



**SUSTAINABILITY REPORTING AND VALUE CREATION IN SELECTED LISTED
MANUFACTURING COMPANIES IN NIGERIA**

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ABSTRACT

The global business world has gone beyond just financial data and status of the firm but rather the mixture of the components that sustain the development of the business. This study investigated the effects of sustainability reporting on the value creation of listed manufacturing firms in Nigeria. The study employed longitudinal research design with the population of 45 quoted manufacturing firms on the Nigeria Exchange Group as at 30th May, 2023. The study used the whole 45 firms as a sample size using the sampling method. Data were obtained from the annual reports of selected manufacturing firms between the years 2012 and 2021. The multivariate regression analysis was used to examine how the sustainability reporting variables influence firm's value creation. The result of the study showed that social sustainability disclosure has a positive and significant effect on the earnings per share of the under study listed manufacturing firms in Nigeria with coefficient of 1.006 ($p=0.044 < 0.05$). Also, economic sustainability disclosure has a positive and insignificant effect on the earnings per share with coefficient of 0.927 ($p=0.183 > 0.05$) while environmental sustainability disclosure has a negative and significant effect on the earnings per share with coefficient of -1.070 ($p=0.006 < 0.05$). Based on the findings of this study, it was concluded that the social sustainability reporting and economic sustainability reporting improve the value of listed manufacturing companies in Nigeria with an extra unit of disclosure. Also, the environmental sustainability reporting not have any significant effect on the value of listed manufacturing firms in Nigeria. Based on the findings of the study, it was recommended that valuable financial, material

and human resources should be channeled on policies that relate to improving social sustainability if the desire is to gain improved firm value.

KEYWORDS: Sustainable reporting; Economic sustainability, Social sustainability, Environmental sustainability, Value creation, Earnings per share.

JEL: M2, M14

1. INTRODUCTION

Today, companies are majorly challenged with problems of balancing financial performance and social and environmental sustainability and this has led to an increasing demand for reporting, on financial and non- financial issues (Adegbe 2020). It is not enough to know about the financial performance of a company but also sustainability performance in order to balance the interest of the stakeholders. Some firms have taken the lead by voluntarily publishing information about their sustainable development initiatives and achievements in their annual reports, on their websites or in separate reports. According to a KPMG study (2017), nearly 80% of the large Global Fortune 250 companies issue a separate corporate responsibility report. However, it should be noted that this percentage is much lower among smaller companies. In addition, the global financial crisis has increased the call for more transparency and better reporting from companies. Evidenced by the worldwide growth in corporate responsible investments, capital providers and other stakeholders are urging companies to become more responsible for the impacts of their decisions and activities on the environment and are pressuring them to accept greater responsibility for sustainable development (Boluwaji et al., 2024).

Recent literatures have extensively examined the relationship between sustainability reporting and value creation. The study of Zraqat (2019) gives a clear demonstration of the positive impact of sustainability reporting on corporate value. And also Ekundayo et al (2020) results showed that CSR variables of community corporate social responsibility and employee relation of firms had a statistically significant positive impact on the financial performance (ROA) of listed industrial goods firms in Nigeria. Furthermore, recent empirical researches have shown that information on the social and environmental impacts of business operations have positive effect on financial performance of corporations (Ekundayo et al 2020; Zhou & Ki, 2017). In this sense, if financial performance, which is of tremendous interest to investors, is positively influenced by the social and environmental activities of a business, then information on the social and environmental impact of a business is also value relevant. But in the view of Asuquo et al (2018), it was stated that environmental performance disclosure and social performance disclosure have no significant effect on (return on asset) value creation.

The study aims to address the effect of sustainability reporting on the value creation of business organizations. . The study tries to introduce a measure of sustainability disclosure by evaluating the effects of sustainability reporting on value creation of companies in Nigeria. The study would help the management of the firms to engage in activities in a sustainable and responsible manner, effectiveness and openness of the company's dealing to achieve the organization goals and not at the detriment of the other stakeholders. Firms are now conscious that involvement in controversial events that may damage the company's credibility and reputation in the market, might negatively affect both the financial and market performance and the sustainable growth of the company (Oprean-Stan et al 2020). The study would assist organizations' management in determining which sustainability standards and guidelines to follow. It would also help in enhancing the scope of

knowledge of regulatory authorities and the legislative arm of government in putting in place regulations that encourage sustainability reporting and also contribute to the existing literatures on the sustainability reporting and value creation in Listed manufacturing firms in Nigeria.

The main objective of this study was to investigate the effect of sustainability reporting on the earnings per share of listed manufacturing companies in Nigeria. Specifically, this study intended to: ascertain the effect of Environmental Sustainability Reporting on the earnings per share of listed manufacturing companies in Nigeria, evaluate the impact of Social Sustainability Reporting on the earning per share of listed manufacturing companies in Nigeria and analyze the effect of Economic Sustainability Reporting on the earning per share of listed manufacturing companies in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

This section gives definitions to concepts of this study and thereby showing the link between sustainability reporting and value creation.

2.1.1 Value Creation

Yuliza (2018) defined value creation as higher earnings per share as the investors will pay extra for a corporation's shares, if they perceive the company has higher profits, which is relative to its share price. Schick (2017) defined Value Creation as increase in shareholders wealth represented by a rise in corporate profit or stock price. He further explained that it is a measure of the ability of the company to pay ordinary share dividends and also measures the potential return to ordinary shareholders.

The value created can be measured using : the economic value added (EVA), market value added (MVA), Cash Value Added (CVA), Shareholder Value Added(SVA) total shareholders return (TSR), cash-flow return on investment (CFROI), return on capital employed (ROCE) etc. However, in this study, the earning per share was employed. Earnings per share are a valuation metric that is applied to measure an establishment's profitability. Earnings per share (EPS) are a metric that measures management's success in generating profits for shareholders. It displays the percentage of a company's net profit that is divided to all shareholders (Choiriyah et al 2020). EPS is a quotient used to measure the level of a corporation's ability to generate net profits on each share (Sudirman et al 2020). This ratio indicates the amount of profit after tax attributable to each ordinary share. Earnings per share (EPS) represents the ration of an enterprise's earnings, net of taxes and preferred stock dividends, that is apportioned to each share of public stock and it also indicate how much earnings an establishment makes for each share of its stock.

2.1.2 Sustainability Reporting

The Global Reporting Initiative (GRI), a well-known organization in the sustainability field, defines Sustainability reporting as taking part in the assessment, disclosure, and accountability to the stakeholders—internal and external—for the business's overall performance. Sustainable reporting involves assessing, recording, and revealing an organization's financial, environmental, and social performance, which boosts business performance and advances sustainability development (Association of Chartered Certified Accountants, ACCA 2005). And according to Rezaee &Tuo (2019). Sustainability reporting is viewed as a process of focusing on company achievements in all five dimensions of sustainable performance-economic, social, managerial, ethical, and environmental.

Sustainability reporting provides a platform for users of information to have a holistic view of corporate performance and long-term value creation (Dilling&CayKoylu, 2019); and also, is the new reporting that not only combines both financial and non-financial information but also emphasizes on reporting information on long-term value creation of firms (Dilling& Harris, 2018; Villiers et al 2017); is considered as a better quality information which reveals the link between social, environmental and economic dimension of organizations (Villiers &Maroun, 2017); and measures and discloses non-financial performance of firms in relation to sustainable development goals (Emeka-Nwokeji&Osisioma, 2019).The World Business Council for Sustainable Development explains that sustainability reports are “public reports by companies to provide internal and external stakeholders with a picture of the corporate position and activities on economic, environmental, and social dimensions” (WBCSD & IFC, 2008).

2.1.3 Environmental Sustainability Reporting

Environmental reporting is a way of relating company’s impact on the environment; showing effort in managing those impacts and its input to ecological and sustainable developments. This is a compartment of environmental accounting practices which involves the transmission of information related to companies’ interaction with the natural environment to its stakeholders (Ikumapayi et al 2018; Etale&Otuya, 2018).

Environmental reporting provides a strategic framework for achieving a holistic re-appraisal of corporate performance. Although it is not a new concept, environmental reporting remains an interesting area of discourse for academics and an intensely debatable issue for business managers and their stakeholders. It is a means by which companies regularly divulge environmental information to their stakeholders to proof and affirm that they took responsibility for the subsequent effect of their activities on the environment (Nazim et al 2017).

Hence, the study sees environmental reporting as one way of ascertaining the commitment of organizations to their environmental strategy. The study examines the overall mode of environmental reporting practice ranging from separate disclosure to report made in chairman statement and footnote to financial reports. However, this new development in reporting has not been totally embraced by manufacturing companies in Nigeria In a study conducted by Mohammed (2018), it is however recorded that there is an increase in the level of environmental reporting of companies listed on the Stock Exchange. Since the economic function of manufacturing firms provide opportunities and as well pose threats to survival of other users of the environment, it is expected of firms to broaden their corporate objective and address the environmental expectation of salient stakeholders like customers by providing environmental information useful to them in the company’s annual report. Disclosing information about opportunities attached to manufacturing companies will enhance the companies’ value creation and enable bench marking against its competitors.

2.1.4 Social Sustainability Reporting

Social sustainability includes improving human resource related practices (e.g.) employees’ training and development, employees’ health and safety, diversity, equal opportunity and wage discrimination issues), addressing consumers’ issues (e.g.) customers’ health & safety, product labeling, communication practices, customers’ complaints and compliance with product laws), protecting human rights (e.g.) freedom of association, removing child labour issues, nondiscrimination and other safety measures, etc.), and addressing other issues of broader stakeholders and community concerns such as involving the local community, reducing corruption,

showing public policy concerns, discouraging anti-competitive behavior, and complying with the law (GRI 3.1 2021).

The concept gained prominence as a result of the ethical perspective of the organizations which recognized the value of social responsibilities in addition to their prime objective of wealth maximization. Social sustainability can be described as a company's commitment to behave socially and environmentally responsibly while striving for its economic goals. It includes the company's relationship with all its stakeholders, from market-related stakeholders (customers, share owners, suppliers) to internal (e.g., employees, board of directors) or societal stakeholders (e.g., 17 government, Non-Governmental Organizations).

2.1.5 Economic Sustainability Reporting

Economic sustainability, it refers to the efficient use of assets to maintain company profit over time. As stated by the UK Government (Annual Report 2000, January 2001) "Maintaining high and stable levels of economic growth is one key objective of sustainable development, hence, abandoning economic growth is not an option, it aims to keep the capital intact. In the context of business, it refers to the efficient use of assets to maintain company profit over time. Sustainable development is more than just economic growth and the quality of growth matters as well as the quantity.

2.1.6 Sustainability Reporting and Value creation

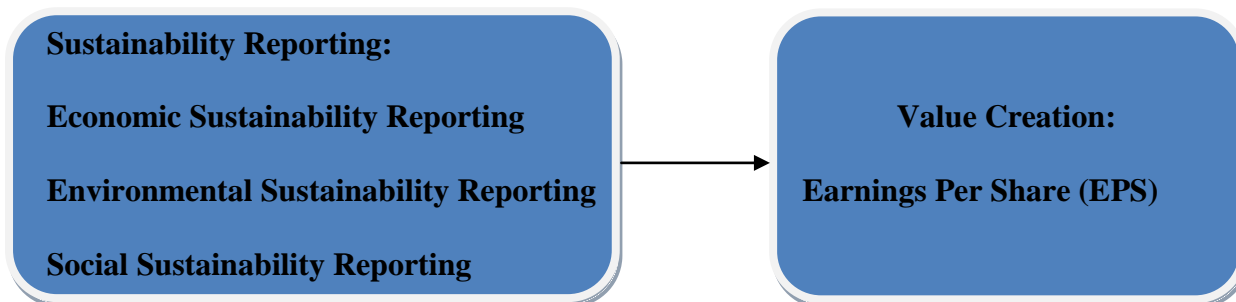
Sustainability reporting is the disclosure and communication of environmental, social, and governance (ESG) goals as well as a company's progress towards them. The benefits of sustainability reporting include improved corporate reputation, building consumer confidence, increased innovation, and even improvement of risk management (Bolaji et al., 2024; Kolawole et al., 2023; Nzekwe et al 2021). Sustainability reporting enables organizations to report on environmental and social performance. It is not just report 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 (Okudoet al 2021; Amahalu et al 2017).

Sustainability reports help companies build consumer confidence and improve corporate reputations through social responsibility programs and transparent risk management. Through sustainability reporting, companies communicate their performance and impacts on a wide range of sustainability topics, spanning environmental, social and economic parameters. It enables companies to be more transparent about the risks and opportunities they face, giving stakeholders greater insight into performance beyond the bottom line.

2.1.7 Conceptual Framework

Conceptual Framework showing the link between economic sustainability reporting, social sustainability reporting, environmental sustainability reporting and value creation.

Figure 1: Conceptual Framework



Source: Authors' Concepts (2023)

2.2 Theoretical Review

2.2.1 Stakeholder Theory

This study was anchored on the stakeholder theory. The shareholders' theory was proposed by Friedman (1970). The theory holds that maximization of profit accruing to shareholders is the primary objective of carrying on a business. The theory assumes that the aim of profit making makes the market vibrant and such drives the well-being of the economy. The assumption of the theory is also that the role of a business in its existence is majorly to increase the wealth of its shareholders through increase in dividend or increased share price. Therefore, any activity engaged in by the managers of firms is for the purpose of increasing shareholders' wealth (Awotomilusi et al., 2023; Dada et al., 2023; Dagunduro et al., 2023; Ucheagwu, 2019). It is one of the major approaches to social, natural and administration investigation. Scholars portray stakeholders as "those people who can influence or be influenced by the activities associated with trade" or as "the people who depend on the firm to attain their individual objectives and on whom the firm depends on for its existence".

The stakeholder theory argues that firms have a moral obligation to consider and appropriately balance the interest of all stakeholders. The study of Masud et al. (2017) and Dagunduro et al. (2022) has been recognized that organizations that consider stakeholders' requirements tend to show a better a performance than those which do not, also the study of Adeyeye and Adeyeye (2019) and Uwuigbe et al (2018) shown that there is positive relationship between sustainability reporting and value creation. Critics of stakeholder theory argue that the needs and interest of various stakeholder groups simply cannot be reconciled equitably. Additionally, the doctrine gives shareholders an upper hand while neglecting the society surrounding the entity.

2.2.2 Legitimacy Theory

Legitimacy theory was derived from the concept of organizational legitimacy, and it was propounded by Dowling and Pfeffer in 1975. Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies. In accordance with this theory, external stakeholders require the enterprise to take all such actions that will make its operations recognized as transparent which should be in accordance with the law and the principles of economics (Oluwagbade et al., 2023).

The theory is hinged on the assumption that accounting for sustainable development and the associated role of management accounting in sustainable development are used as communication mechanisms to inform and/or manipulate the perception of the entity's actions (Mistry et al 2014). Critics of legitimacy theory argue that it focuses on the external perception of corporations, rather than their internal motivations.

2.3 Empirical Review

Shahzad et al. (2021) examined the effect of corporate social responsibility on firm performance by accounting for the role of Intellectual capital efficiency as a mechanism underlying Corporate Social Responsibility (CSR)-firm performance association. The data were gathered through secondary data over the period of 2009-2018 and were analyzed using Moderated Regression over the period 2009-2018. The findings were that CSR had a significant effect on firm performance. The findings also revealed that CSR had a link with IC, indirectly affecting firm performance, and the association between CSR and firm performance was partially mediated by Intellectual capital efficiency. The scope of the study is US; it needs to be conducted in Nigeria to evaluate Nigeria Intellectual capital efficiency.

Şimşek and Öztürk, (2020) Evaluated the impact of environmental accounting approaches of businesses on the overall performance of businesses. Secondary data were used and analyzed by Multiple linear regressions as a result of the study, it was determined that there was a mutually significant relationship between environmental accounting, and performance. However, the environmental accounting approaches to the companies covered by the study were found to be at a low level.

Khan, Yu and Umar (2020) explored the linkage among environmental awareness, green practices, firm reputation and performance. The authors noted that undeniably, very few studies had been conducted on corporate social responsibility (CSR) and its effect on firms' performance. The data were collected from 404 firms located in Pakistan, and structural equation modeling (SEM) was employed to validate the hypotheses. The results showed that green practices were statistically significant to build a positive image of firms. Also, practices enhanced firm performance. Furthermore, the results also confirmed that CSR practice which provided "indirect support to the community" had an insignificant relationship with firm reputation due to mismanagement and corruption involvement at governmental levels. The study needs to be conducted in African countries.

Benali et al. (2021) aimed to empirically study the relationship between corporate social responsibility (CSR) and financial performance (FP) in the Moroccan context. The authors opted for a longitudinal study of listed companies over the period 2012-2017. Panel data were used as well to analyse the data. The findings of the study indicated mixed results. Indeed, the authors found a positive impact of CSR on FP, when using ROA as a proxy for FP. However, when using ROE as a proxy for FP, they did not find any impact of CSR on FP (neutral impact). The study could have tried to feature both social and environmental reporting.

Fakoya and Fakoya (2021) examined the effect of environmental accounting on the quality of accounting disclosure of shipping firms in Nigeria. They administered questionnaires to the staff of registered shipping firms in Nigeria and analysed the data using multiple regression. The findings showed that environmental accounting influenced the quality of accounting disclosure of shipping firms in Nigeria. They found a significant positive association between environmental accounting and the quality of accounting disclosure of shipping firms in Nigeria. The study should be extended to the area of heavily smoke emission companies.

Ekundayo et al. (2020) aimed to investigate the effects of corporate social responsibility on the financial performance of industrial goods companies listed on the Nigeria Stock Exchange from 2009 to 2018, the used the descriptive research design, the purposive sampling technique was applied on the study's population of 14 industrial goods firms to determine the sample size of 5

industrial goods firms. Panel data were obtained from the annual reports and accounts of the sampled industrial goods firms and analysed using multiple regression technique via STATA 12.0 software. The results showed that CSR variables of community corporate social responsibility and employee relation of firms had a statistically significant positive impact on the financial performance (ROA) of listed industrial goods firms in Nigeria. The author concluded that corporate social responsibility played a significant role in the financial performance of listed industrial goods firms in Nigeria. It was recommended that the management of industrial goods firms should adopt CSR because it had a positive effect on the overall financial performance of their business entities. The sample size is small to generalize the study on.

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Indriastuti and Chariri (2021) explained the effect of the carbon and environmental performances on sustainability report with financial performance as an intervening variable. Secondary data generated from Indonesia stock exchange and analyzed using Structural equation modelling (SEM Warp PLS). The results of the study indicated that carbon performance had a positive effect on financial performance. Meanwhile, the environmental performance had a negative effect on financial performance. The study could have used another analytical tool to get a variation in result. Olatunde et al. (2021) focused on the effect of environmental accounting and the corporate performance of selected quoted companies in Nigeria. Secondary data, analyzed using multiple regression analysis. The findings of the result showed that there was a significant positive relationship among environmental accounting and Return on Capital Employed (ROCE) and net profit margin (NPM), Return on Equity (ROE) and Return on Assets (ROA). The studies on environment have been over flooded, this study could have included economic effect of the sustainability.

Al-Waeli et al. (2021) primarily examined the link between the environmental disclosure of industrial companies in Iraq and their financial performance. The authors found that environmental disclosure was weak in Iraq compared to developing countries in the analysed studies.

Umoren et al. (2018) examined the nature of the relationship between environmental accounting reporting and oil companies' performance in Nigeria. Secondary data using Multiple linear regression. The results of the analysis showed insignificant relationships between environmental accounting reporting and performance variables, that is, return on capital employed, net profit margin, earnings per share and dividend per share.

Kasamani and Mostafa (2020) examined a mediated model to understand the link between corporate social responsibility (CSR) and firm performance (FP). Secondary data from Lebanese firms. Structural Equation Modeling was employed. In particular, CSR was positively linked to firm financial performance indirectly through the enhancement of reputation, customer satisfaction and competitive advantage.

Oraka (2021) ascertained the effect of environmental costs on the financial performance of oil and gas companies on the Nigeria Stock Exchange, Nigeria. Secondary data and analysed using Multivariate Regression. The study found that compliance cost and environmental remediation cost

had a significant effect on Tobin's Q of oil and gas companies listed on the Nigeria Stock Exchange.

There have been many studies on this, but the following gaps have been identified: A good number of studies laid emphasis on environmental sustainability as determinant of value creation, leaving economic and social sustainability reporting using existing data. Also there have been limited research materials on the work focusing on the Economic and Social independent variables Sustainability reporting. Given these gaps, studying the impact of environmental, social and economic sustainability reporting on value creation will be worthy of investigation.

HO₁: Environmental Sustainability reporting has no significant effect on the Financial Performance of listed Non-financial Companies in Nigeria.

HO₂: Social Sustainability Reporting has no significant effect on the Financial Performance of listed non-financial companies in Nigeria.

HO₃: Economic Sustainability Reporting has no significant effect on the Financial Performance of listed non-financial companies in Nigeria.

3. METHODOLOGY

This study is a quantitative in nature. It made use of secondary data collected from annual financial reports of selected listed manufacturing companies in Nigeria from Nigeria Stock Exchange (NSE). The study used longitudinal research design, because of the intent of the study to measure the effect on the earnings per share considering the variables of the sustainability reporting variables (environmental, social and economic). The population shall be the 45 listed manufacture companies on Nigeria Stock Exchange as at 2021. Census sampling were used, all population have readily available data. Specifically, this study will employ ex-post facto research design since the event had already taken place therefore, the information already existed. The study will cover 2012 and 2021. The choice of base year was to reflect the old and new changes in the sustainability reporting and the effect on value creation. Data collected was analyzed using descriptive statistics and multivariate regression analysis.

3.1 Model Specification

The study specified the econometric model to determine the effects of sustainability reporting on the value creation of manufacturing companies listed on the Nigerian Stock Exchange. This study modified Hongming, Ahmed, Hussan, Rehman, Ullah and Khan (2020) whose model is

$$ROCE_{it} = \partial_0 + \partial_1 envdit + \partial_2 csrdit + \partial_3 hsedit + \partial_4 eapsit + \partial_5 eaydit + \epsilon_{it}.$$

Modified model

$$EPS = f(ENVD + CSRD + EAPS) \dots \dots \dots \text{eqn (1)}$$

$$EPS_{it} = \beta_0 + \beta_1 ENVD_{it} + \beta_2 CSRD_{it} + \beta_3 EAPS_{it} + \mu_{it} \dots \dots \dots \text{eqn (2)}$$

Where:

ENVD = Environmental Sustainability Reporting

CSRD = Social Responsibility Reporting

EAPS = Economic Sustainability Reporting

Subscript i= Segment

Subscript t= Years ranging from 2012 to 2012

β_1, β_2 = Unknown Coefficient of Estimates of the independent variable

μ_{it} = Error term

A priori expectation = $\beta_1 > 0; \beta_2 > 0$

3.2 Measurement of Variables

Table 1: Summary of Variables, Measurement and Sources

S/N	Variables	Description	Measurement	Sources
1.	Environmental Sustainability Reporting (Independent variable)	It is the assessment as to the extent of companies disclosure to information related to policies, practices and performance	Index score generated from the score of 1 or 0 for disclosures or otherwise on material, energy, water, biodiversity, emission/greenhouse gas, waste management, product services and compliance to laws.	GRI(G4) Alaeto(2020),Bello, and Lasisi, (2020)
2	Social Sustainability Reporting (Independent variable)	It is the disclosure and communication of social goals as well as a company's progress toward them- health, influences etc.	Index score generated from the score of 1 or 0 for disclosures or otherwise on community, donation, employee, health and safety and customer/complaints.	GRI(G4) Alaeto(2020),Bello, and Lasisi, (2020)
3	Economic Sustainability Reporting (Independent Variable)	It is a board term that describes the disclosures to be made by firms on the positive or / and negative impacts of their activities on economy.	Index score generated from the score of 1 or 0 for disclosures or otherwise on economic performance, Market presence, Indirect Economic Impacts.	GRI(G4) Alaeto(2020),Bello, and Lasisi, (2020)
4	Value Creation Earnings per share	It is the percentage of a company's net profit that is divided to all shareholders.	Net Income of the company divide by the average outstanding shares of the company	Choiriyah, C., Fatimah, F., Agustina, S., &Ulfa, U. (2020)

Source: Author's Computation, 2023

4.0 DATA ANALYSIS

This section shows the descriptive statistics for both the explanatory and dependent variables of interest. Basically, each variable is examined in terms of the mean, standard deviation, maximum and minimum. Table 2 displays the descriptive statistics for the study.

Table 2: Descriptive Statistics

VARIABLES	MEAN	SD	MIN	MAX	NO OBS
EAPS	2.35	6.98	1.32	57.63	400
SOCD	0.32	0.17	0	0.86	400
ENSD	0.40	0.20	0	0.83	400
ECSD	0.27	0.16	0	0.82	400
MCAP	6.96	1.09	4.91	9.64	400

Source: Data Analysis, (2023)

The result of the descriptive statistics as presented in table 3 shows that the mean of earnings per share (EAPS) was 2.35 with a standard deviation of 6.98. In the case of the independent variables, we find that the mean of social sustainability disclosure (SOSD) has a mean of 0.32 with a standard deviation of 0.17. The mean of environmental sustainability disclosure (ENSD) was 0.40 with a standard deviation of 0.20. Similarly, the find that the mean of economic sustainability disclosure (ECSD) was 0.27 with a standard deviation of 0.16. The control variable of market capitalization had a mean of 6.96 with a standard deviation of 1.09.

In order to ascertain if our data follows a normal distribution, we employed the Shapiro Wilk test for data normality in STATA. The null hypothesis of the Shapiro-Wilkson test for normality (z-statistics) is that the data is normally distributed. An acceptance of the null hypothesis implies an insignificant p-value of the z-statistics and rejection of the null hypothesis implies a significant p-value of the z-statistics. The result of the test as shown in table 1 indicates that earnings per share has a z-statistics of 11.986 with a corresponding p-value of 0.00000 indicating that earnings per share is not normally distributed since the p-value of the Shapiro-Wilk statistics is significant at 1% level. This deduced the same for the independent variables of environmental sustainability disclosure ($z=4.700$, $p\text{-value}=0.00000$), economic sustainability disclosure ($z=5.690$, $p\text{-value}=0.00000$), and the control variable of market capitalization ($z=5.294$, $p\text{-value}=0.00000$) since the p-values of the Shapiro-Wilk statistics are significant at 1% level. However, it was documented that the independent variable of social sustainability disclosure ($z=1.466$, $p\text{-value}=0.07132$) is normally distributed since the p-value of the Shapiro-Wilk statistics is insignificant at 1% or 5% level. However, the study proceed with a parametric test of our hypotheses but carefully interpreting the p-value of the resulting regression estimates against the t-values in line with the position of Gujurat (2004) and Greene (2009).

Table 3: Correlation analysis

	EAPS	SOCD	ENSD	ECSD	MCAP
EAPS	1.0000				
SOSD	0.4712	1.0000			
ENSD	0.3449	0.7225	1.0000		
ECSD	0.4391	0.8975	0.8973	1.0000	
MCAP	0.6375	0.5839	0.5776	0.6358	1.0000

Source: Data Analysis (2023)

The result shows that all the independent variables have a positive association with the dependent variable of earnings per share during the period under study. Specifically, it was found that social sustainability disclosure (0.4712), environmental sustainability disclosure (0.34490), economic sustainability disclosure (0.4391), and the control variable of market capitalization (0.6375) are all positively associated with the dependent variable of earnings per share during the period under study. However, all associations are seen to be weak and thus the study failed to suspect the presence of multicollinearity.

Table 4: Regression Analysis

	Model 1 (Pool OLS)	Model 2 (Robust Regression)
CONS.	-19.275 {0.000} ***	-3.501 {0.000} ***
SOSD	16.513 {0.000} ***	1.006 {0.044} **
ENSD	-4.549 {0.117}	-1.071 {0.006} **
ECSD	-11.280 {0.029} **	0.927 {0.183}
MCAP	3.043 {0.000} ***	0.583 {0.000} ***
F-Statistics	36.42 (0.0000)	42.26 (0.0000)
R²	0.2695	0.2695
VIF	4.29	
Hetest.	636.76 {0.0000}	

Note: (1) bracket {} are p-values: (2) **, ***, implies statistical significance at 5% and 1% levels respectively

Source: Data Analysis (2023)

The table 4 shows the regression results for our study. From the table, we find that the F-statistic of the pool OLS regression of earnings per share is 36.42 with a p-value of 0.0000. The results indicate that overall, the model is fit for statistical inferences since the p-value of the F-statistics is significant at 1% level. This is further highlighted by the R-square value of 0.2695 which indicates that on the average, about 27% of the changes in earnings per share is jointly explained by the sustainability disclosure proxies employed in this study as well as the control variable. However, to further validate the estimates of the OLS regression model, the study conducted post diagnostic tests such as multicollinearity, homoscedasticity, and endogeneity.

4.3 Test of Hypotheses

Hypotheses 1: Social sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria.

The findings show that social sustainability disclosure (coeff.: 1.006; p-value: 0.044) has a positive and significant effect on the earnings per share of the under study listed manufacturing firms in

Nigeria. Specifically, the result indicates that a unit increase in social sustainability disclosure will significantly increase earnings per share by about 4% during the period under study. Hence, the null hypothesis that social sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria is rejected.

Hypotheses 2: Environmental sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria.

The study also show that environmental sustainability disclosure (coeff.: -1.070; p-value: 0.006) has a negative and significant effect on the earnings per share of the under study listed manufacturing firms in Nigeria. Specifically, the result indicates that a unit increase in environmental sustainability disclosure will significantly decrease earnings per share by about 1% during the period under study. Hence, the null hypothesis that environmental sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria is rejected.

Hypotheses 3: Economic sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria.

Finally, the findings show that economic sustainability disclosure (coeff.: 0.927; p-value: 0.183) has a positive and insignificant effect on the earnings per share of the under study listed manufacturing firms in Nigeria. Specifically, the result indicates that a unit increase in economic sustainability disclosure will insignificantly increase earnings per share by about 4% during the period under study. Hence, the null hypothesis that economic sustainability disclosure has no significant effect on the earnings per share of listed manufacturing firms in Nigeria is rejected.

4.4 Discussion of Findings and Implication

The findings showed that social sustainability disclosure has a positive and significant effect on the earnings per share of the under study listed manufacturing firms in Nigeria. Specifically, the result indicates that a unit increase in social sustainability disclosure will significantly increase earnings per share by about 4% during the period under study. This result is consistent with those of Asuquo (2012) who stated that although corporate social responsibility disclosure appears to be in its early stages in Nigeria, some firms have been recognized as being pro-active in this field while others are not. The result is consistent with those of Odetayo, Adeyemi and Sajujigbe (2014) who reported that corporate social activities increase long-term profits or survival of a firm through positive public relations and high ethical standards reduces business and legal risk which also build shareholder trust. Odetayo et al. (2014) notes that in order to ensure sustainable growth, it is necessary for a company to make positive impact on the surrounding environment, as well as on its stakeholders, such as its consumers, employees, investors, communities, and others.

The study also showed that environmental sustainability disclosure has a negative and significant effect on the earnings per share of the under study listed manufacturing firms in Nigeria. Specifically, the result indicates that a unit increase in environmental sustainability disclosure will significantly decrease earnings per share by about 1% during the period under study. This finding is in line with those of findings of Ali (2015) whose study revealed a negative effect and linked it to high cost associated with environmental sustainability reporting activities which invariably lowers the quality and quantity of these reports. Furthermore, the study find that the result from this study is consistent with the findings of Plum lee, Brown Hayes and Marshall (2015) who assert that companies who provide report on environmental performance incurs more expenses hence would perform below expectation in the long run. They noted that companies who do not report nor carry

out environmental responsibilities are likely to be surrounded with demonstrations and protests (like those prevalent in the Niger Delta area of Nigeria) and this goes a long way to hinder a free work environment which may consequently affect performance. Finally, the findings show that economic sustainability disclosure has a positive and insignificant effect on the earnings per share of the under study listed manufacturing firms in Nigeria. Specifically, the result indicates that a unit increase in economic sustainability disclosure will insignificantly increase earnings per share by about 4% during the period under study.

5. CONCLUSION AND RECOMMENDATIONS

The study examined the impact of sustainability disclosure, specifically social, environmental, and economic sustainability, on the earnings per share (EPS) of selected listed manufacturing firms in Nigeria. The findings revealed that social sustainability disclosure positively and significantly affects EPS, indicating that an increase in social sustainability disclosure leads to a significant increase in EPS. This positive relationship underscores the importance of corporate social responsibility (CSR) activities in enhancing firm performance and shareholder value. However, environmental sustainability disclosure showed a negative and significant effect on EPS, suggesting that an increase in environmental sustainability disclosure leads to a decrease in EPS. This finding aligns with prior research attributing the negative impact to the high costs associated with environmental reporting activities, which may impede firm performance in the long run. Additionally, companies engaging in environmental reporting may face protests and demonstrations, further hindering their performance. Interestingly, economic sustainability disclosure had a positive but insignificant effect on EPS, indicating that while economic sustainability disclosure may lead to a slight increase in EPS, this relationship lacks statistical significance. This finding suggests that economic sustainability disclosure alone may not significantly impact firm performance in terms of EPS.

In conclusion, the study provides valuable insights into the relationship between sustainability disclosure and firm performance among listed manufacturing firms in Nigeria. It confirms the positive impact of social sustainability disclosure on EPS, highlighting the importance of CSR activities in enhancing shareholder value. Conversely, environmental sustainability disclosure is found to have a negative effect on EPS, likely due to the associated costs and potential disruptions to business operations. Economic sustainability disclosure, while positively related to EPS, does not show statistical significance in its impact. Based on the findings, it is recommended that listed manufacturing firms in Nigeria prioritize social sustainability initiatives to enhance their financial performance. However, firms should also carefully consider the costs and potential disruptions associated with environmental sustainability reporting activities to mitigate any adverse effects on EPS. Additionally, further research is warranted to explore the nuances of economic sustainability disclosure and its impact on firm performance.

The study contributes to the existing literature by empirically examining the relationship between sustainability disclosure and firm performance in the Nigerian manufacturing sector. It reaffirms the positive impact of social sustainability disclosure on EPS, while shedding light on the potentially negative effects of environmental sustainability disclosure. Additionally, the study provides insights into the nuanced relationship between economic sustainability disclosure and firm performance, thereby expanding understanding in this area. Overall, the findings contribute to the growing body of research on corporate sustainability and its implications for firm value and performance.

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