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IMPACT OF CORPORATE SUSTAINABILITY REPORTING ON FIRM GROWTH: EVIDENCE FROM LISTED NATURAL RESOURCES COMPANIES IN NIGERIA

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Abstract

This study adopts correlational research design to determine the impact of corporate sustainability reporting on firm growth of listed natural resources companies in Nigerian. Secondary data were sourced from financial reports of sampled companies for a nine year period spanning 2013 to 2021. Quantile regression was employed for data analysis using STATA 13 software. Findings reveal both positive and negative significant impact of EcoSR and SocSR on firm growth, respectively, while the impact of EnvSR on firm growth is negatively non-significant at 25% quantile. The study concludes that sustainability reporting (EcoSR and SocSR) of listed natural resources companies in Nigeria significantly impacts their growth. The study recommends, among other recommendations, that the companies' management should improve their commitment to addressing environmental issues, while also engaging in the education of stakeholder in order to enhance their understanding of their environmental report.

Key words:
Sustainability reporting, environmental reporting, firm growth, social reporting, governance reporting

Introduction

Within the last few decades, corporate sustainability practice has gained prominence among corporations across the globe following calls by global stakeholders for a more responsible global actions towards sustainability as a result of challenges posed by climate change and other related phenomena. Advocacies by International organizations and certain multi-lateral arrangements such as the World Commission on Environment and Development (WCED), the Brundtland Report on bridging the gap between environmental and human development concerns, the United Nation (UN) framework convention on climate change, the 2030 agenda for sustainable development among others, gave impetus to the advancement of sustainability course across the globe.

Corporate sustainability practice (CSP) entails the fusion of environmental, social and governance (ESG) framework with corporate business models in order to build a lasting, responsible reputation, and gain competitive advantage which could drive corporations' performance towards

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achieving stakeholders' needs. The use of ESG sustainability indicators in business has been shown to provide huge benefits such as increased efficiency, easier access to financing, customer loyalty, company reputation, cost savings, and increased innovation capability (Arrive et al., 2019; Ferrero-Ferrero et al., 2016). Considering the benefits of sustainability practice to corporate organizations, and the need to deliver full and comprehensive corporate report following the identified limitations of traditional accounting report (Mohammad, 2017), believed to be insufficient in providing for the information needs of corporate stakeholders, corporate organizations across the world have adopted reporting model with the capacity to address the limitations of the traditional accounting report. This reporting methodology provides data on both financial and non-financial metrics relating to environmental, social, and governance (ESG) practices, indicating both positive elements and negative elements of corporates' performance (Emeka-Nwokeji & Osisioma, 2019).

While companies' environmental reporting practice provides information about corporation's ecological control effort, environmental cost, and that of corporate life cycle analysis (Belu, 2009 cited in Szekely & vom Brocke, 2017) of their impact on the environment, affecting the larger business stakeholders, the social sustainability reporting relays information about the impact of corporations' activities on the general social systems which include labour practices, rights of human stakeholders and operational community relationship (GRI., 2013), whereas governance reporting communicates the processes and procedures by which firms' are directed and controlled (OECD, 2018). According to Adebimpe, et al. (2015), the three main areas of concern that have arisen as essential variables in the determination of the impact of investment's sustainability and ethics in a corporation is the corporation's environmental, social, and governance (ESG) practices. However, KPMG (2023) contends that the GRI standards which provide a comprehensive list of reporting items on environmental, economic and social sustainability is the most used, and internationally recognized reporting framework, despite the existence of other sustainability reporting frameworks. In the light of this, sustainability reporting in this study is represented by environmental, economic, and social sustainability reporting as per the GRI guidelines.

Despite its voluntary status in some jurisdictions, sustainability reporting has continued to gain acceptance by corporate organizations as they undertake to incorporate information about their sustainability practice in their annual reports. This has attracted the attention of researchers across the globe. While some scholars researched on the impact of sustainability reporting on certain accounting-based performance measures (Obiamaka, 2015; Erhirhie and Ekwueme, 2019; Aifuwa, 2020; Nzekwe, et. al., 2021; Abiodun, 2022), others tried linking it with market-based performance measure (Najul, 2016; Tri and Yuni, 2018; Emeka-Nwokeji and Osisioma, 2019; Salim, et al., 2021; Ighosewe, 2021; Nguyen, et al. 2022; Nwaigwe, et al., 2022). The general research objectives of these groups of sustainability studies were identified to be the determination of the benefit of such corporate reporting practice to shareholders through its influence on the different measures of performance, observed to have direct impact on shareholders' interest. Though scanty, studies that aimed at determining the influence of sustainability reporting on other corporate stakeholders' interest tried linking such reporting practice with certain corporate growth parameters (Fiaz and Saba, 2015; Mihai, et al., 2019). Outcome of these studies were however, inconsistent, thus creating room for continuous research. Also, none of the corporate sustainability reporting and firm growth studies was conducted in Nigeria, and in the natural resources sector of the economy, as per the researcher's knowledge.

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Consequently, the study determines the impact of corporate sustainability reporting on certain firm growth parameters of listed natural resources companies in Nigeria. The study is conducted in the natural resources sector because of its perceived impact of the companies' activities on the natural environment, and on sources of human livelihood. The study majorly aimed at ascertaining the impact of the companies' sustainability reporting (environmental, economic and social reporting) on their growth (i.e. sales growth), which could affect the interest of their external stakeholders as well. Based on the major objective of the study, other specific objectives aimed at are:

1. To determine the impact of environmental sustainability reporting on sales growth of listed natural resources companies in Nigeria.
2. To determine the impact of economic sustainability reporting on sales growth of listed natural resources companies in Nigeria
3. To determine the impact of social sustainability reporting on sales growth of listed natural resources companies in Nigeria.

Based on the above stated objectives, the study hypothesized in null form, as follows:

$\mathbf{HO}_1$ = Environmental sustainability reporting has no significant impact on sales growth of listed Natural resources companies in Nigeria.

$\mathbf{HO}_2$ = Economic sustainability reporting has no significant impact on sales growth of listed Natural resources companies in Nigeria.

$\mathbf{HO}_3$ = Social sustainability reporting has no significant impact on sales growth of listed Natural resources companies in Nigeria.

The study contributes to accounting knowledge by providing insight into the essence of engaging in non-financial reporting as such information, more than ever before, is considered important in shaping corporate stakeholders' decision behavior, and the survival of companies in the face of growing environmental and social catastrophe resulting from their activities. Also, the study provides new information framework through which corporates and government's employment policy could be directed towards achieving a more sustainable economy that would balance policies and practice in a manner that enhances economic activities.

The rest of the paper is structured into sections 2, 3, 4, and 5, with section 2 being literature review, section 3, methodology of the study, and section 4, presents data analysis and discussion of results, while section 5 discusses conclusion and recommendation.

Literature Review

This section reviews relevant literature, while conceptualizing the variables of the study (sustainability reporting and firm growth); it discusses the theories underpinning the study, and reviews extant empirical studies linking sustainability reporting with financial performance.

Conceptual Framework

Concept of Firm Growth

The concept of firm growth has been defined by Penrose (1995) from two viewpoints. Firstly, it is referred to as increase in a specific amount about certain firm parameters such as sales revenue, production, or exports, over time, whereas in the second viewpoint, it is seen as a specific

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development process akin to biological processes, that results in an increase in size or improvements in quality. From whichever perspective it is viewed, firm growth is a significant business component for owners, managers, and investors alike because it provides a reasonably accurate estimate of the corporation's performance. (Mana, et al. 2020). As much as firm growth is important to shareholders, Coad and Holzl (2012) contend that it is also important to other stakeholders who could be considered indirect to the business such as policy makers (government) because of its importance for job creation and increased productivity. According to Mercedes (2007), firm growth is relevant for employment, since firm's positive growth rate could imply a net creation of new jobs, whereas its negative growth rate implies net destruction of jobs.

In research literature, firm growth is measured differently. Stephan (2015) contends that the choice of company growth indicators in academic research studies is very varied, and that there is currently no agreement on a general indicator in firm growth studies. For example, sales revenue and employee growth were used to proxy firm growth by some researchers in their study (Serap, 2014 and Mana, et al., 2020, and Yolanda & Beatriz, 2018) respectively, among other measures. Others used firm's financially-derived measures as indicators of firm growth, return on investment (Bourgeois, 1985), dividends (Varaiya, et al. 1987; Hamilton and Shergill, 1992), earnings per share (Bourgeois, 1985; Hamilton and Shergill, 1992), among other measures.

In the light of the preceding, firm growth is considered in this study as any change in a business leading to increase in its operational activities, which in turn drives its performance. This definition aligns with the business expansion perspective of firm growth, believed to have beneficial impact on societal stakeholders by way of creating opportunities to the society. Based on the foregoing, this study measures firm growth as the percentage increase in sales revenue, in line with Manal, et al. (2020); Serap (2014).

Concept of Sustainability Reporting

The concept of sustainability takes its roots in sustainable development, which refers to keeping with the present generational needs while also preserving the capacity to meet future generational needs (Indra, 2021). Communicating corporations' effort regarding this is what makes sustainability reporting. Sustainability reporting is the disclosure and communication of the goals of organizations' as they concern their environmental, social, and governance (ESG) initiatives, and their progress towards achieving such goals (Lumen, 2021); it also concerns the disclosure of information on how responsible a company portrays itself regarding its handling of environmental, social and governance (ESG) issues (Emeka-Nwokeji & Osisioma, 2019). Arising out of growing need for corporations to prove the legitimacy and responsibility of their operations towards addressing ESG related challenges, sustainability reporting has been sought after by business stakeholders, investors, regulators and creditors which engendered its inclusion in corporates' annual reports.

Sustainability reporting is delivered by companies on the basis of different guidelines and standards established by certain organizations, the Global Reporting Initiative (GRI), the Sustainability Accounting Standard Board (SASB), the United Nations Global Compact (UNGC), International Finance Corporation Sustainability Framework (IFCSF), and the Nigerian Stock Exchange (NSE) Sustainability Disclosure Guidelines, among many others. These sustainability reporting standards and frameworks provide bases for measurement of sustainability reporting for theoretical research purpose. Many extant literatures, Najul (2016), Abiodun (2022), Nwaigwe,

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et al. (2022), etc. have measured sustainability reporting through indexing of the various reporting items presented in those standards with GRI being the most patronized.

Empirical Review

Sustainability reporting is generally about relaying information about how companies depict themselves in terms of being responsible to issues surrounding their environmental, social and governance (ESG) practices (Emeka-Nwokeji & Osisioma, 2019). This practice has proven to have certain incentives for corporate organizations as documented by research studies. Though many studies used sustainability reporting index to generate a cumulative measure while determining its impact on performance, others however, employed a disintegrated approach by representing sustainability reporting with environmental, social, governance or economic sustainability reporting in ascertaining its association with different measures of corporate performance. Generally, this study reviews sustainability studies as under to determine gaps and justify its relevance.

Obiamaka, (2015), determined the relationship between sustainability reporting and certain accounting measures of performance, specifically, Profit after Tax (PAT), and shareholders fund, sampling eight deposit money banks in Nigeria for a four year period. The study employed ANOVA for data analysis, and finding reveals positive correlation between sustainability reporting index and Profit after Tax (PAT), as well as shareholders fund. This outcome might be as a result of the use of a integrated sustainability reporting approach, and shortness of the four years period of study, during which bank customers' awareness as to the effect of their activities on environmental and social factors was very low hence, does not affect the banks' business as customers' decision to transact with the banks were not taken on such basis.

In another related study, Tri and Yuni (2018) considered the relationship between sustainability reporting (i.e. economic, environmental and social reporting) and firm performance (ROA and Tobin's Q) in the Indonesian mining, metal and food processing industries. Analyzing four years data collected based on the GRI-G4 disclosure items using regression. The study found significant relationship between economic and social reporting, and ROA and Tobin's Q, while environmental reporting presents non-significant relationship with the both return on assets (ROA) and Tobin's Q.

Emeka-Nwokeji and Osisioma, (2019) investigated the impact of both aggregated sustainability disclosure and it's disaggregate dimensions of environment disclosure, social disclosure and governance disclosure on market value of firms (Tobin's Q) of 93 listed firms in the non-financial sector in Nigeria. The study employed content analysis to collect secondary data from the sampled firms' annual reports for ten years period. Using pooled ordinary least squares regression for data analysis, the study found that aggregated sustainability disclosures have significant positive effects on Tobin's Q, while the disaggregate results revealed that both environmental sustainability and governance disclosures have significant positive effect on Tobin's Q, while social sustainability disclosure exhibits negative and non-significant impact on Tobin's Q.

Nzekwe, et al., (2021), determined the impact of sustainability reporting (i.e. environmental, social and economic reporting) on financial performance, i.e. cash value added of industrial goods companies in Nigeria, adopting the ex-post facto research design. The study analyzed twelve years secondary data sourced from fact books and companies' annual reports. The study documented

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significant positive relationship between the three proxies for sustainability reporting (environmental, social and economic reporting) and cash value added at 5% significant level.

Also, Ighosewe (2021) adopted the ex-post facto research design to study the effect of sustainability disclosure, proxy by social responsibility disclosure, employee disclosure, firm size, environment disclosure, and research and development disclosure, on performance (Tobin's Q) of listed companies in the Nigerian industrial and consumer goods sector. The study analyzed ten years data derived through content analysis from sampled companies' financial statement and reports. The study found that social responsibility disclosure, employee disclosure, firm size and environmental disclosure reduces Tobin's Q, implying significant positive relationship with Tobin's Q, while research and development was significantly negative in relation to Tobin Q.

Erhirhie and Ekwueme, (2019) considered a more environmental sensitive sector (Nigeria oil and gas) to determine the relationship between sustainability reporting and financial performance, employing ROA, ROE, and ROCE as independent variable. Studying a sample of ten oil and gas companies using ten years secondary data collected via financial ratios and accounts of the individual companies, and content analysis, the study found that social sustainability reporting exhibit negative relationship with all three performance proxies, with the effect on only ROE being statistically significant.

Amrie, et al. (2021) looked at the relationship between environmental, social, economic, and governance disclosures and firm value (Tobin's Q) of companies in the Indonesian chemical, plastic, and packaging sub-sector. The study analyzed four years quantitative data using multiple regression, and documented that environmental disclosure positively affects firm value, while, economic, social and governance disclosures do not affect firm value (Tobin's Q).

Wilson and Thank God (2021), disintegrated Nigerian banks' governance disclosure into board of directors, risk framework, and whistleblowing disclosure dimensions to determine its impact on their financial performance using data from content analysis of a disclosure checklists developed on the basis of Nigeria Code of Corporate Governance for Public Companies 2011, and the Code of Corporate Governance for Banks and Discount Houses 2014. Results revealed positive and significant impact of board's disclosure and whistleblowing disclosure on the banks' financial performance, while the association between risk management disclosure and the banks' financial performance was not significant, suggesting a no relationship between the variables.

In the same light, Nobanee and Ellili, (2021) studied the effect of corporate governance disclosure on banks' performance in the UAE, sampling 16 banks, made up of 12 conventional and 4 Islamic banks. Using content analysis, the study collected Eight years data from the annual reports of listed UAE's conventional and Islamic banks. The study employed the two-step generalized method of moments for analysis. Results indicate that voluntary governance disclosure has a non-significant association with the bank performance for both conventional and Islamic banks.

Abiodun, (2022) examined the relationship between sustainability disclosures and firms' financial performance of companies using the GRI G4 as reporting bases in Africa . The study used content analysis, based on the GRI Guidelines (GRI G4), to measure sustainability disclosure, disintegrated into economic, environmental, and social disclosures, and while financial performance was measured based on the proxy, return on assets (ROA) and return on equity (ROE). A total of 32 firms were studied after excluding companies whose data were incomplete for the review period spanning 2013 to 2017 across ten African countries. Using multiple regression analysis, the study

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document positive and significant relationship between the three measures of sustainability disclosures and both ROA and ROE.

Dissanayake, et al. (2019) analyzed the impact of sustainability reporting on firm growth of listed manufacturing firms in the Colombo Stock Exchange during the period 2014 to 2017. Data regarding sustainable reporting were based on the Global Reporting Index (GRI) framework performance indicators, while that of firm growth were collected based on three proxy of operational performance (i.e. sales growth), cost of capital, measured as the weighted average cost of capital, and increased market value prospect, measured price-to-book ratio. The study found significant relationship between sustainability reporting and the predictor variables, sales growth, cost of capital and price-to-book ratio.

In a related study, Mihai, et al. (2019) determined the impact of sustainability reporting on firms' growth, adopting environmental, economic and social responsibility measures as proxy for sustainability reporting, while price-to-book ratio, sales growth and cost of capital were used as proxy for firm growth. The study analyzed six years data sourced from published reports of listed companies in Romania with the exclusion of financial brokerage firms. The results indicate that the influence of sustainable reporting on firm's growth indicators is generally low considering that such influence are statistically non-significant among the variables.

Considering the inconsistency in the findings of the studies reviewed above, though adopting performance measures that tended towards internal stakeholders' (stockholders) interest, this study adopts a performance measure (firm growth), believed to have capacity to expand business' market participation, thus creating opportunities that could serve external stakeholders' interest as well. Also, the study considers a sector that has not been studied in terms of the effect of its sustainability reporting practice despite the enormous impact of the sector's activities on people and the environment at large.

Theoretical Framework

Many extant corporate reporting literature have almost mainstream the four social and political theories (Agency, Legitimacy, stakeholder, and signaling) believed to offer better insights and satisfactory explanations of disclosure practices than economic-based models (Wilson and Thank God, 2021). In this connection, this study adopts two of the theories (Legitimacy, and stakeholder) to underpin the association between the three corporate sustainability reporting (environmental, economic, and social reporting) with firm growth in line with Nzekwe, et al. (2021); Wilson and Thank God (2021). In relating environmental reporting to firm growth, legitimacy theory is choosing to anchor the association. Championed by Davis (1973), legitimacy theory contends that the operations of organizations should be conducted within societal bounds and norms (Abiodun, 2022). The theory suggests that for an organization to be seen as conducting legitimate business, such an organization has to be environmentally responsible among other responsible practices to enhance its acceptance in the community where it operate. Reporting on environmental actions of companies would legitimize their operations and stem any negative reactions from the society hence, create certain growth opportunities for the companies through enhanced customers' loyalty.

Further, the study underpins both social and economic reporting relationship with firm growth on the stakeholder theory. Propounded by Freeman, (1984), the theory considers stakeholders as any group or individual whose corporate achievements can affect, or who can equally affect the

achievement of such company's purpose (Lorraine & Joseph, 2008). In this wise, Wilson and Thank God (2021) highlight that the stakeholder theory is anchored on the notion that firms existence should be at the pleasure of society, hence their activities should also consider the concerns of their many stakeholders. Since corporate stakeholders are considered as a group of persons, shareholders, customers, creditors, employees and communities, needed by corporate organizations to survive (Dunham, et al., 2006 as cited in Bidhan, et al.. 2010), and which captures the focus of social and economic reporting attributes as per the Nigerian Stock Exchange (NSE) sustainability reporting framework, (work place diversity, labor practices, occupational health and safety, and supplier relations and management, responsible product and services, as well as the impact of the products and services on the stakeholders), Van der Laa (as cited in Nguyen, et al., 2022) maintains that companies have to be concerned about the benefits of stakeholders and take into account their views and activities so as to maintain growth. In view of this, companies' social and economic reporting provides evidence of their concern for stakeholders' interest. This could spur stakeholders' patronage by way of displaying loyalty at the levels of their stake in the companies which could enhance their growth opportunities.

Methodology

Research Design and Population

The study adopted the correlational research design in order to determine the association between the different dimension of corporate sustainability reporting, (i.e. environmental, economic, and social reporting) and firm growth (i.e. Sales Growth) of listed natural resources companies in Nigeria. Secondary panel data were generated from the sampled firms' annual report for a nine year period (2013 to 2021). The data collected were analyzed through a non-parametric method, specifically Quantile Regression (QR) in line with certain studies in the field of accounting, Wuchun, et al. (2015), Nanda and Panda (2019), Hoang, et al. (2019), Feng and Huang, (2020), Quantile regression is used in analyzing the study's data because the data were observed not to meet certain linear regression assumptions. According to Hoang, et al. (2019), quantile regression is more appropriate for analysis of regression models with the presence of variance or where the distribution function of dependent variables is asymmetric around the mean value.

The study's population is made up of the four listed natural resources companies in Nigeria as at 31st December, 2021. Due to lack of complete data about one of the four companies, specifically Aluminum Extrusion Company of Nigeria, three out of the four companies were sampled and studied.

Definition and Measurement of Variables

Dependent Variable

Shepherd and Wiklund (2009) reviewed 82 firm growth studies conducted across the globe, and reported that 74.5% of the studies used sales growth as proxy for firm growth, suggesting it to be the better and most acceptable measure. Based on the foregoing, sales growth is adopted to proxy firm growth. Sales growth (SG) is define as change in sales revenue over time, and computed as the sales revenue for a given year less prior year's sales revenue divide by the prior year's sales revenue, in line with Manal, et al. (2020) and Serap (2014).

Independent Variable

The independent variable, i.e. sustainability reporting is proxy by the three dimensions of corporate sustainability reporting practice of environmental sustainability reporting (EnvSR), economic sustainability reporting (EcoSR), and Social sustainability reporting (SocSR). The study

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measures each of the proxies by means of indexing, where binary score (0, 1) is used in scoring items of disclosure related to the proxies as contain in the companies' annual report. The score 1 is given for the presence a of disclosure item, whereas 0 is for the absence of a disclosure item in the annual report after which the total score obtained for each proxy is divided by the overall score of items under the proxy as per the GRI reporting guidelines, to obtain the index score for each year under review, in line with Nzekwe, et al. (2021); Tri and Yuni (2018); Abiodun (2022).

Control Variable

The study also employs a control variable, i.e. firm size (FS), defined as the log of total value of firms' assets, in order to contain its possible effect on the result of the study that might stem from the difference in the sizes of the companies under review. According to Saunders et al. (2012), analyzing relationship between certain variables require the consideration of certain control variables, the failure of which could lead to bias in the outcome of the study.

Model Specification

The study employs the multiple regression model, specified as below, to test the earlier stated hypotheses:

FG = f{Sales growth – (SG) ……..……1

$$Q_{\tau}(\mathrm{SG_{it}}) = \beta_0(\tau) + \beta_1(\tau)\mathrm{EnvSR_{it}} + \beta_2(\tau)\mathrm{EcoSR_{it}} + \beta_3(\tau)\mathrm{SocSR_{it}} + \beta_4(\tau)\mathrm{FS_{it}} + \mathrm{e_{it}} \ldots\ldots 2$$

Where:

$\mathrm{SG_{it}}$ = Sales growth

$\mathrm{EnvSR_{it}}$ = Environmental sustainability reporting

$\mathrm{EcoSR_{it}}$ = Social sustainability reporting

$\mathrm{SocSR_{it}}$ = Governance sustainability reporting

α_0 = Constant

FS = Firm size

τ = chosen quantile (25%, 50% and 75%)

$\mathrm{e_{it}}$ = error term

Presentation and Discussion of Result

This section presents results and discussion of findings from the study's analysis. The section presents and discusses results of descriptive statistics of the study's variables, the correlation matrix, collinearity diagnostic, and summary of regression results; it also discusses the implication of the study's finding.

Because the research's domain is made up of four firms out of which only three were studied, it renders the study's sample small hence; the need to determine the distribution of residuals of the data to guide the choice of an appropriate statistical method of analysis. Consequently, the Shapiro-Wilk test for normality was conducted on the residuals, showing significant departure of the distribution of the residuals from normality, ($W = 0.51892$, $P < 0.01$).

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Descriptive Statistics

Table 1 Descriptive Statistics of the Variables

Variables	*Obs*	*Min*	*Max*	*Mean*	*SD*
SG	27	-0.96	10.9	0.4828926	2.23136
EnvSR	27	0	0.17	0.107037	0.0478632
EcoSR	27	0.07	0.21	0.14	0.0582435
SocSR	27	0.08	0 .42	0.3740741	0.0732886
logFS	27	19.8	22.4	21.47778	1.045994

Source: STATA 13 Output

Table 1 presents the descriptive statistics of the variables, with the dependent variable SG having a mean value of 0.4828926, and standard deviation value of 2.23136, while the minimum value and maximum value of the variable stood at -0.96 and 10.9, respectively, indicating that the study's data is non-normally distributed since the standard deviation appears higher than the mean value. Also, the table shows that EnvSR has a mean value of 0.107037, and standard deviation value of 0.0478632. The variable's minimum value is 0, while its maximum value stood at 0.17; EcoSR has a mean value of 0.14. Its standard deviation is 0.0582435, while the minimum value is 0.07 and maximum value is 0.21. The statistic also revealed a mean value of 0.3740741, with a standard deviation value of 0.0732886. The variable's minimum value is 0.08, and maximum value is 0.42. The comparison between the means and standard deviations of the data indicates that the data is not dispersed from the mean since the standard deviations are less than the mean.

Correlation Matrix

Table 2 Correlation Matrix

Variables	*SG*	*EnvSR*	*EcoSR*	*SocSR*	*logFS*
SG	1.0000				
EnvSR	-0.2092	1.0000			
EcoSR	0.0805	0.7823	1.0000		
SocSR	-0.2957	0.6658	0.5109	1.0000	
LogFS	0.0964	0.3705	0.1679	-0.2552	1.0000

Source: STATA 13 Outputs

Table 2 above shows the correlation between the predictor variables, EnvSR, EcoSR, and SocSR and SG. The outcome of the correlation reveals a non-significant relationship between the three predictor variables and SG at the 5% level of significance, with both EnvSR and SocSR being negatively correlated with SG, with coefficient of (-0.2092) and (-0.2957) respectively, while EcoSR is positively correlated (0.0805).

Multicollinearity Diagnostic

Table 3 Variance Inflation Factor (VIF)

Variable	*Tolerance*	*VIF*
EnvSR	0.131375	7.61
SocSR	0.247162	4.05

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EcoSR	**0.346134**	**2.89**	
LogFS	**0.366238**	**2.73**	
Mean VIF			4.32

Source: STATA 13 Output

Table 3 above presents result of the study's test of multicollinearity via the Variance Inflation Factor (VIF). The outcome as per the table, shows non-existence of perfect multicollinearity among the variables, as tolerance and Variance Inflation Factor (VIF) values of the independent variables are all less than 1, and also less than 10 respectively, signifying that the study's independent variables are all within the normal range based on the rule of thumb of tolerance <1, and VIF <10 in line with Hair et al. (1995).

Quantile Regression Result

Table 4 Summary of Quantile regression Result

SG	***Q25%***	***Q50%***	***Q75%***
Constant	**7.113692 (0.018)**	**4.263381 (0.799)**	**6.508201 (0.717)**
EnvSR	**-2.675473 (0.526)**	**-13.63285 (0.586)**	**-11.47354 (0.667)**
EcoSR	**14.51834 (0.000)**	**17.4472 (0.176)**	**13.89456 (0.309)**
SocSR	**-11.95871 (0.000)**	**-6.792271 (0.569)**	**-6.91799 (0.587)**
LogFS	**-0.2130434 (0.075)**	**-0.1217391 (0.859)**	**-0.2 (0.784)**
No of observation	**27**	**27**	**27**
Pseudo R^2	**0.3180**	**0.2538**	**0.2769**

Source: STATA 13 Outputs

The outcome of the study's quantile regression as displayed in table 4 at three different quantiles of 25%, 50% and 75% indicates that 31.8% of the variation in the dependent variable (SG) is explained by the model at 25% quantile, while 25.4% and 27.7% of the variation in SG is explained by the model at higher quantiles of 50% and 75%, respectively. This indicates that at the lower quantile where the companies' activities are negligible, their sustainability commitment is commensurable with their low level of operations hence; it proves impactful on their performance. In this connection, the study reports the quantile regression result of the 25% quantile.

Regarding individual predictor variables, the result shows that environmental sustainability reporting (EnvSR) with a coefficients of -2.68 and significant value of 0.526, has a negative non-significant impact on the companies' sale growth. This result implies that the reporting of an element of the companies' environmental activity would lead to a fall in sales to the tune of N2.68. Explanation to this outcome is that such report tends to trigger anger in the communities and lead to loss of trust over time as a result of the companies' negligible commitment to correcting the effect of their activities on the environment, considered as not meeting the expectation of their host communities. This has continued to cause crisis between the companies' and the communities leading to intermittent break in operations, and hence drop in sales. Based on the probability value of the coefficient (0.526) being higher than the study's chosen level of significance (5%), the study failed to reject hypothesis HO_1 which state that EnvSR has no significant impact on sales growth of listed Natural resources companies in Nigeria.

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Further, the result also show that economic sustainability reporting (EcoSR), with a coefficients of 14.51834 and significant value of 0.000 has a statistically significant impact on the companies' sales growth. The result implies that an element of social sustainability activity reported by the companies increases their sales by up to N14.51. The result leads to the study's rejection of the null hypothesis (HO_2) that EcoSR has no significant impact on sales growth of listed Natural resources companies in Nigeria. The result aligns with priory expectation and also corroborates the outcome of previous related studies, Nzekwe, et. al., (2021), Tri and Yuni (2018) who also document significant relationship between economic reporting, and certain measure of performance (Cash value added, ROA, Tobin's Q), and contradict the findings of Emeka-Nwokeji and Osisioma, (2019), Ighosewe (2021), while validating the stakeholders' theory.

The quantile regression result also shows that social sustainability reporting (SocSR) with a coefficients of -11.95871, and significant value of 0.000 has a statistically significant, but negative impact on sales growth, signifying an inverse relationship based on which the related null hypothesis (HO_3) that SocSR has no significant impact on sales growth is rejected. The result implies that an element of social activity reported by the companies could lead to a fall in sales to the tune of about N11.95. This could largely be as a result of stakeholders' lack of understanding of the companies' social sustainability report which does not necessarily communicate the companies' future plans on how other stakeholders would benefit, from the perspective of opportunities, since such report reveals the companies employment policies which in most cases do not consider other category of stakeholders.

Conclusion and Recommendations

The result of the study's analysis discussed above lead to the conclusion that environmental sustainability reporting practice of listed natural resources companies in Nigeria does not lead to the companies' growth. This has the tendency of affecting the companies' expansion policy that could create future opportunities for their stakeholders.

In addition, it is also concluded that the companies' economic sustainability reporting practices have the capacity to enhance sales growth. Because these activities centers on their products quality and supplier relation, the companies tend to consider it more in their report. Such could enhance their relationship with stakeholders, which in turn would improve their competitiveness.

Lastly, the study also conclude that social sustainability reporting inversely relate with the companies' sales growth, as increasing elements of social sustainability practice in the companies' report could lead to a drop in their sales owing to its perceived unbeneficial contents by stakeholders since it only provide information as to the category of employees in the companies, which could be offensive to certain stakeholders who might feel discriminated by the companies' social policy hence; deliberately boycott and advocate against the companies' products and services among their peers.

Based on the conclusion above, the study recommends that:

The management of companies in the Nigerian natural resources sector should not only improve their commitment to addressing environmental issues relating to their operation but also engage in the education of stakeholder so as to enhance their understanding of their environmental report since such report is expected to inform the public and not misinform them about their

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environmental effort. This would improve the quality of their financial reports, and drive their market value.

The companies should engage and synergize with sustainability experts to find a way of improving on their economic sustainability report to enable them derive the maximum benefits such report offers in term of profit enhancement, etc. This could be achieved through regular consultation and trainings on how to develop and advance such report for improved benefits.

The companies should improve their social sustainability report by way of incorporating the companies' future social plans for their host communities and the generality of stakeholders into the report. And to also engage in public's education, through awareness campaigns, about their social sustainability practice in order to disabuse their minds from perceiving them as being discriminatory in their social policy. This would enhance the relevance of their social reporting towards meeting their stakeholders' information needs.

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