International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 6 Issue 2, January-February 2022 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Environmental Sustainability Reporting and Financial Performance of Listed Manufacturing Firms in Nigeria

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ABSTRACT

Background: Environmental sustainability is the art or science of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development.

Aim: This study was carried out to examine the relationship between environmental sustainability reporting and financial performance of manufacturing firms in Nigeria. In order to determine the relationship between environmental sustainability reporting (ESR) and financial performance, environmental sustainability reporting was proxy using Kinder Lydenberg Domini (KLD) social-environmental performance rating system while financial performance on the hand was proxy using return on equity (ROE) and net assets per share (NAPS).

Materials and Methods: The study adopted Ex Post Facto Design and data were collected from the annual reports and accounts of consumer goods firms in Nigeria spanning from 2016-2020. The study employed OLS regression model as a statistical test tool.

Results: The findings of the study indicate that environmental sustainability reporting (ESR) has significant and positive relationship with financial performance (ROE & NAPS) of manufacturing firms in Nigeria at 5% significant level.

Conclusion: Thus, the study concludes that environmental sustainability reporting ensures firms performance in Nigeria.

Recommendation: Hence, the study recommended that the management of environmentally-sensitive firms in Nigeria should sustain and enhance environmental sustainability reporting since it has positive and significant relationship with financial performance.

KEYWORDS: *Environmental Sustainability Reporting, Financial Performance, Return on Equity, Net Assets Per Share*

How to cite this paper: Obiora Fabian. | Ijoma Rev. Sr. Mary Alice "Environmental Sustainability Reporting and Financial Performance of Listed Manufacturing Firms in Nigeria" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-2, February 2022, pp.838-847, URL: www.ijtsrd.com/papers/ijtsrd49332.pdf

IJTSRD49332

1. INTRODUCTION

Globally, it is debated that the corporate sector is largely responsible for the numerous environmental problems that have plagued the world today. Therefore, environmental sustainability practices are vital issue for consideration. The incorporation of environmental initiatives in the strategic decisions of companies is considered a potent measure to generate strategic benefits that will enhance competitive advantage and positively impact financial performance (Ameer & Othman, 2012).

As reported in the study of Endiana, Dcriyani, Adyadnya and Putra (2020), environmental impacts occur because humans tend to exploit natural resources from the environment in an excessive manner, not just maintaining the necessities of life. As a result of these human activities, the environment is damaged. Environmental damage is getting worse along with the development of industrial and technological companies. In the end, environmental damage has a negative impact on human life. Industries on the one hand, have an impact on the environment and also on the economic development of a country. Firms managing natural resources have the potential to impose negative risks on environmental aspects. For this reason, firms need to make a commitment to the environment and the social dimension as the main and inseparable part of the her operational activities.

Many corporations in developing countries are becoming conscious of their international market and are creating appreciable effort on non-financial disclosures especially as regards to environmental practices. The result of sampled industries in Nigeria shows that few companies are becoming social responsible and environmental friendly (Omaliko, Nweze & Nwadialor, 2020). However a large number of firms are still apathetic about their environmental and social responsibility as they are unaware of the connection between environmental sustainability reporting and their performance. Based on this observation, this study considered it imperative to examine the relationship between environmental sustainability reporting and performance of firms.

From the a priori expectations, there are limited empirical studies in Nigeria that have examined the relationship between corporate environmental reporting practices and corporate financial performance. A number of the studies were focused on the oil and gas sector. For example, Ifurueze, Lyndon and Bingilar (2013); Bassey, Effiok and Eton (2013) and Okafor (2018) examined the impact of environmental performance on corporate performance among oil companies in the Niger Delta States of Nigeria. Also, Nnamani, Onyekwelu and Ugwu (2017) examined the relationship between environmental disclosure and financial performance in the brewery industry in Nigeria. Others include Agbiogwu, Ihendinihu, and Okafor (2016) and Utile, Tarbo and Ikya (2017) studies were limited to 10 firms. Onyinyechi and Ihendinihu (2016) used t-test while the study by Ezeagba, John-Akamelu, and Umeoduagu (2017) is limited to the food and beverage industry in Nigeria. Hence the need for the present study to examine the relationship between environmental sustainability reporting and financial performance of manufacturing firms in Nigeria using firms quoted under industrial goods sector of Nigerian Exchange Group (NGX) as a reference point.

Also, studies that have explored on the subject of environmental sustainability reporting and financial performance in Nigeria are not only seen to be very limited but more importantly, those studies centered on traditional measures of performance such as return on equity, return on asset, earnings per share etc, with none to the best of the researcher's knowledge on market (value-based) measures of performance, as the traditional measures of performance do not take account for risk-return. Thus, inclusion of net assets per share (NAPS) as a market based measure for firm's performance becomes a necessity

Thus, this study seeks to examine the extent (if at all), to which organizations are carrying out this environmental stewardship and whether or not such reporting has an influence on their financial performance.

To achieve this purpose, the following hypotheses were formulated:

H_{01}: Environmental Sustainability Reporting has no significant relationship with Return on Equity of Manufacturing Firms in Nigeria

H_{02}: Environmental Sustainability Reporting has no significant relationship with Net Assets Per Share of Manufacturing Firms in Nigeria

2. Review of Related Literature

2.1. Environmental Sustainability Reporting

Environmental sustainability reporting otherwise known as green accounting, relates to the ability of current generation to meet its needs without necessarily harming or preventing future generations from meeting their needs. As key forces in the society, environmentally-sensitive firms have greater role to play in achieving this goal. Environmental sustainability is the art or science of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development (Sustainability Reporting Guidelines, 2011).

According to Jayanti and Gowda (2014), environmental sustainability refers to the practices engaged by firms to achieve financial performance without compromising their capacity for long term growth considering the internal and external resources. These practices are conceived within the context of operational efficiency, responsiveness to the demands of stakeholders and in the context of exploiting and improving existing sustainable competencies. Basically, the environmental sustainability relates to reduction of the impact of an organization's operation on the natural system (both living and non-living) and the ecosystems (land, air and water). This environmental input indicator relates to items such as material, energy and water while the environmental output includes emissions, effluents and waste.

Environmental sustainability reporting is the process by which management reports to the public about environmental impacts of business activities and environmental initiatives undertaken to mitigate them by disclosing the environmental information related to those activities (Chery, 2019). Environmental reporting should provide relevant information systematically and comprehensively and in accordance with the general principles for environmental reporting specified in the guidelines (Fortes, Neto, Nobre, Nobre & Queiroz, 2015).

2.1.1. Performance

According to Erikie and Osagie (2017), financial Performance is the measuring of results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, etc. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Omaliko & Okpala, 2020).

Also known as profitability, corporate performance is performance measurement by which organizational as well as management ability and efficiency can be measured**.** According to Dwivedi, 2002), there are two kinds of performance, financial performance and non-financial performance; and financial performance emphasizes on variables related directly to financial report. Dwivedi (2002) also established that financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.

For the purpose of this study, both accounting based measure (Return on Equity) and market based measure (Net Assets Per Share) were used since most previous studies used only accounting based measure (traditional measure) for performance which do not take account for risk-return.

2.2. Theoretical Framework

The theoretical framework which gives the meaning of a word in terms of the theory on green accounting disclosures and sustainability established in this study is Stakeholders Theory (ST). It assumes both knowledge and acceptance of this theory that this research work depends upon.

2.2.1. The Stakeholders' Theory

This theory was propounded by Freeman in the year 1983. The stakeholders' theory proposed an increased level of environmental awareness which creates the need for companies to manage these interests (groups' interest) in order for them to become environmentally friendly towards the environment in which the business is domiciled. The main concern of the stakeholders' theory in environmental accounting is to address the environmental disclosure elements and valuation and its inclusion in the financial statements for external users consumption. The theory illustrates that the firm has one and only one goal – to satisfy the desires of shareholders by making profits. However, profit may not be attainable if the environment in which the business operates is neglected.

As pointed out in the study of Omaliko, Nweze and Nwadialor (2020), stakeholders' theory proposed an increased level of environmental awareness which creates the need for companies to manage these interests (groups' interest) in order for them to become environmentally friendly towards the environment in which the business is domiciled. The main concern of the stakeholders' theory in environmental accounting is to address the environmental disclosure elements and valuation and its inclusion in the financial statements for external users consumption.

Thus, the study is anchored on stakeholders' theory, as its concern is to encourage business managers to carry out environmental practices which the non-financial stakeholders consider very important so as to maximize stakeholders' value as well as minimize environmental costs.

2.3. Empirical Review

Raymond, John, Rachael and Ben (2016) in their work, assessed the effect of sustainability accounting measure on the performance of corporate organizations in Nigeria. Ex post facto research design and time series data were adopted. Data for study was collected from annual reports and accounts of the company in Nigeria. Formulated hypotheses were tested using Regression Analysis with aid of SPSS Version 20.0. Based on the analysis, the study found that environmental cost does not impact positively on revenue of corporate organizations in Nigeria, also that environmental cost impact positively on profit generation of corporate organizations in Nigeria. Based on this, the researcher recommends that Indigenous and multinational firms should ensure that strict policies as regards environmental accounting are adhered to, in order to enable stable organizational performance.

Onipe (2018) examined the influence of environmental accounting on firm financial performance in Nigeria. Return on assets was used to proxy firm financial performance while environmental disclosure practices were measured by green reporting index, which is a product of environmental reporting quality and quantity. Data in respect of return on assets were extracted as a ratio of earnings before taxes divided by total assets, while data on the quality and quantity of environmental reporting were extracted through content analysis from the annual reports and accounts of the firms. Descriptive (mean, standard deviation, minimum and maximum mean) and inferential statistics (correlation and regression) were used to analyze the data. The correlation results showed that environmental reporting practices and financial performance have positive and significant relationship. The regression results showed that environmental reporting has positive and significant effect on financial performance. As a result, the study concluded that environmental disclosure practices are important considerations in determination of corporate financial performance. The study therefore recommended among others that environmentally-sensitive firms should sustain and enhance reporting of their environmentally friendly activities since they enhance financial performance.

Oti, and Mbu-Ogar, (2018) examined the impact of environmental and social disclosure on the financial performance of quoted oil and gas companies in Nigeria. Time series data for five years were collected and analyzed using the ordinary least square regression technique. Results from the statistical analysis revealed that disclosure on employee health and safety and community development do not significantly affect financial performance while disclosure on waste management had a positive and significant effect on firm's financial performance. The study recommended that oil and gas companies should constantly review their waste management strategy and employ bespoke technology in waste management to mitigate their impact on the environment. Furthermore, Oil and gas companies should improve on employee health and safety as part of their mission and vision statement for enhanced firm value. Companies should also ensure sustained development of their host communities to avoid hostility by stakeholder groups which will have negative effect on its operations and in turn affects performance.

In line with the findings above, Omaliko and Okpala (2020) on environmental disclosures and dividend payout of firms in Nigeria employed regression model and found that environmental friendly firms pay higher dividend.

Ordu and Amah (2021) investigated the relationship between sustainability accounting and performance of selected quoted oil and gas companies in within the period of 2012-2017. Specifically it examined the relationship between environmental accounting and return on assets of quoted oil and gas companies in Nigeria. Explanatory and correlational design was adopted for the study while secondary data was utilized for the study. Data was gathered from annual reports and accounts of the companies available on their websites and from Nigerian Stock Exchange (various years). The data collected was from the period 2012 – 2017. The Annual reports includes annual financial statements, annual sustainability reports of the quoted oil firms, annual returns submitted at Nigerian Stock Exchange for the years under study. Regression was used for data analysis and testing of the hypothesis. The result of the study showed that there is no significant relationship between environmental accounting and return on assets of the oil and gas companies in Nigeria under study. The study therefore recommends that amongst others that the management of the oil and gas companies should channel efforts towards engaging in adequate environmental accounting disclosure as a way of increasing stakeholders trust and showing more transparency in their operations. This could in turn lead to achieving better financial performance.

This agrees with the findings of Nwaiwu and Oluka, (2018) study was on environmental cost disclosure and financial performance of oil and gas in Nigeria. This study empirically examines the effect of environmental cost disclosure and financial performance measures of quoted oil and gas companies in Nigeria. Time series data were collected from annual financial reporting and economic review of Central Bank of Nigeria; Pearson product moment coefficient of correlation and multiple linear regression analysis with the aid of special package for social sciences (SPSS) version 22. The econometric results reviewed adequate disclosure on environmental cost, compliance to corporate environmental regulations have positive significant effect on financial performance measures. Thus the study recommended regulatory enforcement for adequate environmental cost disclosure and proper reporting. Management of oil and gas companies in Nigeria should develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere for improved corporate performance.

Onyali, Okafor and Egolum (2014) analyzed the nature and quality of environmental information disclosure practices using 2013 annual reports of three manufacturing firms in Nigeria. Using regression model, the findings of the study indicate that the environmental disclosure practices of firms in Nigeria are informal and contains little or no quantifiable data.

The findings above is not in tandem with the findings of Ahmad, Simon and Mohammad (2017) who examined the impact of environmental disclosure on performance of cement and brewery companies in Nigeria. Using regression model, the findings of the study indicate that larger companies disclosed more environmental information because firm size influence the extent of environmental disclosure. Return on Asset (ROA), Return on Equity (ROE), and Earnings per Share (EPS) were used as proxies for measuring performance. Also, the empirical result indicates that quantitative environmental disclosure has a positive but insignificant effect on ROA and EPS respectively.

Osemene, Kolawole and Oyelakun (2016) on the same note considered the effects of environmental accounting practices and sustainable development on the performance of Nigerian listed manufacturing companies. Using regression model, the study found a significant positive relationship between environmental accounting and returns on equity (ROE) of thirty-six quoted companies randomly selected in Nigeria. Also, Huey Shi Tho and Boon Heng Teh (2016) examined the relationship between environmental disclosure and financial performance of public listed companies in Malaysia. Content analysis approach was adopted to determine the quantity and quality of environmental disclosures in the annual reports of 100 companies listed on the Main board of Bursa Sarhan Malaysia for the year 2009 till 2013.The result showed that only the quality of the environmental information has positive relationship with companies' earnings per share (EPS).

Sanusi and Sanusi (2019) examined the environmental sustainability reporting practices among quoted manufacturing firms in Nigeria and its effects on their financial performances. The study employs survey research using panel data for the period of 2010 to 2015. This study adopts content analysis, descriptive, and inferential statistics as methods of analysis. The evidence provided in this study, based on the empirical findings, shows a fair representation of the popularity of environmental sustainability reporting among manufacturing firms in Nigeria, though majority of the manufacturing firms reported very low levels of environmental disclosures. Environmental sustainability reporting indexes have positive effects on the measures of financial performance (earning per share, revenue growth, and return on assets). Thus, the study recommends that at annual general meetings, shareholders should compel the management of their companies to have well-structured environmental practices.

Dike and Micah (2018) examined environmental accounting practices and sustainable development in Nigeria. Data for the study was obtained from 34 companies with environmental accounting practices. The study was descriptive in design. Using OLS, it was found that the environment is not favorable to manufacturing firms which have negative effect on sustainable development. Sequel to the finding above, the study recommended that firms should establish efficient production of products with reasonable rates without harmful effect on sustainable development, will result into the reduction of environmental effect and have positive effect to increasing profitability.

Okoye and Ndum (2020) assessed the effect of sustainability reporting on economic value added of manufacturing firms listed on Nigeria Stock Exchange. Twenty one (21) listed manufacturing firms constituted the sample size of this study between 2008 and 2019. *Ex-Post facto* research design and content analysis were adopted while secondary data were extracted from the annual reports and accounts of the sampled firms. The study employed descriptive statistics and inferential statistics using Pearson correlation, Panel Least Square (PLS) regression analysis, granger causality test and Hausman test. Findings from the empirical analysis showed that economic sustainability reporting, social sustainability reporting, environmental sustainability reporting and sustainability governance reporting exerted a significant positive effect on economic value added, of listed manufacturing firms in Nigeria at 5% level of significance respectively. It was recommended inter alia that corporate entities in Nigeria should invest in sustainability activities in all its ramifications in order to boost the image/reputation of the firms thereby increasing their returns.

3. Methodology

This study adopts *Ex-Post Facto Design.* Secondary data was used which already exists and cannot be manipulated or controlled. The population of the study consists of the entire 21 firms quoted under Consumer Goods Sector of Nigerian Exchange Group (NGX) as at 2022 business list covering from 2016-2020. The use of quoted Consumer Goods Sector Firms on Nigerian Exchange Group (NGX) could be justified based on the fact that only few studies had concentered on environmental sustainability reporting and firm performance with reference to Consumer Goods Sector of NGX especially in the developed economies to the best of our knowledge. Out of 21 firms that formed our sample size, 2 firms have empty financial information within the period under study (*Golden Guinea Breweries Plc and Multi-Trex Integrated Foods Plc)* which was removed. On the other hand, BUA Foods Plc was dropped as it was listed on the floor of Nigerian Exchange Group (NGX) as at 5th January 2022. The selected firms range from Cadbury Nigeria Plc, Champion Breweries Plc, Dangote Sugar Refinery Plc, DN Tyre & Rubber Plc, Flour Mills Nig Plc, Guiness Nigeria Plc, Honeywell Flour Plc, International Breweries Plc, Mnichols Plc, N Nigeria Flour Plc, Nascon Allied Industries Plc, Nestle Nigeria Plc, Nigerian Breweries Plc, Nigerian Enamelware Plc, P Z Cussons Nigeria Plc, Unilever Nigeria Plc, Union Dicon Salt Plc to Vita foam Nigeria Plc. Based on this, a total of 18 firms formed our sample size with 90 observations. The data were obtained from the Annual Reports and Accounts of the sampled firms. OLS Model was employed to examine the relationship between environmental sustainability reporting measured using Kinder Lydenberg Domini (KLD) social-environmental performance (SEP) rating system and firm performance (ROE & NAPS). The collected data were analyzed with the aid of STATA 15.

3.1. Operationalization and Measurement of Variables

3.1.1. Dependent Variable

The dependent variable in this study is Firms' Performance and it was proxy and measured using Return on Equity and Net Assets Per Share. This is in-line with the a priori expectations of Omaliko, Okeke and Obiora (2020), Omaliko and Okpala, Brockman (2015), Kanwal, Khanam, Nasreen and Hameed (2013), Nahiba (2017) etc. This is shown below on the table as thus:

Table 1: Measurement for Dependent Variables

Variable	Measurements	A priori expectation
Return on Equity	Net Profit After Tax/Equity	Omaliko, Okeke and Obiora (2020), Omaliko and Okpala (2020), Kanwal, Khanam, Nasreen and Hameed (2013)
Net Assets Per Share	NA/Paid up Capital	Nahiba (2017), Brockman (2015) etc

Source: Empirical Survey (2022)

3.1.2. Independent Variable

Environmental sustainability reporting (ESR) was measured using Kinder Lydenberg Domini (KLD) social-environmental performance (SEP) rating system and the content analysis method of data collection as used by Uwuigbe (2011), Omaliko and Okpala (2020), Omaliko, Nwadialor and Nweze (2020). For this purpose, a score of (1) was awarded if an item was reported; otherwise a score of (0) was awarded ***(See Appendix 1).*** Consequently, a firm could score a maximum of 20 points and a minimum of 0. The formula for calculating the reporting scores by using these 20 attributes ***(See Appendix 1)*** is expressed in a functional form below:

$$\mathbf{RS} = \sum_{i=1}^{20} \mathbf{di}$$

Where:
RS = Reporting Score
di = 1 if the item is reported and 0 if the item is not reported
i = 1, 2, 3.... 20.

3.2. Model Specification and Justification

The study adapted and modified the model of Ordu and Amah (2021) in examining the relationship which exists between environmental sustainability and performance of manufacturing firms in Nigeria as shown below;

Ordu and Amah (2021): $\mathbf{ROR = \beta_0 + \beta_1 ENVSPEND + \varepsilon}$

The modified model for the study is shown as thus

$$\mathbf{ROE = \beta_0 + \beta_1 SEP + \varepsilon}$$

$$\mathbf{NAPS = \beta_0 + \beta_1 SEP + \varepsilon}$$

Where:

ROE = Return on Equity

NAPS = Net Assets Per Share

SEP = Social and Environmental Performance

ε = error term

4. Data Analysis and Results

Table 2: Descriptive Statistics

	ROE	NAPS	SEP
Mean	2.071333	1.902667	1.791111
Std. Dev.	.5889091	.4398181	1.034641
Maximum	3.5	3.1	7.3
Minimum	.8	.9	0
Observations	90	90	90

Source: Researcher's Computation (2022).

Table 2 shows that on the average, in a 5-year period (2016-2020), the listed consumer goods firms in Nigeria were characterized by positive return on equity (ROE) and net assets per share (NAPS) value of 2.071333 and 1.902667 respectively. This is an indication that the entire consumer goods firms in Nigeria have positive return on equity (ROE) and net assets per share (NAPS) value with a standard deviation value of .5889091 and .4398181 respectively. The average social-environmental performance (SEP) for the sampled firms was 1.791111 with a standard deviation value of 1.034641. This means that firms with SEP values of 1.791111 and above are sustainable and environmental friendly. There is also a high variation in maximum and minimum values of SEP which stood at 7.3 and 0 respectively. This wide variation in SEP values among the sampled firms justifies the need for this study as the researcher assumes that firms with higher SEP values are more sustainable than those firms with low SEP values.

4.1. Test of Hypothesis

Table 3: Result on the Relationship between Environmental Sustainability Reporting and Return on Equity (ROE) of Consumer Goods Firms in Nigeria

```
Source | SS df MS                                      Number of obs = 90
-------------+------------------------------          F (1, 88) = 0.91
Model |.3155570572 1 .315557057                       Prob > F = 0.0340
Residual | 30.5508823 88 .347169118                   R-squared = 0.3430
-------------+------------------------------          Adj R-squared = 0.2102
Total | 10.7326400 89 .275195896                      Root MSE = 0.5892
------------------------------------------------------------------------------
ROE | Coef.      Std. Err.    t        P>|t|      [95% Conf. Interval]
-------------+----------------------------------------------------------------
SEP | .0575512   .0603651     0.95     0.034      .0624118 .1775141
_cons | 1.968253 .1246896     15.79    0.000      1.720458 2.216047
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Source: Result output from STATA 15.

Table 4: Result on the Relationship between Environmental Sustainability Reporting and Net Assets Per Share (NAPS) of Consumer Goods Firms in Nigeria

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Source | SS df MS                                      Number of obs = 90
-------------+------------------------------          F (1, 88) = 1.42
Model | .274091264 1 .274091264                       Prob > F = 0.0230
Residual | 16.9420684 88 .192523505                   R-squared = 0.3785
-------------+------------------------------          Adj R-squared = 0.3135
Total | 17.2161597 89 .193439997                      Root MSE = 0.4387
------------------------------------------------------------------------------
NAPS | Coef.     Std. Err.    t        P>|t|      [95% Conf. Interval]
-------------+----------------------------------------------------------------
SEP | .0536368   .0449528     1.19     0.023      .0356975 .1429711
_cons | 1.806597 .0928542     19.46    0.000      1.622069 1.991125
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Source: Result output from STATA 15.

4.2. Discussion of Findings

The result of the analysis of the study using OLS Model is expressed as follows:

H_{01}: Environmental Sustainability Reporting has no significant relationship with Return on Equity of Manufacturing Firms in Nigeria

In view of the above analysis as shown on table 3, the result shows that there is a significant and positive relationship between environmental sustainability reporting and return on equity of listed consumer goods firms in Nigeria. With a P-value of 0.034, the test is considered statistically significant at 5% level. This could be verified with the coefficient of correlation of 5.7% which indicates that environmental sustainability reporting ensures corporate performance by 5.7%. Thus implies that firms' that comply with environmental laws are more sustainable since such firms' have the support of the environment. Based on this, we rejected the null hypothesis and accepted alternate hypothesis which contends that environmental sustainability reporting has significant relationship with return on equity of manufacturing firms in Nigeria. The implication of this is that environmental friendly firms make higher returns.

This agrees with the a priori expectations of Dike and Micah (2018), Okoye and Ndum (2020) who found significant and positive relationship between environmental disclosures and firms' performance. However, the finding of this study is not in agreement with the study of Ordu and Amah (2021) who found that environmental disclosures is negatively associated with firm performance.

H_{02}: Environmental Sustainability Reporting has no significant relationship with Net Assets Per Share of Manufacturing Firms in Nigeria

In view of the above analysis as shown on table 4, the result shows that there is a significant and positive relationship between environmental sustainability reporting and net assets per share of listed consumer goods firms in Nigeria. With a P-value of 0.023, the test is considered statistically significant at 5% level. This could be verified with the coefficient of correlation of 0.053% which indicates that environmental sustainability reporting ensures corporate performance by 5.3%. Based on this, we rejected the null hypothesis and accepted alternate hypothesis which contends that environmental sustainability reporting has significant relationship with net assets per share of manufacturing firms in Nigeria. The implication of this is that firms' that comply with environmental laws make higher returns since such firms' have the support of the environment.

This agrees with the study of Sanusi and Sanusi (2019), Nwaiwu and Oluka (2018) who found that environmental disclosures is linearly and positively related to firms' performance. On the contrary, Onyali, Okafor and Egolum (2014) found an insignificant relationship between the variables.

5. Conclusion

The study found that social-environmental performance (SEP) has joint effect on firms' performance (ROE & NAPS). Based on this, the study concludes that environmental sustainability reporting ensures the performance of listed manufacturing firms in Nigeria.

5.1. Recommendation

Based on findings of the study, the following recommendations are suggested:

1. The study recommends that the management of environmentally-sensitive firms in Nigeria should sustain and enhance environmental sustainability reporting since it has positive and significant effect on financial performance.
2. Government should be concerned about the great environmental impacts manufacturing firms have on the environment in terms of emissions, wastes, effluents, and resource consumption by giving incentives to firms. With this development, every corporate organization would indulge on environmental practices and thus, the sustainability of such firm is ensured.

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Appendix 1

Table 5: Twenty Testable Social-Environmental Performance Items

S/N	Environmental	Energy	Research & Development	Employee Health and Safety
1	Environmental Pollution	Firms Energy Policies	Investment in Research on Renewal Technology	Disclosing Accident Statistics
2	Conservation of Natural Resources	Disclosing Energy Savings	Environmental Education	Reducing or eliminating Pollutants, Irritants, or Hazards in the work Environment
3	Environmental Management/ Environmental Policies	Reduction in energy Consumption	Environmental Research	Promoting Employee Safety and Physical or Mental Health
4	Recycling Plant of Waste Products	Received Awards or Penalties	Waste Management/Reduction and Recycling Technology	Disclosing Benefits from increased Health and safety Expenditure
5	Air Emission Information	Disclosing increased Energy Efficiency Products	Research on New Methods of Production	Complying with Health and Safety Standards and Regulations and Establishment of Educational Institution

Source: Adapted from (Hackston & Milne, 1996 & Adler, 1999)