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

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Abstract

This study examines the effect of environmental reporting on financial performance of listed Nigerian industrial and consumer goods firms for the period of ten (10) years from 2012 to 2021. The population of the study comprises forty-two (42) listed industrial and consumer goods firms in Nigeria. Eleven (11) firms were selected as the study sample size, which comprises 5 industrial goods and 6 consumer goods firms. The remaining 31 firms were filtered out, because they did not report their environmental disclosure throughout the period of this study and some were delisted. Return on Asset (ROA) is considered as proxy of financial performance. Secondary data were used and extracted from the firm's annual reports using environmental reporting Index (ISO 14031) content analysis, provided at appendix A1. In relation to financial performance the data was also collected from the firm's annual reports. The study analyses were conducted using STATA 13 statistical software. The regression result revealed that environmental information has significant positive effect on return on asset (ROA); employee health and safety have negative significant effect on ROA; product safety has negative significant effect on ROA. Based on these findings, this study therefore, concludes that environmental reporting influence financial performance of listed industrial and consumer goods firms in Nigeria. This study therefore, recommends among others that, listed Nigerian industrial and consumer goods firms should emphasize more on reporting their environmental issues as it is capable of improving their financial performance.

Keywords: Environmental Reporting, Financial Performance, Industrial and Consumer Goods Firms, Nigerian Exchange Group.

1.0 Introduction

Financial performance is the company's financial condition over a certain period that includes the collection and use of funds measured by several indicators of capital adequacy ratio, liquidity, leverage, solvency, and profitability. Financial performance is the company's ability to manage and control its resources, (Horne & John, 2016).

Financial performance is an extent to which a company financial health over a period of time is measured. In other words, it is a financial action used in order to generate higher sales, profitability and worth of a business entity for its shareholders through managing its current and non-current assets, financing, equity, revenues and expenses. Its main purpose is to provide information to shareholders and stakeholders to encourage them in making decisions. It can be used to evaluate similar companies from the same industry or to compare industries in aggregation (Farah et al., 2016).

An environmental report is the process of informing specific stakeholders and the general public on social and environmental issues of an organization's economic activities (Lyndon & Sunday, 2018).

Environmental reporting issues have attracted the attention of companies and the public that are concerned about raising environmental standards, companies are forced to disclose environmental information in their annual reports. Understanding environmental management means that actions taken now affect the opportunities they may have in the future. Consequently, if resources are used today, it will not be available in the future, especially if the sources are limited. Companies, especially those active in industrial production, such as industrial products companies, disclose environmental issues in order to improve their image in the eyes of interesting groups and people alike thus gain legitimacy for their existence. Disclosure of environmental aspects is one means by which companies can influence and improve society's perception of their business. In addition, environmental disclosure is considered an obligation and a right of stakeholders, as this type of information is used by different stakeholder groups to aid in decision making (Abdullahi, 2017).

The industrial and consumer goods are companies that their activities have an impact to the society as such there is a need to take care of their environmental issues and how they are addressed in their annual report and account, Secondly the two sectors (that is industrial and consumer goods firms) are sector that engage in industrial process that led to environmental risks to the society such as greenhouse gas emissions, global warming, environmental pollution, atmospheric pressure, and contribute greatly in the economic development. This study finds a need to contribute in the exiting literature by examine the effect of environmental reporting and financial performance of listed industrial and consumer goods.

Additionally, from the background above, we can see that environmental reporting affects financial performance, because when firms are unable to provide the community with an adequate assessment of the actions they are taking to address environmental destruction, it is likely for the society to lower their demand for the firms' services, which in turn can lead to low firm productivity and financial performance (Lindgreen et al., 2012).According to Bowman (1995), "Stakeholders and other users of environmental information view environmental reports as symbols of glory. A company's reputation is strengthened through activities related to environmental protection. With a good reputation, a company's financial performance improves over the long term."

The significance of environmental reporting is gaining momentum due to growing environmental problems and rising public concern for firms to be environmentally and socially responsible. These environmental problems are usually cause by firms' industrial activities such as: Refining, construction, mining, and many other activities that generate environmental waste. Extreme levels of pollution lead to environmental pollution and therefore, environmental problems across the globe have reached unprecedented levels. Therefore, environmental risks to the community such as: Industrial emissions, global warming, atmospheric pressure, and waste water and land cannot be ignored. Business success and failure are determined not only by the products or services they offer, but also by the complexity of their environment. Organizations should report on environmental problems and how to deal with them effectively in their annual reports. However, most companies do not correctly report environmental problems. Even the reporting companies are not clear whether disclosure has a direct effect on the financial performance of industrial and consumer goods firms (Hans et al., 2021).

Environmental reporting and financial performance studies have been conducted locally and internationally. Most of the research focused on either industrial or consumer goods firms' sector of the economy and the two sectors were examined together with all manufacturing firms, this research consider only the two sectors together because of the impact of their activities to the society. For example, Agbiogwu et al. (2016) studied the impact of environmental and social costs on the productivity of Nigerian consumer goods firms for the period of one year (2014). Oyedokun et al. (2019), investigate effect of environmental reporting on firm value of listed industrial goods firm in Nigeria from 2007- 2016.

Furthermore, Godwin et al. (2019) investigate effect of environmental disclosure on financial performance of listed industrial goods firm in Nigeria from 2007- 2016. So also, Malarvizhi and Matta (2016) investigated the environmental disclosure on firm financial performance nexus in India of chemical, energy and metal companies listed on the Bombay Stock Exchange. Tze et al. (2014) conduct environmental impact assessments on the financial performance of listed Malaysian manufacturing companies. Aggarwal (2013) also conducted a study that examines the relationship between environmental reporting and financial performance of environmental protection firms. Namani et al. (2017) examined the relationship between environmental disclosure and financial performance in the brewery industry in Nigeria.

The main objective of this study is to examine the effect of environmental reporting on the financial performance of listed industrial and consumer goods firms in Nigerian. The specific objectives were to:

i. Identify the effect of environmental information on financial performance of listed industrial and consumer goods firms in Nigeria.
ii. Investigate the effect of employee's health and safety information on financial performance of listed industrial and consumer goods firms in Nigeria.
iii. Assess the effect of product safety information on financial performance of listed industrial and consumer goods firms in Nigeria.

To achieve the objectives of the study, the researchers formulate and tested the following research hypotheses:

Ho_1: Environmental information has no significant effect on financial performance of listed industrial and consumer goods firms in Nigeria.

Ho_2: Employee's health and safety information have no significant effect on financial performance of listed industrial and consumer goods firms in Nigeria.

Ho_3: Product safety information has no significant effect on financial performance of listed industrial and consumer goods firms in Nigeria.

2.0 Literature Review

Environmental reporting is the practice of firms reporting its commitment towards resolving environmental problems cause by their production and manufacturing activities. It also contains information on a company's strategies for its activities and environmental performance (Wilmshurst & Frost 2000). The environmental report includes information on all aspects of the environment, which includes environmental information, employees' health and safety, community development, energy and product safety are used as representatives for environmental reporting. Environmental reporting is a broad term that has many meanings and practices. It is a comprehensive area of reporting that provides information to stakeholders of organizations both internal and external. The function of environmental reporting is to measure environmental performance (Ván, 2012). "Is a process by which companies disclose information about environmental performance in order to demonstrate that they are responsible for their activities," (Uwuigbe, 2011).

Environmental Information is extensive topic, such as: Air, water, soil and the environment itself, in which animals and plants live, emissions, radiation, noise and other factors that affect the environment and environmental laws. The atmosphere contains information about the state of environmental factors. It also contains environmental information on decisions, policies and measures that affect the environment (Legal Instrument 2004 No. 3391).

Employees in the Nigerian industrial and consumer goods are highly susceptible to hazardous substances in their work environment and which adversely affect the health of workers. The need to promote healthier and safer working conditions is increasingly recognized as a broad notion that affects the standard of living of workers, as well as its significant impact on the social environment. Employees and safety include the physical, mental and emotional well-being of employees while carrying out their duties and thereby having a positive impact on the achievement of organizational goals (Amponsah & Dartey, 2011). Employee health and Safety disclosure are reports/programs created to protect employees from organizational activities; product and service risks. Increased industrialization and economic development have led to increased industrial accidents and exposure to hazardous chemicals and toxic substances, which affect the health of workers and the environment.

The term "product safety" is used to describe a policy that protects people from harm to the thousands of buyers that consume the product. Federal law allows the Commission to set safety standards, enforce compliance and prohibit unsafe products under certain conditions. Product safety means that any practical or direct use, including durability, may be required or indefinitely serviced, installed and repaired, low impact products are produced (Ducan, 2018).

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period (kenton et al., 2021). Furthermore, financial performance is the achievement of the company's financial performance for a certain period covering the collection and allocation of finance measured by capital adequacy, liquidity, solvency, efficiency, leverage and profitability. Financial performance, the company's ability to manage and control its own resources. Cash flow, balance sheet, profit-loss, capital change can be the basis of information for corporate managers to make decisions. It is important to understand fundamental analysis and technical analysis, it is necessary to learn finance to understand the company's financial behavior through economics, financial management and accounting (Didin et al., 2018).

Moreover, financial performance indicates the achievement of financial goals. It can be seen as process by which companies measure the results of their economic policies, (Ganga et al., 2015). However, as a result of this study, current ratio, return on asset and Tobin’s q are used as proxies of financial performance. Furthermore, financial performance in the financial world is measured to provide shareholders a management account and a management team. These important aspects include: Measuring profitability, market value and corporate growth and liquidity prospects. Accounting-based measures examine the nature of the relationship between specific social performance indicators (characteristics, exposure to social networks, environmental behaviors, etc.) and financially audited historical information, such as a company’s financial performance derived from accounting information of respective companies (Magara et al., 2015).

Return on Asset (ROA) indicates the level of profit of a company when comparing the income from operations to the total assets used to generate the income. One way to calculate a company’s investment return is by calculating the net income ratio, when assets are based on debt and equity. Since investors usually deduce the effectiveness from how a company converts the money it has to invest and thereby yielding profit, ROA is relied upon as a financial measurement. Zubair (2016), said that “Financial measurement may indicate the strength, weakness, opportunity and threat of any company for which ROA is one out of other financial measurement, others being Earnings Per Share (EPS), Price Earnings Ratio (PER), Residual Income (RI).”The return on total assets is explained above others, because it has an advantage in measuring internal management ratio since it takes profit and measures it against all the assets of an entity, thereby showing the cash inflows, operational performance and effectiveness of management of resources. Other benefits of ROA are that it reveals the percentage of profit earned compared to its overall resources utilized and the makes available information about the assets that is used to create income.

Return on assets is the portion of income that a company can receive from an asset. In short, asset recovery (ROA) measures the ability of company employees to utilize financial resources or balance sheet assets. The definition of ROA is 100 times more efficient than the competent body of the company in determining a more efficient and profitable balance sheet. The average return on investment is calculated from total assets, as a company's total assets may change over time due to changes in the flow of vehicles, land or goods, changes in purchases or seasonal sales. Therefore, the calculation of the average total assets for a given period is more accurate than the total assets for that period (Claire, 2019).

Legitimacy theory is a systematic theory that suggests that the work of organizations can have an impact on the environment (employees, host communities, suppliers, creditors, regulators and government) in which they operate (Deegan, 2002). Legitimacy theory principles suggest that when managers consider the provision of certain sources or information for organizational existence, they adopt policies to ensure the continued availability of information to maintain validity (Degan, 2002).

Degan (2009), emphasized that the organization's ongoing commitment to social expectations is more effective. The social contract between the organization and the community must be determined by the organization implementing the social program. Violation of this agreement jeopardizes the survival and functioning of these organizations. Pfeffer and Salancik said that legitimacy granted when stakeholders (internal and external beneficiaries who are affected by organizational outcomes) approve the goals and activities of the organization. Therefore, an organization must adopt an act or activity that has acceptable social norms and values in order to be considered legal. The organizations use social resources and society evaluates them for the benefit and legitimacy of their work.

Quality of life is defined as a multidimensional assessment of a person's current living conditions in terms of the culture and values he or she carries. Quality of life transcends all aspects of mental well-being including physical and mental reward, social rewards. In some cases, cognitive symptoms can be individualized or, in the case of individuals who are mentally ill, serve as an indirect assessment of quality of life (Owolabi, 2007). All the theories mention above are important but the study goes with legitimacy theory because it seeks to show that business operations are conducted in a way that does not endanger society.

Environmental Information and Financial Performance

Muhammad and Shuaibu (2022), examine environmental disclosure and financial performance of listed non-financial companies in Nigeria from 2013 – 2020. A sample of seventy- six (76) companies listed as non-financial was drawn from the population of one hundred and thirteen (113) companies. Audited annual reports and accounts were used for data extraction. The analysis was done using descriptive statistics and multiple regressions. Explanatory research designed was adopted in the study to find out the influence of ED on financial performance. Variables used include the ED measured using ordinal coding scheme based on GRI guidelines (G4) focusing on environmental prevention expenditure disclosure(EN40), Waste disposal, emission treatment and remediation cost disclosure (EN41), Prevention and environmental management cost disclosure (EN 41) used as proxies for independent variable and financial performances' accounting and market based measures proxy by earnings per share and Tobin's Q was used as the dependent variable. Robustness tests such as multicolinearity test, heteroscedasticity test, normality test and Hausman specification test were conducted to validate the results. The study revealed that there is positive significant relationship between EPED, WDCD, PMCD and EPS while negative with TQ of listed Nigerian non-financial companies. Moreover, the study above used Global reporting initiative GRI guidelines (G4) while this study used International Standard Organization (ISO 14031). Secondly the study above measured environmental reporting using only three items which all of them are under environmental information while this study used all the item under environmental information, employee health and safety and product safety.

Utile et al. (2017), conduct an analysis of environmental reporting on the financial performance of Nigerian manufacturing companies from 2011 to 2015. Study revealed that reports of soil protection and air pollution affected the company's financial performance, while waste management reports had serious negative implications for companies' operations. Moreover the period covered by the study was not enough to disclose whether environmental reporting affect financial performance, and the study measured environmental reporting using only three items out of 60 disclosure items check list, whereby this study will take years more than that of (Utile et al., 2017), in which ten years were used and also this study take all 60 disclosure items in the check list to identify the effect of environmental reporting and financial performance of the affected firms (that is industrial and consumer goods).

Employees Health and Safety Information and Financial Performance

Peter and Geraldine (2018), examined the effect of environmental and social differences on the financial performance of oil and gas companies listed in Nigeria. Data collected for five (5) years were analyzed using a simple regression method. The results of the statistical analysis show that waste management has a significant and positive effect on the company's financial performance, and reporting on community development and employee health and safety does not significantly affect financial performance. The study used five years period which is too scanty to disclose whether environmental issues affect financial performance.

Furthermore, (Oba, 2012) examine the relationship between employee health and safety (EHS), community development (CD), and charity contributions (CC) on market value of quoted industrial goods and conglomerates for the period of five years from 2005 to 2009, conducted under the heading Tobin's Q measure. This study found that there is almost no relationship between, EHS, CD and CC and market values of the surveyed market groups. The period was too scanty there is a need for more years at least ten (10) and above years in order to have accurate result.

Product Safety Information and Financial Performance

Emeka et al., (2021), investigate the effect of social and environmental disclosure on financial performance of listed consumer goods firms in Nigeria. The time frame of the study was ten (10) years from (2010-2019). As at December 31, 2019 twenty (20) companies were listed as consumer goods firms in Nigeria out of which 16 were selected as sample size using convenient sample techniques. The study considers environmental disclosure index as independent variable measured by product safety, and firm size as control variable. The financial performance as dependent variable proxies by ROA and EPS, the study used GRI to measured environmental issues using 27 disclosure items including product safety, this also motivate the researcher to also consider this area to identify the effect of environmental reporting and financial performance of listed industrial and consumer goods using sixty (60) disclosure item of ISO (14031).

Furthermore, Godwin et al. (2019), investigate effect of environmental disclosure on financial performance of listed industrial goods firm in Nigeria from 2007- 2016. The study used ex-post facto research design and data were generated from sample company annual financial statement. Multiple regression analysis was used to analyze the data. Environmental disclosure considered as independent variable which is measured using environmental performance indicators (that is, product safety, material, energy, water, biodiversity, emission). While financial performance measured using Tobin's q. The study used global reporting initiatives of twenty (20) disclosure item, which means some of the environmental issues were not captured on (GRI), this brings the need to look into this area by investigating the sector using ISO (14031) of sixty (60) disclosure item to investigate the effect of environmental reporting on financial performance of listed industrial and consumer goods firms. Furthermore, the study also used multiple regression analyses, while this study will employ multivariate regression analyses to examine the effect among the variable.

All these studies from Nigeria and abroad have taken into account industrial and consumer goods firms together with all manufacturing firms in their research, this brings the need to conduct this study and aimed at contributing to the existing literature by conducting this study on the only two sectors together to analyze the effect of environmental reporting on financial performance of listed industrial and consumer goods firms in Nigeria.

3.0 Methodology

The study adopts cross-sectional panel research design to determine the effect of environmental reporting on the financial performance of listed industrial and consumer goods firms using international standard organization (ISO 14031) guidelines based on content analysis provided in appendix A1, Ordinary least square (OLS) regression model were used and STATA 13 software were used to analyze the data. The population of the study comprises of 42 industrial and consumer goods firms that are listed on the Nigerian Exchange Group (NGX Fact book, 2021). From the population above, 11 firms were selected as sample size of the study, which comprises 5 industrial goods and 6 consumer goods firms. The remaining 31 firms were filtered out, because they do not report their environmental disclosure throughout the period under the consideration of this study and some ware delisted. The independent variables for the study are environmental information, employee health and safety, and product safety as proxies of environmental reporting and for the dependent variables financial performance proxied by return on asset. Data for the period of ten years from 2012 to 2021, where collected from audited annual report and account of the sampled firms. Variable, measurement and definition are in Appendix A2. The study adapts the following model used by Yahaya, 2018, to find out whether environmental reporting affects financial performance of listed industrial and consumer goods firm in Nigeria. The model is estimated as follows to achieve the objectives of the study:

$ROA_{it} = \alpha + \beta_1 EI_{it} + \beta_2 EHS_{it} + \beta_3 PS_{it} + \varepsilon_{it}$…………………………………………………………………………….. **(I)**

Where:

ROA: Return on Asset which is Net profit after Tax to Total Asset

EI_{it}: Environmental Information (Independent variable)

EHS_{it}: Employee Health and Safety (Independent variable)

PS_{it}: Product Safety (Independent variable)

ε_{it}= Error term
α = Constant or Intercept
$\beta_{1\text{-}3}$ = Co-efficient of independent variables.

4.0 Results and Discussion

This section presents the results of the analysis of the collected data from the annual report and accounts of the sampled firms in Nigeria. The descriptive statistics and regression analysis are presented below.

Table 1: Result of Descriptive Statistics

Variable	Obs	Mean	Std. Dev.		Min	Max
ROA	110	.1067036	.3766194	`	-1.7992	1.3283
EI	110	.1015073	.3304534		0	1.4082
EHS	110	.1691282	.1144061		.0333	.5396
EGY	110	.0180264	.0239022		0	.1333
PS	110	.0579627	.0501253		0	.21

Source: STATA 13 OUTPUT.

Table 1 shows the results of descriptive statistics, the number of observations for the sampled 11 listed industrial and consumer goods firms stand at 110. The Returns on Assets (ROA) has a mean of 0.107 and standard deviation (SD) of 0.377. These suggest that on the average the industrial and consumer goods firm in Nigeria have a return on assets of 0.107. This means that for every invested in firm assets, there is about 11kobo in returns. TheSDof0.377 deviate from the mean, this is as a result of the fact that some firms recorded a negative ROA in some years and as a result, the SD is not very close to the mean. The minimum mean of -1.799 represent a negative return on assets and indeed the lowest returns. This is due to the high losses recorded by some firms in some years signifying a poor performance.

However, the highest return to the firm's assets is 1.32. Similarly, environmental information (EI) has a mean of 0.102 and a standard deviation of 0.330, a minimum mean of 0 and maximum mean of 1.408 which indicates that the environmental information of the firms is within the range of normal distribution. Employee health and safety (EHS) has a mean 0.169 and SD of 0.114, this indicate that on average firms under consideration report 16.9% information about EHS in line with ISO (14031). The SD of 0.114 indicates that almost all the firms have similar EHS reporting behaviors. The minimum mean of 0.033 and maximum mean of 0.539 emphasizes that firms report not more than 53.9% of their EHS information.

Lastly, product safety (PS) has mean of 0.058 and SD of 0.050, this shows that Product safety average mean of all the firms over the years of consideration is 0.058, and the standard deviation of 0.050 which closer to the mean indicates that the various observation under PS is very close to its mean. The minimum mean is 0 which indicates that some of the firms do not report for their PS information across some years under consideration of the study, with maximum mean of 0.21 meaning that firms report not more than 21% of their product safety information.

Table 2: ROA Regression Result

ROA	Coef.	Std.Err	t	P>t	95%Conf.	Interval
EI	1.004	.307	3.27	0.001	.396	1.613
EHS	-1.343	.479	-2.80	0.006	-2.292	-.393
PS	-2.099	.921	-2.28	0.025	-3.924	-.273
_cons	.334	.079	4.21	0.000	.177	.491
F (5, 104)	9.44					
Prob> F	0.0000					
R^2	0.3121					
Adj R^2	0.2791					

Source: STATA 13 OUTPUT.

Table 2 shows the regression result of the model (ROA) of the study on effect of environmental reporting on return on assets of listed industrial and consumer goods firms in Nigeria. ROA is used to represent the accounting measures of financial performance. From the table above environmental information (EI) has a positive coefficient of 1.004 and p-value of 0.001 which implies that (EI) has a significance positive effect on return on assets of listed industrial and consumer goods firms in Nigeria. However, employee health and safety (EHS) and product safety (PS) has a negative coefficient of -1.343 and -2.099 with p-value of 0.006 and 0.025 respectively.This implies that p-value of 0.006 and 0.025 are significance at 5%, and as such EHS and PS has a significance negative effect on return on asset of listed industrial and consumer goods firms in Nigeria.

The Table 2 shows the result of regression among the variables. The R-squared and Adjusted R-squared with values of 0.312 and 0.279 suggest that the explanatory variables (EI, EHS, and PS) were able to explicate the dependent variable (ROA) by 27.9%. This means that EI, EHS, and PS play an important role in explaining variation in ROA. The regression result reveals the fitness of the model with f-statistics value of 9.44 which is above the 2.60 f-critical value and f-significance value of 0.0000 which is significant at 5%.

The findings from this model revealed that environmental information has a significance positive effect on return on assets of the selected firms. This implies that as the listed industrial and consumer goods firm increase their environmental information their financial performance will also increase. The model also reveals that employee health and safety and product safety has a negative significance effect on return on assets of listed industrial and consumer good firms in Nigeria. This implies that as listed industrial and consumer goods firms increase their EHS and PS then their financial performance will decrease (which means the higher the EHS and PS the lower the ROA).

Hypothesis 1 state that environmental information has no significant effect on financial performance (FP) of listed industrial and consumer goods firms in Nigeria. From table 2, the null hypothesis is rejected and accepts the alternate because the regression result shows significant effect of EI on ROA.

Hypothesis 2 is on the effect of employee health and safety on FP of listed industrial and consumer goods firms in Nigeria. The null hypothesis states that employee health and safety have no significant effect on FP of listed industrial and consumer goods firms in Nigeria. However, the null hypotheses 2 is rejected and accept the alternative because the regression result shows significant effect of EHS on ROA of listed industrial and consumer goods firm in Nigeria.

Hypothesis 3 state that product safety (PS) has no significant effect on return on asset (ROA) of listed industrial and consumer goods firms. In this case, the null hypothesis 3 is rejected and accepts the alternate because the regression result shows significant effect of PS on ROA of the affected firms.

5.0 Conclusion and Recommendations

The study was carried out to examine the effect of environmental reporting on Financial Performance of listed industrial and consumer goods firms in Nigeria. Based on the regression results and the findings, the study concludes that environmental reporting has a significant effect on financial performance of listed industrial and consumer goods firms in Nigeria. Based on the conclusion of this study, the following measures are recommended:

i. The study recommend that listed industrial and consumer goods firms in Nigeria should emphasize reporting more on their environmental information as it is capable of improving their financial performance. This can be achieved through proper and accurate reporting of their environmental information, because it affects Financial Performance significantly.
ii. The study also recommend that listed industrial and consumer goods firms in Nigeria should give priority to employee health and safety programs because a safe workplace is sound business that prevent injuries, illness and encourage adapting safety behavior, which in return affect financial performance significantly based on the findings and conclusion of this study.
iii. It is also recommended that industrial and consumer goods firm that disclosed their product safety information are financially stronger than those that are not disclosing their product safety information.

References

Amponsah, T. K., & Dartey, B. K. (2011). Occupational health and safety: key issues and concerns in ghana. *International journal of business and social sciences, 14*, 120-126.

Agbiogwu, F., Ihendinihu, I., & Okafor, C. (2016). Impact of environmental and social costs on performance of Nigerian manufacturing companies. *Journal of Finance, 4(2)*, 61 – 73.

Aggarwal, P. (2013a) Relationship between environmental responsibility and financial performance of firm: A literature review, *IOSR Journal of Business and Management, 13(1),* 13-22.

Amponsah, T.K., & Dartey, B.K. (2011). Occupational health and safety: key issues and concerns in ghana. *International journal of business and social sciences, 14* , 120-126.

Claire, B. W. (2019). Corporate finance and accounting, financial ratio: https://www.investopedia.com

Deegan, C. (2009). *Financial Accounting Theary (3rd ed)* . Australia: McGraw-hill Book Company.

Deegan, C. (2002). Letimizing effect of social and environmental Disclosure: A Theoritical fondation, *Accounton,Auditing and Accountability Journal, 15*(3), 282-311.

Deegan, C., Rankin, M., & Tobin, J. (2002). An examination of the corporate social and environmental disclosures of the BHP from 1983-1997: A test of legitimacy theory. *Accounting, Auditing and Accountability journals,15(3),* 12-421.

Dessy, A., & Suryaningsih, R. (2015). The effect of environmental performance and corporate social responsibility disclosure towards financial performance of Manufacturing, Infrastructure and service companies listed at the Indonesia Stock Exchange. *Procedia - Social and Behavioral Sciences, 211*, 348 – 355.

Dessy, A., & Rosita, S. (2015). The effect of environmental performance and corporate social responsibility disclosures towards financial performance. *2nd Global conference on Business and Social Sciences GCBSS*, 17-18 September 2015, Bali Indonesia.

Didin, F., Jusni., & Mochamad, M. (2018). How measuring financial performance: *International Journal of civil engeneering and technology,* 9(6), 553-557.

Ducan, G. (2018) New General Product Safety Regulations. The European communities Regulations, *Statutory Instrument 199* 0f 2004.

Emeka, E., Olaoye, S. A., & Ogundajo, G. O. (2021). Effect of social and environmental disclosure on performance of listed consumer goods company in Nigeria. *International journal of applied economics, finance and account, 11(1), 35-47.* https://doi.org/10.33094/8.2017.2021.111.35.47

Farah, N., Farrukh., & Faizan. (2016). Financial performance of firms: Evidence from Pakistan cement companies. *Journal of Teaching and Education.*

Ganga, M., Kalaiselvan, P., & Surya, R. (2015). Evaluation of financial performance. *International Journal of scientific and Research Publications, 5*(4), 2250-3153.

Goyit, M. (2015). Service quality and financial performance of selected banks in Nigeria, *International Journal of managerial studies and research, 4*(1) , 29-37.

Hans, B. C., Luzi, H., & Christian, L. (2021). Mandatory CSR and Sustainability reporting: *Economic analysis and literature review,*26,1176-1248.https://doi.org/10.1007/s 11142-021-09609-5

Horne, J. C. V & John M. W. (2016). Fundamental of Financial Management, 12th ed. Prentice-Hall, Inc.

Howes, R. (2002). Environmental Cost Accounting: An Introduction and Practical Guide, *London, The Chartered Institute of Management Accountants.*

James, M. (2020). Corporate finance and accounting, financial ratio: https://www.investopedia.com

Kenton, W. (2021). https://www.investopedia.com/terms/f/financialperformance.asp. Accessed February 28, 2022.

Lingreen, A., Kotler, p., Vanhamme, j. & Moan, F. (2012). A stakeholder Approach to corporate social responsibility. [0nline] Available at <https://books.google.com.my/book

Lyndon, M. E., & Sunday, O. (2018). Environmental responsibility reporting and financial performance of quoted oil and gas companies in Nigeria. *European journal of business and innovation research,6*(6), 23 - 34.

Magara, R., Aminga, N. N., & Momanyi, E. (2015). Effect of environmental accounting on company financial performance in Kenya. *British Journal of Economics, Management & Trade, 10*(1), 1-11. https://doi.org/10.9734/BJEMT/2015/19909

Malarvizhi, P., & Matta, R. (2016). Link between corporate environmental disclosure and firm performance- perception or reality,. *Rewiew of Intergrated Business and Economics Research, 5*(3), 1-24.

Muhammad, J. k., & Shuaibu, K. (2020). Environmental Disclosure and Financial Performance of Listed Non-Financial Companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 10*(2), 31-51.

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.

Oba, V.C. (2012). Impact of Corporate Social Responsibility on Market Value of Quoted Conglomerates in Nigeria. Unpublished M.Sc Thesis, Ahmadu Bello University, Zaria.

Ong, T.T., Tho, H.S., Goh, H. H., Thai, S. B., & Teh, B. H. (2016). The relationship Between Environmental disclosure and financial performance of public listed companies in malaysia. *International Business Management, 10*(4), 461-467.

Owolabi, A.A. (2007). Incorporating Environmental cost into Nigeria Oil and Gas Accounting, A thesis submitted to the Deprtment of Management and Accounting, Faculty of Administration, Obafemi Awolowo University: Ile-Ife. Nigeria.

Oyedokun, G. E., Egberioyinemi, E., & Tonademukaila, A. (2019). Environmental disclosure and firm value of listed industrial goods firms in Nigeria. *Journal of economics and finance, 10*(1), 7-27.

Peter, A.O., & Geraldine, M.B. (2018). Analysis of environmental and social disclosure and financial performance of selected oil gas companies in nigeria. *journal of accounting and financial management, 4*(2), *4-5*,

Pfeffer, J., & Salancik, G.R. (1978). The external Control of Organisation. Harper and Row Statutory Instrument No. 3391, *Environmental information Regulations 2004*

T, I. (2000). *Enviromental Accounting and Social Responsibility and its Impact on Annual Reporting.* Business 2000 Seventh editon.

Teoh, H.Y., Pin, F.W., Joo, T.T., & Ling, Y.Y. (1996). Environmental disclosure - financial performance link: futher evidence from industrializing economy perspective. *Nanyang Business School* (1-28). Nanyang Technological University.

Tze, S.O., Boon, H.T., Yee, W.A. (2014). The impact of environmental inprovement on the financial performance of leading companies listed in malaysia. *International journal of Trade, economic and finance, 5*(5), 386-391.

Utile, B. J., Tarbo, D. I., & Ikya, E. A. (2017). Corporate environmental reporting and the financial performance of listed manufacturing firms in Nigeria. *International Journal of Advanced Academic Research Social and Management Sciences, 3*(8), 15 – 25.

Uwuigbe, U. (2011). Corporate environmental reporting practices: A comparative study of Nigerian and South African firms: *Doctoral dissertation, Covenant University*.

Uwuigbe, U. & Jimoh, J. (2012). Corporate Environmental Disclosures in the Nigerian ManufacturingIndustry: A Study of Selected Firms. A*n International Multidisciplinary Journal*, Ethiopia, *6*(3), 71-83.

Ván, H. (2012). Environmental Accounting A New Challenge for the Accounting System. *Public Finance Quarterly, 57*(4), 437-452.

Wilmshurt, J.D., & Frost, G.R. (2000). Corporate Environmental reporting: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal, 13*(1), 10-26.

Yahaya, O. (2018). Environmental Reporting practice and financial performance of listed environmentally sensitive firms in Nigera. *journal of environmental and social sciences, 24*(2), 403-412.

Zubair, A. K. I. (2016). Evaluation of the impact of audit committees on the financial of listed Deposit Money Bank in Nigeria. A dissertation.

Appendix A 1
ISO ENVIRONMENTAL REPORTING DISCLOSURE INDEX

DISCLOSURE INDEX FOR YEARS 2012 TO 2021	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
A. ENVIRONMENTAL INFORMATION										
1. Past and current expenditure for pollution control equipment and facilities.										
2. Past and current operating costs of pollution control equipment and facilities.										
3. Future estimates of expenditures for pollution control equipment and facilities										
4. Future estimates of operating costs for pollution control equipment and facilities.										
5. Financing for pollution control equipment or facilities										
6. Air emission information.										
7. Water discharge information.										
8. Solid waste disposal information.										
9. Environmental policies or company concern for the environment.										
10. Conservation of natural resources.										
11. Recycling plant of waste products										
12. Installation of effluent treatment plant										
13. Anti-litter and conservation campaign										

14. Land reclamation and forestation programmes										
15. Pollution control of industrial process										
16. Research on new methods of production to reduce environmental pollution										
17. Raw materials conservation										
18. Support for public or private action designed to protect the environment.										
B. EMPLOYEES HEALTH AND SAFETY INFORMATION										
19. Human Resource Development (e.g. Training Programme/Scheme)										
20. Educational Facilities										
21. Health and Safety Arrangements (i.e. safety of the employees).										
22. Pensions										
23. Holidays and Vacations.										
24. Information about support for day-care, maternity and paternity leave										
25.Recreation Clubs and public libraries										
26. Reduction or elimination of pollutants, irritants, or hazards in the work environment										
27. Discussion of accidental statistics										
28. Training of the employees through in-house programmes										

29. Establishment of training centres										
30. Discussion on staff accommodation/staff home ownership schemes										
31. Policies for the company's remuneration package/scheme										
32. Number of employees in the company										
33. Providing per employee statistics (e.g. assets per employee, statistics on employee turnover										
34. Providing information on the qualification of employees recruited										
35. Providing information on the company/management relationships with the employees										
36. Sponsoring educational conferences, seminars or art exhibitions										
37. Providing information on the stability of the workers' job and company's future										
38. Discussion on the company's relationship with trade unions and/or works										
39. Discussion on any strikes, industrial actions/activities and the resultant losses										
C. COMMUNITY AND DEVELOPMENT										
40. Donations to the charity, arts, sports, etc										

41. Relations with local population										
42. Social welfare										
43. Seminars and conferences										
44. Canteen, Transportation, and crèches for the employees’ children.										
45. Rehabilitation Programmes										
46. Establishment of Educational Institution (s).										
47. Medical Establishments										
48. Parks and Gardens										
49. Public Hall and/or Auditorium										
D. ENERGY										
50. Conservation of energy in the conduct of business operations										
51. Utilisation of waste materials for energy conservation										
52. Discussion of the company’s efforts to reduce energy consumption										
E. PRODUCTS										
53. Information on developments related to the company’s products including its packaging										
54. The amount/percentage figures of research and development expenditures and/or its benefits										
55. Information on research projects set up by the company to improve its product in any way										

56. Information whether the product(s) meet(s) applicable safety standards										
57. Providing information for conducting safety research on the company's products										
58. Providing information on the safety of the company's product										
59. Information on the quality of the company's product as reflected in prizes/awards received										
60.Verifiable information that the quality of the firms' product has increased (e.g. ISO 14031).										
TOTAL DISCLOSURE FOR THE YEAR										

Appendix A2

Table 1: Variables Definition and Measurement

S/N	**Dependent Variables**	**Definition**	**Measurement**	**References**
1.	Return on Asset	Return on asset is financial ratio that measures how effective business management is in obtaining profits from economic resources or asset on the balance sheet.	Net profit after tax/ Total asset	Claire, 2019
2.	Environmental Information Management	it is the correct name for the collection, transport, disposal and waste generated by human actions. It also includes information on environmental decision making, processes and activities that affect the environment.	Can be measured Using (ISO 14031) 60 disclosure items by assigning "1" if an item disclose and "0" if not, for each year of each company, with the maximum point of "60" and minimum of "0"	Statutory Instrument 2004 No.3391

3.	Employee Health and safety	The dual duty of employers is to the health, safety and well-being of employees and other people the business may be affected.	Can be measured Using (ISO 14031) 60 disclosure items by assigning "1" if an item disclose and "0" if not, for each year of each company, with the maximum point of "60" and minimum of "0"	Amponsah Tawaiah& Darteybaah 2011
4.	Product Safety	Product safety means the use of any product under normal condi tions,including high requirements, applicable service, installation and maintenance. It contains no or only appropriate risk for the product.	Can be measured Using (ISO 14031) 60 disclosure items by assigning "1" if an item disclose and "0" if not, for each year of each company, with the maximum point of "60" and minimum of "0"	Ducan, 2018

Source: Researchers Compilation 2023