Environmental Sustainability Reporting and Financial Performance of Listed Consumer Goods Firms in Nigeria

Akwuobi, Bridget Udekwesili
Department of Accountancy
Nnamdi Azikiwe University, Awka
Anambra State, Nigeria

D.O.I: 10.56201/ijebm.v8.no5.2022.pg1.16

ABSTRACT

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. This study was carried out to examine the relationship between environmental sustainability reporting and financial performance of consumer goods 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), net assets per share (NAPS) and return on assets (ROA). 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. The findings of the study indicate that environmental sustainability reporting (ESR) has significant and positive relationship with financial performance (ROE, NAPS & ROA) of consumer goods firms in Nigeria at 5% significant level. Thus, the study concludes that environmental sustainability reporting ensures firms performance in Nigeria. Thus, 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.

Keyword: *Environmental Sustainability Reporting, Return on Assets, Return on Equity, Net Assets Per Share.*

1.0 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).

The use of natural resources and continuous emissions of greenhouse gases by industries around the globe are on the increase. This is traceable to industrial revolution of late 18th century where economic activities in many areas migrated from agriculture to manufacturing. Production shifted from its traditional locations in the home and thatched workshops to factories. The industrial revolutions lead to economic improvement for most people in the industrialized society. These economic developments are not without costs. Industrialization which required the use of natural resources including energy brought about factory pollutant and greater land use, which harmed the natural environment (Dibua & Onwuchekwa, 2015). This is evidenced in environmental degradation and atmospheric pollution generally experienced in the world and particularly in Nigeria today. However, sustainable development as is generally known focuses on the creation of wealth and prosperity, whilst considering the true importance of social and environmental aspects, allowing business and public organizations to meet triple bottom line in sustainable management (Eze, Nweze & Enekwe, 2016).

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 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 consumer goods firms in Nigeria using firms quoted under consumer 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. Hence, the need for the present study.

To achieve this purpose, the following hypotheses were formulated:

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

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

H_{03}: Environmental Sustainability Reporting has no significant relationship with Return on Assets of Consumer Goods Firms in Nigeria.

2.0 Review of Related Literature

2.1.1 Environmental Sustainability Reporting

Environmental Sustainability Reporting is a report on the control of emissions and effluents into environment. It constitutes the use of materials, processes, or practices to reduce, minimize, or eliminate the creation of pollutants or wastes. It includes practices that reduce the use of toxic or hazardous materials, energy, water, and other resources (Ijeoma, 2015).

It 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).

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).

2.1.2 Performance

Malik and Okere (2020) viewed financial performance as a measure that evaluate the financial position of a company over a specified time period to know how efficiently is using its resources to generate income. However, this definition prompted the consideration of alternative measures of performance so that the response on environmental and social sustainability to firms performance (FP) can be statistically established and generalized rather than relying on environmental and social behaviour to a particular performance measure.

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 & Return on Assets) 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

Omaliko, Uzodimma and Ogbuagu (2018) examined the comparative analysis of environmental disclosure in oil and gas industries in Nigeria. The study compared the environmental disclosure requirements of Global Reporting Initiatives (GRI) with the environmental information disclosed in the annual report of five Listed Oil and Gas firms in Nigeria for the period of five years (2012-2016). The Content Analysis research design was adopted. Secondary data for the study were obtained from the published audited financial statements of the five Listed Oil and Gas firms in Nigerian for the period under review from which disclosure compliance index was developed. The statistical tools employed were the compliance index and the Friedman Analysis of Variance (ANOVA). The findings of the study indicate that there is a significant and positive relationship between the firms' compliance and Global Reporting Initiative (GRI) disclosure requirements among the sampled oil and gas firms in Nigeria. The study however recommends among others that the accounting standard setters (IFRS) should draft a more comprehensive framework for reporting environmental concerns, specifically for the oil and gas industries because of their high propensity to environmental degradation and pollution, and also the high impact of their industrial activities on the environment.

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.

Another study was also conducted by Obara, and Nangih, (2017) on the extent to which accounting practices affect the profitability of Oil and Gas companies in Nigeria, particularly those in the upstream sector. The specific objectives were: to determine the effect of accounting practices on Return on Assets (ROA) and Return on Capital Employed (ROCE) of Oil and Gas Companies in Nigeria. The Researchers used Stratified Sampling Design approach. The target population comprised of Oil and Gas Companies in Nigeria. A total of 84 respondents were drawn from the population. Both primary and secondary data were used in the study. Primary Data were collected using questionnaires drawn using the Likert's Scale with five points ranging from very great extent to no extent, while secondary data were sourced from already published materials. Hypotheses were were analyzed using SPSS Software and other Descriptive statistical tools such as; percentages and tables. The result of the study showed that accounting practices had a significant relationship with performance of Oil and Gas Companies, particularly, the Return on Assets and Return on Capital Employed. It was recommended that proper and best accounting practices should be adopted by Oil and Gas companies to ensure better performance on one hand and fair, transparent and reliable financial reports on the other hand.

Nwaiwu and Oluka, (2018) 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.

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.

Omaliko, Nweze and Nwadialor (2020) empirically investigated the effect of social and environmental disclosures on performance of non-financial firms in Nigeria. The study is vital as it portrays the extent to which social and environmental disclosures influence firms' performance. In order to determine the relationship between social and environmental disclosures and firms performance, some key proxy variables were used in the study, namely corporate social responsibility disclosure and environmental disclosure; firms' performance is however represented by NAPS. Two hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using panel regression model. The research design used is Ex Post Facto design and data for the study were obtained from the NSE Factbook and published annual financial reports of the entire 112 non financial firms quoted on NSE with data spanning from 2011-2018. The findings generally indicate that corporate social and environmental disclosures have significantly influenced firms' performance at 5% significant level. Based on this, the study concludes that social and environmental disclosures have positively improved firms performance over the years. The study however suggests that firms should have positive disposition towards social and environmental friendly practices and also disclose more of these information in their annual reports as the level of these information disclosures have exerted significant influence on firms' performance over the years.

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.

3.0 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, Net Assets Per Share an Return on Assets. This is in-line with the a priori expectations of Omaliko, Okeke and Obiora (2021), Omaliko and Okpala (2020), 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 (2021), Obiora, Omaliko and Okeke (2022).
Net Assets Per Share	NA/Paid up Capital	Nahiba (2017), Brockman (2015) etc

Return on Assets	Net Profit After Tax/Assets	Omaliko and Okpala (2020), Kanwal, Khanam, Nasreen and Hameed (2013)

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 (2022), 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:

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

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

In line with the previous researches, the present developed a model fit to capture the effect of environmental sustainability reporting on performance of firms in Nigeria.

The functional model designed for the study is shown below as thus:

ROE = F(SEP)

NAPS = F(SEP)

ROA= F(SEP)

The econometric form of the regression developed for the study is expressed as thus:

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

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

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

Where:

ROE = Return on Equity
NAPS = Net Assets Per Share
ROA = Return on Assets
SEP = Social and Environmental Performance
ε = error term

4.0: Data Analysis and Results

Table 2: Descriptive Statistics

	ROE	NAPS	ROA	SEP
Mean	3.098722	1.08546	2.083774	1.954872
Std. Dev.	.8567832	.068533	.0567345	1.008726
Maximum	2.6	2.1	2.8	8.2
Minimum	.4	.5	.4	0
Observations	90	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), net assets per share (NAPS) and return on assets value of 3.098722, 1.08546 and 2.083774 respectively. This is an indication that the entire consumer goods firms in Nigeria have positive return on equity (ROE), net assets per share (NAPS) and return on assets (ROA) value with a standard deviation value of .0.8567832, 0.068533 and 0.0567345 respectively. The average social-environmental performance (SEP) for the sampled firms was 1.954872 with a standard deviation value of 1.008726. This means that firms with SEP values of 1.008726 and above are sustainable and environmental friendly. There is also a high variation in maximum and minimum values of SEP which stood at 8.2 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
Model	.9928762782	1	.992876278
Residual	30.7891375	88	.349876563
Total	31.7820137	89	.357101277

Statistic	Value
Number of obs	90
F (1, 88)	2.84
Prob > F	0.0030
R-squared	0.7696
Adj R-squared	0.7209
Root MSE	0.6789

ROE	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
SEP	.2860863	.0756738	3.780	0.004	.0687643	.0736233
_cons	1.825697	.4635676	3.938	0.000	1.078528	2.892736

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

Source	SS	df	MS
Model	.898736332	1	.898736332
Residual	12.0826322	88	.212302638
Total	12.9813685	89	.145858073

Statistic	Value
Number of obs	90
F (1, 88)	4.23
Prob > F	0.0000
R-squared	0.8632
Adj R-squared	0.8194
Root MSE	0.5928

NAPS	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
SEP	.0838764	.0298736	2.807	0.023	.0987335	.2983745
_cons	1.087633	.2465368	4.411	0.000	1.598762	1.098765

Source: Result output from STATA 15.

Table 5: Result on the Relationship between Environmental Sustainability Reporting and Return on Assets (ROA) of Consumer Goods Firms in Nigeria

Source	SS	df	MS
Model	.472638983	1	.472638983
Residual	15.9827633	88	.181622310
Total	17.2161597	89	.193439997

Number of obs = 90
F (1, 88) = 2.602
Prob > F = 0.0020
R-squared = 0.7645
Adj R-squared = 0.7209
Root MSE = 0.0872

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
SEP	.2683763	.0787464	3.408	0.001	.0093874	.67236733
_cons	1.487634	.2098734	7.088	0.000	1.598273	1.998343

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 Consumer Goods 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 0.004, the test is considered statistically significant at 5% level. This could be verified with the coefficient of correlation of 0.286% which indicates that environmental sustainability reporting ensures corporate performance by 28.6%. 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 consumer goods firms in Nigeria. The implication of this is that environmental friendly firms make higher returns.

H_{02}: Environmental Sustainability Reporting has no significant relationship with Net Assets Per Share of Consumer Goods 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 0.083% which indicates that environmental sustainability reporting ensures corporate performance by 8.3%. 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 consumer goods 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.

H_{03}: Environmental Sustainability Reporting has no significant relationship with Return on Assets of Consumer Goods Firms in Nigeria. In view of the above analysis as shown on table 5, the result shows that there is a significant and positive relationship between environmental sustainability reporting and return on assets of listed consumer goods firms in Nigeria. With a P-value of 0.001, the test is considered statistically significant at 5% level. This could be verified with the coefficient of correlation of 0.268% which indicates that environmental sustainability reporting ensures corporate performance by 26.8%. Based on this, we rejected the null hypothesis and accepted alternate hypothesis which contends that environmental sustainability reporting has significant relationship with return on assets of consumer goods firms in Nigeria. The implication of this is that environmental friendly firms make higher returns.

5.1 Conclusion

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

5.2: Recommendation

Based on findings of the study, it was recommended 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. Also, there should also be an increase in investment and spending on corporate social responsibility so as to ensure that it's positive and significant influence on the financial performance of consumer goods firms is sustained over time.

References

Agbiogwu, A. A. Ihendinihu, J. U., & Okafor, M. C. (2016). Impact of environmental and social costs on performance of Nigerian manufacturing companies. *International Journal of Economics and Finance, 8*(9), 173-180.

Ameer, R. & Othman, R. (2012). Sustainability practices and corporate financial performance: A study based on the top global corporations. *Journal of Business Ethics*, *108*(1), 61-79.

Bassey, B. E., Effiok, S. O., & Eton, O. E. (2013). The impact of environmental accounting and reporting on organizational performance of selected oil and gas companies in Niger Delta Region of Nigeria. *Research Journal of Finance and Accounting*, *4*(3), 57 – 73.

Chery, K. (2019). Elucidating the relationship between sustainability reporting and organizational change management for sustainability. *J. Clean. Prod*. 125, 168–188.

Dibua, N. O., & Onwuchekwa, J. C. (2015). Determinants of environmental disclosures in Nigeria: A case study of oil and gas companies. *International Journal of Finance and Accounting, 4*(3), 145-152.

Dwivedi (2002). Determinants of weaknesses in internal control over financial reporting and the

implications for earnings quality. Working paper.

Endiana, M., Dicriyani, M., Adiyadnya, P., & Putra, S. (2020). The effect of green accounting on corporate sustainability and financial performance. *Journal of Asian Finance, Economics and Business, 7*(12), 731-738

Eriki, P. O. & Osagie, O. G. (2017). Capita) structure and bank's performance in Nigeria, *Management Sciences Review*, 5(1& 2), 7-22

Eze, J. C., Nweze, A. U & Enekwe, C. I. (2016). The effects of environmental accounting on a developing nation: Nigerian experience. *European Journal of Accounting, Auditing and Finance Research, 4*(1), 17-27.

Ezeagba, C., Chitom-Rachael, J., & Chiamaka, U. (2017). 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

Forte, L., Neto, J., Nobre, F., Nobre, L., Queiroz, D. (2015). Determinants of voluntary disclosure: A study in the Brazilian baking sector. *Financ. Contab*, 5, 23–37.

Freeman, H. (1983). *Stakeholders theory*; theoretical perspective, New York: Harper and Row Inc.

Ifurueze, M. S. K, Lyndon, M. & Bingilar, M. (2013). Impact of environmental cost on corporate performance of oil companies in Niger Delta States of Nigeria. *Journal of Business & Management 2*(2), 23-30.

Ijeoma, N. B. (2015). Evaluation of companies environmental practice based in Nigeria. *Social and Basic Sciences Research Review, 3*(7), 349-364.

Kanwal, M., Khanam F., Nasreen S., & Hameed S. (2013). Impact of corporate social responsibility on the firm's financial performance. *IOSR Journal of Business and Management*, *14*(5) 67-74.

Malik, S., & Okere, W. (2020). The relationship between corporate social responsibility, environmental investments and financial performance: Evidence from manufacturing companies. *Environmental Science and Pollution Research 27*(1)

Nnamani, J. N, Onyekwelu, U. L., & Ugwu, O. K. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research 5*(1), 1-15

Nwaiwu, J. N. & Oluka, N. O. (2018). Environmental cost disclosure and financial performance of oil and gas in Nigeria**.** *International Journal of Advanced Academic Research Financial Management 4*(2),1-23.

Obara, L., & Nangih, E. (2017). Tax compliance barriers and internally generated revenue in Nigeria: Empirical from small and medium enterprises in Portharcourt Metropolis. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 7*(4)

Obiora, F., Omaliko, E., & Okeke, C. (2022). Effect of e-naira digital currency on financial performance of listed deposit money banks in Nigeria. *International Journal of Trend in*

Scientific Research and Development (IJTSRD), 6(2), 222-229

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.

Okoye, E., & Ndum, N. (2020). Effect of sustainability reporting on economic value added of manufacturing firms listed on Nigerian Stock Exchange. *Journal of Economic, Management and Trade, 26*(10), 15-33

Omaliko, E., & Nwadialor, E., & Nweze, A. (2020). Effect of non-financial disclosures on performance of non-financial firms in Nigeria. *Journal of Accounting and Financial Management, 6*(1), 16-39

Omaliko, E., & Nweze, A., & Nwadialor, E. (2020). Effect of social and environmental disclosures on performance of non-financial firms in Nigeria. *Journal of Accounting and Financial Management, 6*(1), 40-58

Omaliko, E., & Okpala, A. (2020). Effect of environmental disclosures on dividend payout of firms in Nigeria. *International Journal of Banking and Finance Research, 6*(3), 14-28

Omaliko, E., & Okpala, E. (2020). Effect of financing mix on financial performance of health care firms in Nigeria. *International Journal of Banking and Finance Research, 6*(3), 63-77

Omaliko, E., & Okpala, E. (2022). Tax aggressiveness and sustainability of listed oil and gas firms in Nigeria; Does firm size matter? *International Journal of Economics and Business Management, 8*(2), 48-60

Omaliko, E., Okeke, P., & Obiora, F. (2021). Impact of covid-19 pandemic on liquidity and profitability of firms in Nigeria. *International Journal of Academic Research in Business and Social Sciences, 11(*3), 1331-1344

Omaliko, E., Uzodimma, A., & Ogbuagu, N. (2018). Comparative analysis of environmental disclosures in oil and gas industries in Nigeria: A study of selected oil and gas industries on the Nigerian stock exchange. *World Educators Forum, 10*(1), 1-13

Onipe, A. (2018). Environmental reporting practices in Nigeria: Are clouds darker or fairer in the manufacturing industry. *International Journal of Social Sciences and Humanities Studies, 11*(2), 39-60

Onyinyechi, O. C., & Ihendinihu, J. U. (2016). Impact of environmental and corporate social responsibility accounting on organizational financial performance: Evidence from selected listed firms in Nigerian Stock Exchange. *Journal of Emerging Trends in Economics and Management Sciences*, *7*(5), 291-306.

Ordu, P., Amah, C. (2021). Environmental accounting and financial performance of oil and gas companies in Nigeria. *International Journal of Innovative Finance and Economics Research, 9*(1), 182-197

Sustainability reporting guidelines (2011). Environment disclosure requirements

Uwigbe U. (2011). Corporate environmental reporting practices: A comparative study of Nigerian and South African firms. *PhD Thesis, Covenant University.*

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)