



Impact of Corporate Sustainability on Firms' Financial Performance: Evidence from Nigerian Public Listed Companies

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Abstract

This study investigates the relationship between corporate sustainability (ESG) practices and financial performance, focusing on companies listed on the Nigerian Exchange Group (NGX) from 2013 to 2023. The research evaluates how environmental, social, and governance (ESG) components influence Return on Equity (ROE), while accounting for control variables such as company size, financial leverage, and GDP. Using secondary data from 396 firm year observations, the study employs regression and correlation analysis to test the hypotheses.

The results reveal that ESG practices positively impact financial performance, with governance being the strongest driver, followed by environmental factors. However, social practices show a negligible and statistically insignificant relationship with ROE. Additionally, while financial leverage negatively affects ROE, company size and GDP have minimal influence. The findings align with stakeholder and agency theories, emphasizing that strong ESG practices enhance shareholder value and long-term business performance.

Keywords: Financial Performance, Sustainable Development , Environmental, Social, And Governance (ESG) , Agency Theory, Signalling Theory

INTRODUCTION

The concept of sustainable development gathered considerable focus in international policy making after the publication of the Brundtland Report (Burton, 1987). The report outlined the findings of the World Commission on Environment and Development and played a crucial role in laying the groundwork for the UN Earth Summit in 1992. Sustainable development is defined as



advancement that meets present-day requirements while guaranteeing that future generations can fulfil their own. Although the notion of sustainability has been interpreted in a variety of ways in recent years, this paper provides what is frequently regarded as the most frequently cited definition of sustainable development (Ameer & Othman, 2011).

According to Sphera (2020), corporate sustainability means a business plan that strives for long-term success while considering the effects of operations on the environment and people. According to the Commission, corporate social responsibility (CSR) should be driven by the corporation since it is the obligation of businesses for their social impact. The notion of corporate sustainability is based on three key pillars: environmental, social, and governance (ESG) (Friede et al., 2015).

Nigeria, Africa's largest economy, is categorised as a developing nation with a significant financial shortfall for sustainable development (Makinde, Abolade Olayinka, 2024). Companies are now required to maintain a policy document that foster connections with stakeholders both internally and externally under the Nigerian Corporate Governance Code (NCCG), which is supervised by the Financial Reporting Council of Nigeria. The purpose of this regulation is to increase accountability and openness about how businesses affect society and the environment. Organisations have been further motivated to integrate ESG issues into their governance structures by these regulatory reforms (Chambers and Partners, 2024).

This study aims to investigate how corporate sustainability practices affect the financial performance of Nigerian publicly listed firms. This goal stems from the desire to better understand how corporate responsibility and economic outcomes relate to Nigerian publicly traded companies. Environmental concerns can be seen as an economic resource and impact the interests of many market actors (Liu et al., 2020).

LITERATURE REVIEW

Amir Barnea and Amir Rubin investigate the internal tension that arises in businesses that spend money on corporate social responsibility (CSR). The authors contend that corporate insiders, such as managers or major shareholders, can encourage greater CSR spending for their own benefits or to boost their reputation (the so-called "warm glow" effect), possibly above the thresholds that optimise firm value. Using data from US corporations, they demonstrate that insider ownership and leverage have a negative correlation with CSR, suggesting that insiders are less likely to engage in large CSR expenditures when they incur greater costs. According to Barnea and Rubin (2010), this study casts doubt on the reasons behind CSR by indicating that different stakeholder groups may have different goals.

Institutional theory

Olaf Weber examines the connection between financial performance and sustainability policies in Chinese banks, through a bidirectional causal analysis of data from 2009 to 2018, the study discovers a strong positive correlation between business sustainability performance and financial measures such as net profit and total assets. This relationship, which is fuelled by China's Green Credit Policy, affirms the importance that regulatory frameworks play in fostering sustainable growth in the banking industry by indicating that Chinese banks may succeed financially while incorporating sustainability (Weber, 2017).

Signalling theory

Zerbini (2015) examines how CSR (corporate social responsibility) initiatives function as market signals in his work. It suggests that CSR can adopt a strategic approach by communicating to stakeholders a company's ethical principles, especially in information-asymmetric marketplaces. Based on a review of other studies on CSR signalling, the study concludes that CSR initiatives improve market positioning, stakeholder trust, and corporate reputation. A research agenda to fill up knowledge gaps on CSR's impact on business results and to further investigate its signalling role is provided in the conclusion.

stakeholders' theory

Azmi et al., (2020), in the study From 2011 to 2017, looks at how Environmental, Social, and Governance (ESG) practices affected the bottom line of 251 banks in 44 emerging economies. It discovers a nonlinear relationship using the Generalised Method of Moments, whereby moderate

ESG levels increase bank value, but high levels result in diminishing returns. Environmental initiatives, improve bank value by lowering equity costs and raising transparency, which has a favourable effect on cash flow and net interest margins. The study emphasises how ESG is a complex performance driver for developing market banks.

Environmental sustainability

The idea of environmental sustainability is predicated on the idea of ecosystem services, which include waste absorption capacity and both renewable and non-renewable resources that benefit people and hence enhance their wellbeing (Moldan et al., 2012).

According to Morelli, (2011), environmental sustainability refers to human civilisations' capacity to satisfy present demands without endangering the ecosystems that supply resources and services for coming generations.

Social sustainability

Social sustainability is defined as a state of life improvement in communities and a method by which communities might attain that state (Mckenzie, 2004). In order to achieve social sustainability, other qualities are crucial, such as the social processes and structures that will develop inside a community and guarantee the fulfilment of its constantly shifting requirements (Eizenberg & Jabareen, 2017).

Missimer et al., (2017), study focuses on social sustainability and its role within the Framework for Strategic Sustainable Development (FSSD). It highlights the importance of sustaining critical aspects of the social system to ensure people's ability to meet their needs now and in the future. The research identifies five essential elements for social sustainability which are trust, shared meaning, diversity, capacity for learning, and self-organization. These components are crucial for creating resilient social systems capable of adapting to change and overcoming challenges. The paper emphasizes using these insights to guide strategic planning and develop actionable principles for achieving long-term social sustainability.

Governance

Corporate sustainability is the company strategy that integrates the opportunities and hazards resulting from sustainable development (economic, environmental, and social) to create value for

the owners over the long term (or for corporate performance, etc.). To achieve compliance with corporate sustainability goals, a variety of policies and processes that will lessen adverse effects and increase beneficial ones must be incorporated into business operations (Salvioni, 2011).

The contribution of corporate governance encompasses both responsibility and company prosperity. Investors are becoming more active as global markets grow, and they are expecting greater levels of accountability, behaviour, and output (Kocmanová et al., 2011). Klírová (2001) asserts that corporate governance is a crucial component in the pursuit of economic efficiency and growth that justifies a rise in investor confidence. It includes a wide range of issues resulting from interactions among shareholders, administrative authorities, company management, and other stakeholders.

Firm financial Performance

Financial performance is the state of the company's finances over a specific period, including how money is collected and used, as determined by a number of metrics, including profitability, solvency, liquidity, leverage, and the capital adequacy ratio. The ability of the business to manage and control its resources is known as financial performance (IAI, 2016 as referenced in Fatihudin & Mochklas, 2018).

For the company to be managed effectively, performance measurement is therefore crucial. It is the primary source of the company's organisational and perceptual skills. To research and define the management strategy, forecast future internal and external conditions, track status and conduct in relation to its goals, and make timely decisions, performance must be measured (Taouab & Issor, 2019).

Empirical Review

ESG and firm financial performance

Research on the connection between financial success and ESG (Environmental, Social, and Governance) practices has produced conflicting findings. According to certain research, there is a favourable association between financial performance and high ESG engagement. Rosley et al. (2023), investigates how corporate performance is affected by ESG disclosures, with a particular emphasis on Malaysian companies. The research, which covers the years 2015 to 2020, concludes

that while environmental and social disclosures have no discernible effect, governance disclosures greatly enhance business performance as indicated by ROA. According to this study emphasises how crucial governance is to business performance and resilience in emerging markets.

Allam Hamdan and Bahaaeddin Ahmed Alareeni examine the effects of environmental, social, and governance (ESG) disclosures on business performance, using Tobin's Q, ROA, and ROE as metrics. Complete ESG disclosures have a favourable correlation with market and operational performance, according to panel regression analysis of S&P 500 data from 2009 to 2018. Market valuation is positively correlated with environmental and social disclosures, although financial metrics such as ROA and ROE are inversely correlated with them (Alareeni & Hamdan, 2020).

On the other hand, a negative association is suggested by other research, suggesting that ESG initiatives might occasionally result in expenses that reduce profitability.

Atan et al., (2018) examines the effects of ESG factors on the cost of capital, firm value, and profitability of Malaysian enterprises. There is no discernible correlation between any one ESG indicator and either firm value or profitability, according to the analysis of data from 54 companies. Nonetheless, the cost of financing is positively impacted by combined ESG scores, suggesting that stakeholders may still not have faith in ESG as a source of financial rewards.

Corporate Environmental responsibility and Financial Performance

Environmental initiatives, improve bank value by lowering equity costs and boosting transparency, which has a favourable effect on cash flow and net interest margins (Shakil et al., 2019). Short-term profitability may be impacted by the costs associated with individual elements, such as environmental disclosures (Alareeni & Hamdan, 2020). Liu et al., (2020) investigates the relationship between corporate environmental responsibility (CER) and financial performance using data from Chinese top listed companies from 2008 to 2017. Findings indicate that fulfilling environmental responsibilities enhances financial performance by improving operating efficiency, reputation, and competitiveness.

Jo et al., (2013) examines how corporate environmental responsibility (CER) impacts financial performance (CFP) in manufacturing firms worldwide. Using data from 30 countries over a 10-year period, it highlights how reducing environmental costs can significantly enhance firm performance, particularly in the long term. The findings suggest that industries with high environmental costs, like basic resources and food, see more pronounced benefits from cost reduction, while technology and telecommunications industries face lower costs.

Corporate social responsibility and Financial Performance

Corporate social responsibility (CSR) initiatives improve a company's financial performance by increasing profitability, brand value, and customer loyalty (Barnea & Rubin, 2010). By filling in institutional gaps, CSR improves a company's financial results (Su et al., 2014). CSR initiatives improve stakeholder trust, market positioning, and corporate reputation (Zerbini, 2015).

Corporate governance and Financial Performance

Rosley et al., (2023), in his study emphasises how crucial governance is to business performance and resilience in emerging markets. While governance has no discernible effect, it is discovered that social and environmental performance have a favourable correlation with financial outcomes (Su et al., 2014). Aggarwal, (2013) explores the impact of corporate governance on financial performance among 20 Indian companies listed on the NSE Nifty 50 Index from 2010 to 2012. It uses metrics such as Return on Assets (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE), and Profit Before Tax (PBT) as measures of financial performance. The results show a positive and significant relationship between governance ratings and financial performance, indicating that companies with better governance structures perform better financially.

Control Variables: Company Size, Leverage, and the GDP

When assessing business sustainability performance, the asset database has a firm size bias (Drempetic et al., 2020). Three facets of national or regional production are measured by GDP: value added, labour and capital factor incomes, and the consumption and investment of finished goods and services (Schuller, 2014).

Leverage on the other hand is a measure of how much a business depends on debt funding to run its operations. Due to the expense of the reporting process, companies with high levels of financial leverage appear to refrain from disclosing corporate information, whereas those with low levels of financial leverage appear to have greater freedom to do so when it comes to CSR information (Giannarakis, 2014).

Conceptual Framework

In this model, we are looking at Firm’s Financial Performance (FP), which we measure using Return on Equity (ROE), to understand what factors can affect it. The main focus is on Corporate Sustainability (CS) and its three key parts, Environmental, Social, and Governance, often referred to as ESG. These are the primary factors that are thought to influence how well a company performs financially.

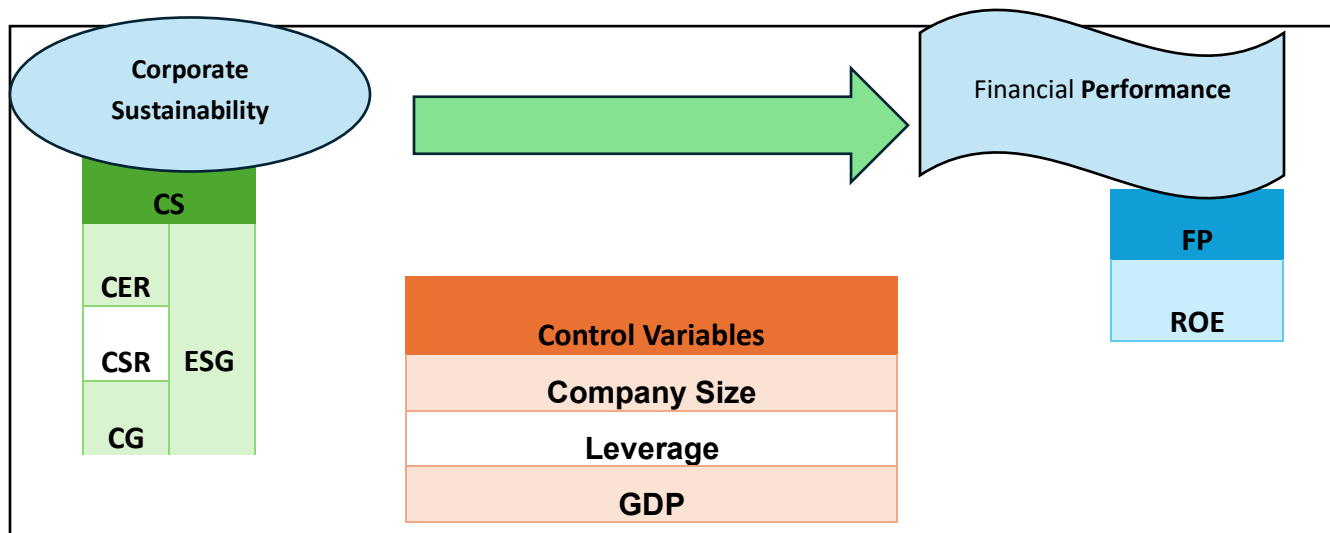


Figure : Conceptual Framework

(Created by author 2024)

However, financial performance can be influenced by other things too, beyond just ESG. To get a clearer and more complete picture of how CS affects financial performance, we also consider control variables. These include factors like financial leverage, which measures how much debt a

company uses, company size, which measures how large the company is in terms of assets or revenue, and GDP, which measures the overall economic conditions that might influence business performance. By adding these control variables, we can better understand how CS influences financial performance while also considering the impact of these other factors.

Research Hypothesis

ESG and firm financial performance

H₁: ESG responsibility has a positive influence on firms' financial performance.

Corporate Environmental responsibility and Financial Performance

H₂: Corporate environmental responsibility has a positive influence on firms' financial performance.

Corporate social responsibility and Financial Performance

H₃: Corporate social responsibility has a positive influence on firms' financial performance.

Corporate social responsibility and Financial Performance

H₄: Corporate governance responsibility has a positive influence on firms' financial performance.

METHODOLOGY

The Nigerian Exchange (NGX) is the top listing location in Africa for governments, corporations, and foreign issuers seeking to generate money, prompt expansion, and boost their visibility. There were 370 listed securities, a total market capitalisation of N105.9 trillion, and 152 entries as of December 11, 2024 (Nigerian Exchange Group, 2023).

The philosophy of this study is based on positivism, which assumes that knowledge exists independently of the researcher's opinions or perspectives and can be discovered through objective observation and analysis. The study uses a deductive approach, meaning it starts by developing hypotheses based on a thorough review of existing research and theories. These hypotheses are then tested in various situations to determine if they are valid and applicable.

This study uses a case study approach, focusing on a specific country and analysing data related to that economy. The data used is secondary, meaning it was collected from existing sources rather than gathered firsthand. A mono-method approach was applied, which means the study followed

a single, consistent research method throughout. Additionally, the study adopted a cross-sectional time horizon, concentrating on data collected at a specific point in time rather than over a longer period. The research focuses on companies that are listed on the Nigeria Exchange Group (NGX). As of 2023, there are 153 companies officially listed on the NGX (according to the Nigerian Exchange Group, 2023).

To study the effect of corporate sustainability on businesses' financial performance, panel data regression using the pooled ordinary least square (OLS) was used (Xu et al., 2007). To determine whether the study should use a fixed effect (FE) or random effect (RE) model, the Hausman test (also called the model misspecification test) was conducted. This test helps identify the most appropriate model for analysing the data. The study also includes specific equations for Ordinary Least Squares (OLS) estimation, which were used to analyse the relationships between variables.

$$Y = b_0 + b_1X_1 + b_2X_2 + \dots + b_kX_k + v$$

$$ROE_{i,t} = \alpha + \beta ESG_{i,t} + \beta ES_{i,t} + \beta SS_{i,t} + \beta GS_{i,t} + \beta SIZE_{i,t} + \beta LEV_{i,t} + \beta GDP_{i,t} + \epsilon_{i,t}$$

were

α = constant value,

β = beta value that explains the variation in the dependent variables

ϵ = the error term.

Variables	Acronym	Proxy
Financial Performance	ROE	Return on equity
Corporate Sustainability Performance	ESG	Environmental, social and governance score
	ES	Environmental score
	SS	Social score
	GS	Governance score
Firm-Specific Control	Size	Logarithm total assets

Country	Financial Leverage	Total debts to total assets		
	Economic growth	GDP growth	Gross domestic product growth	

DATA ANALYSIS

Descriptive Statistics

The goal of descriptive analytics, a subfield of data analytics, is to summarise and analyse past data to identify patterns, trends, and connections. To meaningfully define and exhibit data, a variety of statistical and visualisation techniques are employed (Kanade, 2023).

Table: Descriptive Statistics NGX firms

	N	Minimum	Maximum	Mean	Std. Deviation
ESG	319	.00	66.13	29.1841	11.78453
ED	319	.00	65.33	9.1463	13.99158
SD	319	.00	52.36	17.5406	12.70105
GD	319	.00	90.55	60.7498	18.20378
ROE	349	-149.69	189.53	16.1839	32.18197
LEV	353	.00	7399.59	131.9917	409.20401
SIZE	366	5.59	32480.72	3759.8907	6266.39599
GDP	11	-2.00	7.00	2.8182	2.60070
Valid	N 0				
(listwise)					

Author's Compilation (SPSS), 2024



The table presents an analysis of corporate sustainability in Nigerian companies by examining both their financial performance and their disclosure of environmental, social, and governance (ESG) practices. The average Return on Equity (ROE), which measures financial performance, was 16.18%, suggesting that, on average, these companies are generating a reasonable return for their shareholders.

When it comes to ESG practices, the table shows that companies are more focused on governance, as it received the highest average score of 60.75%. Governance includes factors like management structure, internal controls, and transparency. In comparison, social factors, which involve how companies impact communities, workers, and other stakeholders, scored an average of 17.54%. Environmental factors, such as the company's efforts to manage its impact on the environment, scored the lowest at 9.15%. This distribution indicates that Nigerian companies are putting more effort into governance related disclosures than into addressing social and environmental concerns.

The overall average ESG disclosure score for these companies was 29.18%, which is relatively low, meaning that there is room for significant improvement in the transparency and reporting of ESG practices. Additionally, the maximum ESG score achieved was 66.13%, which is still underwhelming when compared to the peak scores in individual ESG categories. Specifically, the highest score for the environmental dimension was 65.33%, for social it was 52.36%, and for governance, it was 90.55%. These figures suggest that while companies are doing somewhat better in governance related disclosures, their efforts in the environmental and social dimensions still have a long way to go.

In this analysis, we also looked at several control variables that could influence the companies' sustainability and financial performance. One of these variables is company size, which we measured by taking the natural logarithm of the company's total assets. The average value for company size was N3758.89, indicating the general scale of the companies included in the study. Another important factor is financial leverage, which reflects how much debt a company

uses in relation to its equity. On average, financial leverage was 131.99%, showing that, overall, Nigerian companies rely on a significant amount of debt to finance their operations. Lastly, we considered the country's economic growth, which we measured using GDP growth. The average GDP growth across the country was 2.81%, indicating a modest level of economic expansion during the period of the study.

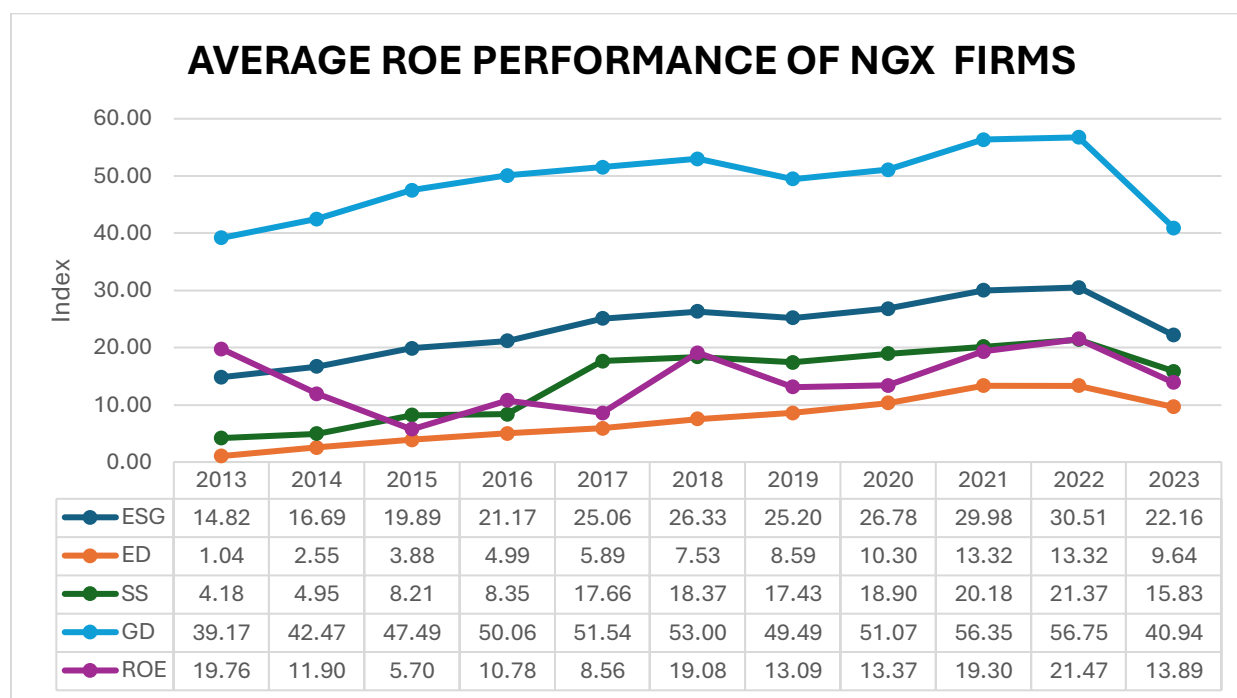


Figure : Average ROE Performance of NGX Firms

Author's Compilation, 2024

The data reveals a noticeable pattern when we look at Governance Disclosure (GD) and its relationship with financial performance, specifically Return on Equity (ROE). It shows that the trend in Governance Disclosure is strongly aligned with ROE, suggesting that the quality and transparency of governance practices in companies are an important factor in determining how well a company performs financially. In other words, companies with better governance practices tend to have higher returns on equity.

On the other hand, when we look at the Social Disclosure (SD) and Environmental Disclosure (ED), the patterns are less consistent. These components show more fluctuating averages over the years, meaning their levels change more unpredictably. Unlike governance, the trends in social and environmental disclosures don't seem to follow the same clear and steady variation as ROE, indicating that social and environmental factors may not have as direct or as strong an influence on financial performance in comparison to governance practices.

Validity Tests

Variance Inflation Factor (VIF)

Table : VIF Test

Variable	Collinearity	
	Tolerance	Statistics VIF
ED	0.504	1.968
SD	0.470	2.127
GD	0.801	1.249
LEV	0.983	1.018
SIZE	0.956	1.046

Author's Compilation (SPSS), 2024

Multicollinearity refers to a situation in a regression model where two or more independent variables are highly correlated with each other. This means that they are providing overlapping or redundant information, which can make it difficult to determine the individual effect of each variable on the dependent variable. While a small amount of multicollinearity might not cause serious problems, moderate or high levels can create issues, such as unreliable estimates of the regression coefficients, which can affect the accuracy and interpretation of the results (Daoud, 2017).

In this study, we assessed the presence of multicollinearity using the Variance Inflation Factor (VIF) test, as shown in Table 4.2. The results from this test indicate that none of the variables in the model have a VIF value higher than 3, which suggests that there is no significant multicollinearity among the variables. The highest VIF recorded was 2.127 for the Social Disclosure (SD) variable, but this is still well below the commonly used threshold of 10, meaning that it does not raise any concerns.

Durbin Watson Test Statistics

Model	R	R Square	Adjusted R Square	Durbin-Watson
1	.346 ^a	.120	.105	1.082

(SPSS, 2024)

According to Akter (2014), one of the commonly used tests for detecting autocorrelation in regression models is the Durbin Watson (DW) test. Autocorrelation refers to a situation where the residuals which are the differences between the observed and predicted values in a regression model are correlated with each other. This can cause problems because it means that the model's predictions are not independent of each other, which can affect the reliability of the results.

The Durbin Watson test is used to detect whether autocorrelation exists in the residuals of the regression model. The value of the DW statistic typically ranges from 0 to 4, with a value closer to 2 suggesting no autocorrelation. Values lower than 2 indicate positive autocorrelation, while values higher than 2 indicate negative autocorrelation.

In this study, the Durbin-Watson test statistic is 1.082, which is much lower than 2. While a value below 2 can suggest the presence of some autocorrelation, the closer the value is to 2, the less of an issue autocorrelation becomes. Since the DW value here is far from the extreme ends of the scale that is closer to 0 or 4, and particularly less than 2, it indicates that there is no significant

autocorrelation in the residuals of the regression model. This means the model's residuals are not strongly correlated, and the results can be considered reliable in terms of autocorrelation.

Correlation Analysis

Table : Correlations

	ROE	ESG	ED	SD	GD	LEV	SIZE	GDP
ROE	1							
ESG	0.211**	1						
ED	0.174**	0.760**	1					
SD	0.131*	0.838**	0.648**	1				
GD	0.183**	0.773**	0.256**	0.433**	1			
LEV	-0.201**	-0.077	-0.057	-0.033	-0.082	1		
SIZE	0.033	0.278**	0.035	0.208**	0.366**	0.027	1	
GDP	0	0	0	0	0	0	0	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Author's Compilation (SPSS), 2024

The correlation coefficient between the overall ESG score and ROE is 0.211, which indicates a positive relationship. This means that as a company's ESG score increases, its financial performance as measured by ROE tends to improve as well.

When we break down the overall ESG score into its three components, environmental, social, and governance, governance emerges as the strongest factor. The correlation between governance and ROE is 0.183, which is the highest among the three dimensions. This suggests that governance practices, such as management structures, policies, and transparency, have the most significant impact on a company's financial performance.

Next, the environmental score shows a similarly strong relationship with ROE, with a correlation coefficient of 0.173. This indicates that companies that perform well in environmental areas, such as reducing their environmental impact or engaging in sustainable practices, also tend to have higher financial performance.

Finally, the social score, while still important, shows a slightly lower correlation with ROE, with a coefficient of 0.131. This means that while social factors, such as employee welfare, community engagement, and ethical practices, do influence financial performance, the effect is somewhat weaker compared to governance and environmental factors.

Panel Regression Analysis

The study uses Fixed Effects (FE) and ordinary least square (OLS) regression methods to analyse panel data and enhance the accuracy of regression coefficients for deeper insights.

Regression Analysis Between ESG and Firm's financial Performance

The panel regression analysis examines the relationship between ESG and Firm's financial Performance.

$$ROE_{i,t} = \alpha + \beta ESG_{i,t} + \beta SIZE_{i,t} + \beta LEV_{i,t} + \beta GDP_{i,t} + \epsilon_{i,t}$$

Table : Regression Between ESG and Firm's financial Performance

Variables	B	T	sig	Correlation
(Constant)		0.047	0.962	
ESG	0.216	3.946	<0.001	0.238
LEV	-0.235	-4.354	<0.001	-0.255
SIZE	-0.001	-0.017	0.987	01.035
R2	0.111			
Adjusted R2	0.103			
F-statistic	12.820			

a. Dependent Variable: ROE

Author's Compilation (SPSS), 2024

The regression analysis reveals that sustainability, measured by the overall ESG score, has a positive and statistically significant impact on a company's financial performance, specifically its

Return on Equity (ROE). The regression coefficient for ESG is 0.216, which means that for every one unit increase in the ESG score, the ROE increases by 0.216 units, assuming all other factors stay the same. The t-statistic for this coefficient is 3.946, and the significance value (p-value) is less than 0.001, indicating that this relationship is highly statistically significant. In other words, the evidence strongly suggests that improvements in sustainability practices (ESG) lead to better financial performance, as measured by ROE.

In addition to ESG, the regression analysis also shows that other variables, such as financial leverage and company size (SIZE), have statistically significant effects on ROE. This means that changes in these variables also play a role in influencing the company's return on equity. However, when we look at GDP growth, which represents the economic growth of the country, the analysis shows that it has no significant impact or correlation with ROE during the period under study. In other words, changes in the national economy (GDP) do not appear to directly affect the financial performance of the companies in this study.

The adjusted R^2 value of 0.103 means that the independent variables in the model such as ESG, leverage, company size, and GDP explain about 10.3% of the variation in Return on Equity (ROE). This suggests that the model only captures a small portion of what influences ROE, indicating a relatively weak fit for the model. In other words, there are many other factors outside of the variables included in the model that are affecting ROE, but these factors are not accounted for in the analysis.

However, the F-statistic of 12.820, which is statistically significant at the 0.01 level, helps to validate the overall significance of the model. The F-statistic tests whether the independent variables, as a group, have a significant effect on the dependent variable (ROE). Since the F-statistic is significant, it indicates that, even though the model's explanatory power is low, the independent variables together still have a meaningful influence on ROE. Essentially, while the model is not a perfect fit, it is still statistically relevant and contributes valuable insights into the factors affecting financial performance.

Regression Analysis Between ESG Components and Firm Performance

The regression analysis examines the impact of ESG components on firm performance from 2013 to 2023.

$$ROE_{i,t} = \alpha + \beta_{ES}i_{i,t} + \beta_{SS}i_{i,t} + \beta_{GS}i_{i,t} + \beta_{SIZE}i_{i,t} + \beta_{LEV}i_{i,t} + \beta_{GD}P_{i,t} + \epsilon_{i,t}$$

Table : Regression Between ESG component and Firm's financial Performance

variables	Beta	t	sig	Correlation
(Constant)		-0.216	0.829	
ED	0.171	2.267	0.024	0.195
SD	-0.054	-0.690	0.491	0.136
GD	0.162	2.698	0.007	0.220
LEV	-0.228	-4.202	0.000	-0.255
SIZE	-0.001	-0.012	0.990	0.035
R2	0.120			
Adjusted R2	0.105			
F-statistic	8.290			

a. Dependent Variable: ROE

Author's Compilation (SPSS), 2024

In the results shown in the table, the coefficients (β values) and statistical tests for the environmental disclosure (ED), governance disclosure (GD), and social disclosure (SD) variables provide important insights into how each of these factors influences Return on Equity (ROE). For environmental disclosure (ED), the β value is 0.171, meaning that a one unit increase in ED is associated with a 0.171 unit increase in ROE, assuming other factors stay the same. The t-statistic is 2.267, which is statistically significant with a p-value significance of 0.024. This indicates that the relationship between environmental disclosure and ROE is both positive and statistically

significant, meaning that better environmental practices tend to lead to better financial performance.

Similarly, governance disclosure (GD) has a β of 0.162, which means that improvements in governance practices are associated with a 0.162 unit increase in ROE. The t-statistic for GD is 2.698, and the significance value is 0.007, both of which indicate a strong and statistically significant positive effect on ROE. This suggests that good governance practices, such as strong management and transparent reporting, positively influence a company's financial success. However, the social disclosure (SD) has a β of -0.054, which means that higher social disclosure is associated with a decrease in ROE by 0.054 units. The t-statistic for SD is -0.690, and the significance value is 0.490, which is not statistically significant. This indicates that social disclosure has a negative, but not statistically meaningful, impact on ROE. In other words, while the data suggests a slight negative relationship between social practices and financial performance, this effect is not strong or reliable enough to be considered significant.

The adjusted R^2 value of 0.105 indicates that about 10.5% of the variation in ROE can be explained by the combined effects of the ESG components (Environmental, Social, and Governance disclosures) and the control variables (SIZE, LEV, and GDP). While this suggests that the model captures a small portion of the factors that influence ROE, it shows that there are many other unaccounted factors that may also affect ROE.

Furthermore, the F-statistic of 8.290, which is statistically significant at $p < 0.001$, indicates that the model as a whole fits the data well. The F-statistic tests whether the independent variables, together, have a meaningful effect on ROE. Since this value is significant, it confirms that the model is useful and that the variables included in the analysis collectively explain a portion of the variation in ROE. In simple terms, although the model doesn't explain everything about ROE, it still provides valuable insight into how ESG factors and control variables relate to a company's financial performance.

Hypothesis Testing

Panel regression analysis and correlation were employed in the study to evaluate the hypotheses formulated to address the research questions and attain the goals. The results of the investigated hypotheses were precisely interpreted using panel regression.

Table : Hypotheses Testing Summary

Author’s Compilation, 2024

	Hypotheses		Tool	Result
H ₁	<i>ESG responsibility positive influence on firms' financial performance</i>	ROE	FE Regression	Supported
H ₂	<i>ER responsibility positive influence on firms' financial performance</i>	ROE	FE Regression	Supported
H ₃	<i>SR responsibility positive influence on firms' financial performance</i>	ROE	FE Regression	Not Supported
H ₄	<i>GR responsibility positive influence on firms' financial performance</i>	ROE	FE Regression	Supported

In summary, the findings of the study provide support for Hypothesis H1, which states that ESG practices have a significant impact on a company's financial performance, measured by Return on Equity (ROE). The data confirms this relationship, meaning that companies with higher ESG scores tend to perform better financially, as reflected in their ROE.

The study also supports Hypothesis H2, which suggests that environmental responsibility (ER), or how well a company manages its environmental impact, significantly affects its financial performance. The results show that companies with stronger environmental practices tend to see better financial outcomes in terms of ROE during the period studied.

However, the study does not support Hypothesis H3, which proposed that social responsibility (SR) has a significant impact on a firm's financial performance. The findings reveal that social responsibility, while potentially influencing other areas, does not have a meaningful effect on ROE

in this study. As a result, Hypothesis H3 is rejected, meaning there is no significant evidence to suggest that social factors directly impact financial performance in the companies analysed.

DISCUSSION OF THE FINDINGS

The results presented reveal a positive correlation between the financial performance of the companies, specifically their Return on Equity (ROE), and their Environmental, Social, and Governance (ESG) scores. In simpler terms, this means that companies that engage more actively in ESG practices tend to have better financial outcomes. The higher the ESG score, the better the company's financial performance, as reflected in their ROE. This finding aligns with the conclusions of other similar studies, which have also shown that implementing ESG practices tends to have a positive effect on a company's financial success. In particular, this result supports the idea put forward by stakeholder theory, which emphasizes the importance of addressing the needs and interests of all stakeholders not just shareholders but also employees, customers, communities, and the environment. The theory suggests that when companies focus on satisfying these broader interests, it can lead to better overall performance, including financial results.

The study found that corporate environmental practices did not have a significant impact on financial performance, as measured by Return on Equity (ROE). While the environmental score showed a positive Beta value, meaning there was a slight positive relationship with ROE, the environmental dimension of ESG had the lowest average score among the three ESG categories (Environmental, Social, and Governance). This suggests that, compared to social and governance practices, companies in the study were less focused on environmental activities, and when they did engage in them, it did not strongly affect their financial performance.

The result suggests that while environmental practices may be important for a company's reputation and long-term sustainability, they may not always immediately translate into improved financial performance, particularly if those practices are not fully integrated into the company's operations or strategy.

As a result, the Null hypothesis H3, which proposed that social responsibility has a positive effect on financial performance, was rejected. In other words, the study found no evidence to support the idea that engaging in social responsibility activities leads to better financial performance.

This finding contrasts with previous research conducted by scholars like Zerbini (2015), Su et al. (2014), and Barnea & Rubin (2010), who all suggested that corporate social responsibility (CSR) could improve a company's financial performance. Their research found that CSR activities could enhance profitability, increase brand value, and boost customer loyalty, which in turn would positively impact financial outcomes.

Major Findings of the Study

The purpose of this study is to investigate how ESG and its constituent parts affected corporate financial performance of NGX listed firms from 2013 to 2023. Panel regression and correlation analysis were used. Below is a summary of the main conclusions:

- *ESG responsibility has a positive influence on firms' financial performance*
- *Corporate environmental responsibility has no positive influence on firms' financial performance.*
- *Corporate Social responsibility has no positive influence on firms' financial performance.*
- *Corporate governance responsibility has a positive influence on firms' financial performance.*

The OLS regression confirmed that ESG practices, governance practices, and GDP growth were important drivers of financial performance. Finally, Firm Size and Leverage has adverse relationship with firm's financial performance while GDP has no significant relationship with firm financial performance during the periods.

CONCLUSION

This study explored the relationship between the financial performance of companies listed on the Nigerian Stock Exchange and their corporate sustainability practices, specifically focusing on

Environmental, Social, and Governance (ESG) factors, over a period from 2013 to 2023. The primary aim was to understand how ESG activities influence financial performance, with Return on Equity (ROE) being used as the key measure of firm performance.

The results revealed a positive connection between ESG practices and ROE during the study period. This means that companies that actively adopted and implemented ESG principles saw a noticeable improvement in their financial performance, as reflected in their ROE. More specifically, the study found that corporate governance, as a component of ESG, had a significant positive impact on financial performance. Companies with strong governance practices were able to generate higher returns for their shareholders.

However, the study also found that certain components of ESG, such as corporate environmental responsibility and corporate social responsibility, did not show a significant impact on financial performance. In fact, some of these components had a negative relationship with ROE, meaning that companies focusing more on environmental or social issues did not necessarily see improvements in their financial returns, at least during this period.

Despite this, the overall findings suggest that incorporating ESG practices, especially strong governance, can enhance shareholder value and attract more investors. This aligns with the stakeholder theory, which posits that focusing on the interests of all stakeholders, including shareholders, employees, customers, and the community can lead to better overall business performance and financial results. Similar outcomes have been reported by other researchers, such as Alareeni and Hamdan (2020), Su et al. (2014), and Zerbini (2017), all of whom found a positive link between corporate sustainability efforts and improved financial performance.

Recommendations

From a research standpoint, the study contributes to the body of knowledge on sustainable finance and ESG investing by offering empirical data based on stakeholder theory. The study recommends the followings:

- Academics- This study creates an opportunity for future research to explore the dynamics of ESG practices in more detail, especially as companies start providing more transparency

and disclosure about their sustainability efforts. As more data becomes available, researchers will be able to better understand how corporate sustainability initiatives can positively impact financial performance. This can lead to a deeper understanding of the connection between ESG activities and a company's success, encouraging firms to adopt more sustainable practices for long-term growth.

- Stakeholders- The study strongly supports the idea that businesses can achieve long-term success and resilience by considering the interests of all stakeholders including shareholders, employees, customers, and the broader community. This approach is grounded in stakeholder theory, which suggests that when companies focus on creating value for a wide range of groups, not just their shareholders, they are more likely to thrive over time.
- Regulators and policymakers- The study emphasizes the urgent need for clear and enforceable rules regarding ESG disclosures within the economy being studied. It points out that the current ESG reporting system is not sufficient, with many companies either not actively participating in ESG practices or providing only limited information about their efforts. This lack of detailed and meaningful reporting creates gaps in transparency, making it difficult for stakeholders, such as investors and the public, to assess companies' true commitment to sustainability. Therefore, the study calls for stronger guidelines to ensure companies clearly communicate their ESG activities and the impact of their actions on the environment, society, and governance.
- Managers- Management must take proactive steps to integrate and capitalize on ESG (Environmental, Social, and Governance) activities as a strategic tool to enhance their business operations and market presence. By actively engaging in ESG initiatives, companies can not only demonstrate their commitment to sustainability but also improve their public image and attract socially responsible investors.

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