

ROA and Sustainability

Variable	Model I
<i>C</i>	0.090704 (16.888) {0.000}
<i>ECODIS</i>	0.00900 (2.9565) {0.0032}
<i>ENVIDIS</i>	0.00901 (2.7308) {0.0065}
<i>SOCIDIS</i>	-0.003 (1.096) {0.2732}
<i>R</i> ²	0.618
<i>Pro</i>	0.0000
<i>DW</i>	1.63
<i>F-Stat</i>	4.9106

Source: Researcher's computation (2024)



SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE OF QUOTED NON-FINANCIAL FIRMS IN NIGERIA

The table 4 displays the effect of sustainability reporting on ROA (Model I). The result revealed that disclosure of economic activities has a positive effect on ROA as depicted by $t=2.9565$ and $p=0.0032$. This relationship is significant at 5% since $p=0.003<0.05$. The result further revealed that disclosure of environmental activities has positive effect on financial performance (ROA) in the Nigerian quoted non-financial firms as depicted by $t=2.7308$. And $p=0.0065$. This effect is significant at 5%, since $p=0.0065<0.05$. This result implies that a increase in disclosure of environmental activities will enhance performance. Additionally, the result regression result displayed in table 6 revealed that disclosure of social activities has a negative effect on financial performance (ROA) of the Nigerian quoted non-financial firms.as depicted by $t=-1.0965$ and $p=0.273$. This effect is not significant at 5% since $p=0.272<0.05$.

In evaluating the performance of the model which relates ROA and sustainability reporting it was observed that, the R^2 stood at 0.612 indicating that the explanatory explained about 61% of variations in the dependent variable. The F-stat (4.9106) and Prob-stat= 0.000 show that the model is fit at 5% and the hypothesis of a linear relationship cannot be rejected at 5%. The D.W. stat of 1.61 suggests that stochastic dependence is unlikely between successive units of the error term.

Table 5

ROE and Sustainability reporting

Variable	Model II
<i>C</i>	0.1261 (24.957) {0.000}
<i>ECODIS</i>	-0.0075 (-2.7125) {0.0068}
<i>ENVIDIS</i>	0.0070 (2.2255) {0.0263}
<i>SOCIDIS</i>	-0.0049 (-1.7755) {0.076}
R^2	0.2775
$ADJ R^2$	0.2602
<i>F-Stat</i>	3.5974
<i>P(f-stat)</i>	0.0133
<i>D.W</i>	1.761

Source: Researcher's Computation (2024)

**** sig @ 5%, ()= t-stat , {}= prob, C= ROE**

The table 5 displays the effect of sustainability reporting on ROA (Model II). The result revealed that disclosure of economic activities has a negative effect on ROE as depicted by $t=-2.7125$



and $p=0.0068$. This relationship is significant at 5% since $p=0.0068 < 0.05$. The result further revealed that disclosure of environmental activities has positive effect on financial performance (ROE) in the Nigerian quoted non-financial firms as depicted by $t=2.225$ and $p=0.0263$. This effect is significant at 5%, since $p=0.0263 < 0.05$. This result implies that an increase in disclosure of environmental activities will enhance performance. Additionally, the result regression result displayed in table 5 revealed that disclosure of social activities has a negative effect on financial performance (ROE) of the Nigerian quoted non-financial firms. as depicted by $t=-1.7755$ and $p=0.076$. This effect is not significant at 5% since $p=0.076 > 0.05$.

In evaluating the performance of the model which relates ROE and sustainability it was observed that, the R^2 stood at 0.612 indicating that the explanatory explained about 61% of variations in the dependent variable. The F-stat (3.5974) and prob-stat= 0.0133 show that the model is fit at 5% and the hypothesis of a linear relationship cannot be rejected at 5%. The D.W. stat of 1.77 suggests that stochastic dependence is unlikely between successive units of the error term.

Table 6

COMP and Sustainability Reporting

Variable	Model III
<i>C</i>	0.2390 (22.6592) {0.000}
<i>ECODIS</i>	-0.0041 (-3.6589) {0.0101}
<i>ENVIDIS</i>	-0.0014 (-4.2048) {0.0083}
<i>SOCIDIS</i>	0.000571 (0.0946) {0.9246}
R^2	0.5408
$ADJ R^2$	0.5002
<i>F-Stat</i>	3.0596
<i>P(f-stat)</i>	0.0036
<i>D.W</i>	1.99

Source: Researcher's Computation (2024)

** sig @ 5%, ()= t-stat , {}= prob, C= ROE

The table 6 displays the effect of sustainability reporting on COMP (Model III). The result revealed that disclosure of economic activities has a negative effect on COMP as depicted by $t=-3.6589$ and $t=0.0101$. This relationship is significant at 5% since $p=0.001 < 0.05$. The result further



revealed that disclosure of environmental activities has negative effect on financial performance (COMP) in the Nigerian quoted non-financial firms as depicted by $t=-4.2048$ and $p=0.0083$. This effect is significant at 5%, since $p=0.0083<0.05$. This result implies that an increase in disclosure of environmental activities will enhance performance. Additionally, the result regression result displayed in table 6 revealed that disclosure of social activities has a negative effect on financial performance (COMP) of the Nigerian quoted non-financial firms as depicted by $t=0.0946$ and $p=0.9246$. This effect is not significant at 5% since $p=0.9246>0.05$.

In evaluating the performance of the model which relates COMP and sustainability t was observed that, the R^2 stood at 0.540 indicating that the explanatory explained about 54% of variations in the dependent variable. The F-stat (3.5974) and Prob-stat= 0.0086 show that the model is fit at 5% and the hypothesis of a linear relationship cannot be rejected at 5%. The D.W. stat of 1.99 suggest that stochastic dependence is unlikely between successive units of the error term

Discussion of Findings

This study makes multiple contributions to the development of the literature by giving a all-inclusive depiction of the sustainability disclosure in the Nigerian manufacturing its impact on the financial performance of firms. In additionally, this study attempts to fill a gap in prior research by reviewing past works on sustainability reporting. Consequently, the relevance of sustainability disclosure dwindles because lack of lucidity in the reporting process. However, continuity in sustainability practice is a crucial principle for understanding the accountable behavior of the firm. This study rigorously examined this reporting continuity and selected only those firms that have consistently published their sustainability reports over the years. This was aimed at ascertaining the relationship between sustainability disclosure and firm performance.

The robust estimation results of the GLS statistic technique employed in this study reveals that disclosure of economic activities has negative effect on firm financial performance. This result is in line with Priyanka (2013) whose result revealed that disclosure of economic activities has negative effect on firm financial performance. This result is at variance with *a priori* expectation which postulated that ECODIS will positively influence financial performance. This result is also at variance with Eze (2022) whose outcome revealed that disclosure of economic activities has positive influence on performance of Australian electricity companies.

Furthermore, the robust estimation results of the GLS statistic technique employed in this study reveals that reveals further reveal that the disclosure of environmental activities also has negative effect on firm financial performance. This result is at variance with *a priori expectation which* postulated a positive relationship between disclosure of environmental activities and firm performance. The result is also variance with extant positive of Ameer and Othman (2012). This is at variance with Isiaka (2023) which revealed that performance has a positive relationship with disclosure environmental activities. This result is also at variance with Olafusi et al. (2023) which revealed disclosure of environmental activities has no significant relationship with financial performance of DMBs in Nigeria.

The result shows that disclosure of social activities has no significant effect on performance quoted non-financial firms in Nigeria. This result is at variance with *a priori* expectation which postulated positive relationship between sustainability disclosures. This result also but in line with Venanzi (2012) that found that there is no significant relationship between SOCIDIS and firm performance. The is also at variance with Eze (2022) whose outcome revealed that disclosure of social activities have positive influence on performance of Australian electricity companies.



5. Conclusion and Recommendations

Environmental disclosure is still at its lowest recede in Nigeria. This is due to fact that it is voluntary and there is no law regulator that is saddled with the responsibility of enforcing compliance. This study was performance to give cradle to prior studies and to reaffirm results of gotten by prior researcher on the subject. The result shows that disclosure of economic activities by quoted non-financial firms in Nigeria negatively influences financial performance of firms within this biome. The result further reveals that disclosure of environmental activities by quoted non-financial firm in Nigeria has a negative effect on financial performance. Finally, the results reveal that disclosure of social activities by non-banking firm in Nigeria has negative no effect on the financial performance of firm in this biome. The recent global climatic drift has raised the concerns of stakeholders in many quarters and has put the subject matter under the radar of sustainability research spotlight in recent times. Some are of the opinion that many managers used substantiality disclosure as reputational boosting device. However, the weakness in regulations within the Nigerian ecosystem has made firms to feel that they can destroy the natural business habitant without replenishing and go unpunished. Weaknesses in accounting regulations are most times not obvious until they have been exploited by management.

Based on fore going this study recommended that management should exert more effort in disclosure of economic activities and less effort in disclosure of social activities. Also, firms should strive to improve the clarity and consistency of their sustainability reporting processes. This involves ensuring that the disclosure of economic, environmental, and social activities is transparent and easily understandable for stakeholders. Clear and consistent reporting can help mitigate the negative impact on financial performance identified in the study.

References

- Abdullah, A., & Ismail, M. (2018). Firm attributes, board characteristics and corporate social responsibility of listed deposit money banks in Nigeria.(Unpublished M. Sc. Research project, Ahmadu Bello University Zaria, Nigeria). Retrieved (6/4/2024) from <https://kubanni.abu.edu.ng/items/d4959c14-9c63-4ecc-a776-f3fd5f673794>.
- Aggarwal, P. (2013) Impact of sustainability performance of company on its financial performance: A study of listed Indian companies. *Global Journal of Management and Business Research Finance*, 13 (11) 61-70.
- Akpan, M.M., & Simeon, H.B. (2021). A study of the determinants of corporate environmental disclosure in MENA emerging markets; *Journal of Reviews of Global Economics*, 2(2), 9-21.
- Al-Tuwaijri, M., Păvăloaia, L., Afrăsinei, M. B. & Iuliana, E. (2004). Is sustainability reporting a business strategy for firm's growth? Empirical study on the Romanian capital market. *Journal of sustainability*, 11(6), 1-21.
- Aluwon, E. & Fodio, P. (2019) Materiality analysis in sustainability and integrated reports. *Sustainability Accounting. Management and Policy Journal* 11(1), 162-186.
- Amaeshi, K., Adi, A., Amao, O. O., & Ogbechie, C. (2023). Corporate social responsibility in Nigeria: western mimicry or indigenous influences? *Journal of Corporate Citizenship*, 24(4), 83-99.
- Barako, D. G., (2023). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, 14(2), 107–125.
- Bewley, U. & Li, U. (2000). Audit committee attributes and audit quality: A benchmark analysis of Business: Theory and Practice. XDG Prints.



- Caesari, R. R., & Basuki, M. F. (2017). Determinants of corporate environment, social and governance (ESG) reporting among Asian firms. *Journal of Risk and Financial Management*, 14(4), 167-180.
- Cameron, S. (2018). Relationship between environmental disclosures and corporate characteristics: A study of large manufacturing companies in India. *Social Responsibility Journal*, 5(2), 227–244.
- Damian, K. E. (2006). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach. *Accounting, Organizations and Society*, 29(1), 447–471.
- Davied, B.H., & Okorite, A.L (2017). Effect of corporate attributes on environmental disclosure of listed oil and gas companies in Nigeria; *European Journal of Accounting, Auditing and Finance Research*, 7(12), 32-38.
- Ebaid, A. R.(2022). A study of corporate social disclosures in Bangladesh. *Managerial Auditing Journal*, 16 (5), 274-289.
- Ebimobowei, I.E. (2011). The relationship between sustainability reporting and the financial performance of companies listed on the Saudi stock exchange markets. *International Journal of Law and Management Research*, 26(4), 20-34
- Ebiringa, O.T., Yadirichukwu, E. & Ogochukwu, O.J. (2013). Effect of firm size and profitability on corporate social disclosures: The Nigerian oil and gas sector in focus. *British Journal of Economics, Management & Trade* 3(4), 563-574.
- Effiong, F., Oti, A. & Akpan, I. (2021). Patterns of corporate social and environmental disclosure in Nigeria. *International Journal of Business and Finance Management Research* 3(2), 71-82.
- Egbunike, A.P., & Nwankwe, T. (2023). Firm's specific attributes and voluntary environmental disclosure in Nigeria: evidence from listed manufacturing companies. *Academy of Accounting and Financial Studies Journal*, 21(3), 1-9
- Egolum, P. U., Amahalu, N. N. & Obi, J. C. (2019). Effect of firm characteristics on environmental performance of quoted industrial goods firms in Nigeria. *International Journal of Research in Business, Economics and Management*, 3(6), 1-16.
- Eze, C.B. (2022). Sustainability disclosures and market value of firms in emerging economy: Evidence from Nigeria. *European Journal of Accounting, Auditing and Finance Research* 7(3), 1-19.
- Ezeagba, C.E, Racheal, J.C & Chiamaka, U. (2023). Environmental accounting disclosures and financial performance: A study of selected food and beverage companies in Nigeria (2006-2015) *International Journal of Academic Research in Business and Social Sciences* 7(9), 162-174.
- Freeman, R. (1984). *Strategic management: A stakeholder approach*. London: Pitman.
- Friedman, A.L. (2002). Developing stakeholder theory. *Journal of Management Studies*. 39 (1), 3-4
- GRI (2011). *Sustainability reporting guidelines*, version 3.1. GRI (2013). *The G4 sector specific disclosures for financial services*.
- Hefferman A. J., R. & Flood, R.A. (2000). Environmental disclosure in annual reports: A legitimacy theory framework. Working Paper. Oakland University: 47 p. Sengupta, P. 1998. Corporate Disclosure Quality and the Cost of Debt. *The Accounting Review*, 73(4), 459-47.
- Ho, N., & Taylor, C. (2007). Firm characteristics and environmental disclosure in an extractive industry in Tanzania. *Business Management Review*. 24(2), 33-54.
- Isiaka, U. (2023). CSR performance, firm's attributes, and sustainability reporting. *International Journal of Business and Society*, 21 (2), 521 – 539.



- Kabiru, M. E. (2020). The corporate citizen: Governance for all entities. Penguin Books, 3(2), 17-18.
- Lawrence, M. (2022). Sustainability reporting and financial performance of companies listed in the Nigeria Stock Exchange. *European Journal of Accounting, Auditing and Finance Research*, 10 (5), 25-73
- Mohamed, A., & Faouz, R. H. (2014). Environmental factors influencing accounting disclosure requirements of Global Stock Exchanges. *Journal of International Financial Management & Accounting*, 4(2), 75–105.
- Musa, Y. A., Peter, M.P., & Bukar, A. (2015). Performance measurement and management in the upstream oil and gas sector. *Journal of Business and Management*, 4(18), 26-33.
- Nguyen, L. S., Tran, T. H. & Nguyen, T. N. (2023). Factors affecting disclosure level of environmental accounting information – the case of Vietnamese firms doing business under the model parent company – subsidiary company. The 5th IBSM International Conference on Business, Management and Accounting 19-21 April 2023. Hanoi University of Industry, Vietnam.
- Nnamani, I. E. (2023). The integrated reporting (IR) framework implementation in Nigerian listed companies. *Global Journal of Accounting*, 6(1), 1-11.
- Norhasimah, M.N., Norhabibi, A.S.B. Adan, N. A. Sheh-Mohamed, Q. A. K., & Ali, I M. (2015). The effects of environmental disclosure on financial performance in Malaysia. *Procedia Economics and Finance* 2 (2) 35-38.
- Okafor, A., Adeusi, M., & Adeleye, B.N. (2021). Corporate social responsibility and financial performance. *Journal of International Financial Management & Accounting*, 6(3), 2–6.
- Okafor, T.G. (2018). Environmental costs accounting and reporting on firm financial performance: a survey of quoted Nigerian oil companies. *International Journal of Finance and Accounting*, 7(1), 1-6.
- Olafusi, F., Olorunwa, E., & Temitope, K. S. (2023). The determinants of environmental disclosure in the financial report of listed companies in Nigeria. *IRE Journals*, 5(9), 13-26.
- Olutola (2022). Sustainability reporting and financial performance of listed manufacturing firms in Nigeria. *Gusau Journal of Accounting and Finance*, 3(3) 12-23
- Owie, S.O. (2019). Sustainable development reporting practices by Nigerian banks. *Mediterranean Journal of Social Sciences* 5(23): 2535-2544.
- Rahman, M. M. & Rahman, M. S. (2020). Green reporting as a tool of environmental performance: Evidence from US tech firms. *European Journal of Accounting, Auditing and Finance Research* 2(1), 3-8.
- Sarumpaet, S. (2015). The relationship between environmental performance and financial performance of Indonesian companies. *Jurnal Akuntansi dan Keuangan*, 7, 89-98.
- Shuaibu, M.I. (2020). Effect of corporate attributes on environmental disclosure of Listed oil and gas companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research* 7(10), 32-47.
- Smith, P. (2003). Sustainability reporting and firms' economic performance: evidence from Asia and Africa. *Journal of the Knowledge Economy*. 1(2), 20-23.
- Umoren, A., & Ukpong, K. (2022). Disclosure of voluntary accounting ratios by Malaysian listed companies. *Journal of Financial Reporting and Accounting*, 6(1), 1-20.
- Umoren, A., Udo, E. & George, B. (2015). Environmental, social and governance disclosures: A call for integrated reporting in Nigeria. *Journal of Finance and Accounting*, 3 (6), 227 – 233.



*SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE OF
QUOTED NON-FINANCIAL FIRMS IN NIGERIA*

- Utile, B.J., Iorbee, T.D., & Agbe, I.E (2023). Corporate environmental reporting and financial performance. *Journal of Financial Reporting and Accounting*, 4(2), 11 - 17.
- Uwalonma, U. (2011). An empirical investigation of the association between firms' characteristics and corporate social disclosures in the Nigerian financial sector. *Journal of Sustainable Development in Africa* 13(1), 60-74
- Venkatraman, T.D., & Ramanujah, M. (2016). Effect of board characteristics on social and environmental disclosure of listed environmentally sensitive firms in Nigeria. *Gusau Journal of Accounting and Finance*. 2(3), 1-16