

Corporate Social Responsibility and Financial Performance of Listed Oil and Gas Companies in Nigeria

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ABSTRACT

The entire well-being and earnings from operations comprises a company's financial performance. It entails effective resource allocation and use to fulfill objectives, resulting in increased profitability. Literature has shown that listed Oil and Gas companies in Nigeria has been recording fluctuations in their financial performance which has affected achieving the objective of the shareholders and also the object of firm maximization. Studies have also shown that not many companies in the oil and gas sector have integrated Corporate Social Responsibility (CSR) in their operations. This study estimated the effect of CSR on the financial performance of the listed oil and gas companies in Nigeria from 2011 to 2022. This study filled the gap by identifying the financial benefits a company derived from CSR with the objective which investigated the relationship between them. The 11 oil and gas companies with primary listings on the Nigerian Exchange Group (NGX) form the population for the analysis. Secondary data from the publicly available annual reports of the Nigerian Exchange Group (NGX) was utilized for this study. The study utilized panel regression analysis, and the Hausman test for specification was performed. The results revealed that health and safety initiatives had a significant beneficial impact on the financial performance of Nigeria's listed oil and gas companies {Adj R²=, F(df)=, p= 0.0000} According to the findings of -1.8643589 of EVE regression study, investments in CSR have a small, negative effect on the financial performance of publicly listed oil and gas companies in Nigeria. The prob. Value of 0.0018623, 0.0000000 and 0.5975882 indicated that both employee expenditures and health and safety significantly affected the financial performance of oil and gas companies in Nigeria. The research concluded that corporate social responsibility (CSR) had a significant impact on the financial performance of oil and gas companies listed on Nigerian Exchange Group (NGX) and thus listed oil and gas companies in Nigeria would benefit financially from increased social responsibility measures if they are well implemented [In stating for the hypotheses, you will give the following statistics results: Adj R², F statistics with the degree of freedom (df), and p-value as stated above]

The study Concluded that CSR has influence on financial performance of listed oil and gas companies in Nigeria. The study recommended that Nigeria should include corporate responsibility in their policy statements and back it up with a well-organized budget in order to enhance their financial performance.

Keywords: Corporate social responsibility, financial performance, and return on assets

INTRODUCTION

Corporate financial performance is a crucial aspect of financial risk management and measuring a company's financial well-being over time. It can be used to compare a company within an industry or across industries (Didin, et al., 2022). According to Yousaf and Dey (2022) Financial Performance (FP) is a measure of a company's efficiency in converting its financial and other resources into sales (income). It provides insight into how the business is doing financially at any given moment and serves as a barometer of management's performance. The use of FP monitoring may provide managers with confidence in both

their immediate and long-term choices. A sign of a thriving and expanding firm is the ability to gain a financial edge over rivals who may perform less well financially.

Corporate social responsibility (CSR) refers to taking into account the needs of a company's stakeholders on an economic, social, and environmental level. Companies require CSR to improve society as a whole if they are to thrive. CSR programmes can lead to improved financial performance, customer loyalty, environmental progress, consumer and civil society challenges, and corporate goals. Since 1989, CSR and FP have been essential for stakeholders, compelling businesses to prioritize revenue-generating activities while attending to societal and consumer demands and enacting sustainable practices (Gallardo-Vázquez, Valdez-Juárez and Castuera-Díaz, 2019).

Latapí-Agudelo, et al. (2019) opined that political, economic, and corporate discourse has shifted to focus on environmental challenges due to the damage they inflict on ecosystem stability. Businesses are advised to accept responsibility for their actions to mitigate negative impacts on society and the environment. CSR asserts that organizations must balance the needs of their stakeholders (including customers, employees, stockholders, and locals) with those of the environment. The unregulated effects of manufacturing operations on the environment have made climate change, ozone layer depletion, resource overuse, air pollution, and an increase in radioactive substance water pollution worse (Hilmi, et al. 2020).

Organizations are increasingly perceived as having responsibilities to stakeholders in addition to their direct owners, such as shareholders and debt holders. CSR is not an expedient response to momentary social pressures but rather a manifestation of deep-rooted social changes in society (Sameer, 2021). Modern business leaders stress the need for companies to do more than just sell goods and services to the public (Wirba, 2023). Despite the many benefits and contributions associated with CSR in developed countries, few companies in Nigeria have taken advantage of the opportunity to implement CSR Kalagbor, Idowu and Mulat-Weldmeskel (2022). This is one of the reasons that led to this study.

The rise in popularity of CSR has also brought forth new challenges, such as ethical lapses, financial dishonesty, commitment concerns, gender complexities, debates, and protests which has affected companies' financial performance in the corporate world particularly in Nigeria (Wirba, 2023). According to Ayoo (2022), there are assertions made by certain individuals who see it as wasteful and argue that it leads organizations to allocate resources into projects without a distinct financial purpose.

The researcher is interested in this topic also because it has been noted in numerous literatures that CSR has affected the financial performance of many companies in Nigeria, and the researcher believes that a deeper understanding of this phenomenon could lead to a boost in financial performance for a subset of Nigeria's oil and gas companies. Recent social events have shown that businesses should not follow the trend of not treating social responsibility as a priority because of their focus on profits. Reasons why this should not be the case are provided by the study's underlying premise, and the need and significance of business organizations' positive attitudes towards CSR (Ekundayo et al., 2022).

To address the aforementioned gap, the current research endeavour to investigate CSR's effect on the financial performance of selected Nigerian oil and gas companies' financial performance.

The study's main objective was to study Corporate Social Responsibility and Financial Performance of Listed Oil and Gas Companies in Nigeria. However, there are also more focused objectives, including:

1. "To determine how Corporate Social Responsibility (CSR) affects the financial performance of listed companies in Nigeria."
2. "To determine the relationship between Corporate Social Responsibility (CSR) and the financial performance of listed companies in Nigeria."

The following null hypotheses were examined for acceptance or rejection based on the aforementioned research objectives:

1. “ H_0 : Corporate Social Responsibility (CSR) does not have a significant impact on the Financial Performance (FP) of listed oil and gas companies in Nigeria.”
2. “ H_0 : There is no significant relationship between Corporate Social Responsibility (CSR) and the Financial Performance (FP) of listed companies in Nigeria.”

LITERATURE REVIEW

Conceptual Review

Concept of Financial Performance (CFP)

Financial Performance refers to the overall financial health of the business and the effectiveness in which the business generates profits. Its indicators are crucial for assessing a business's health and growth and they are categorized into two broad categories which are accounting-based measurements and other metrics (Choiriyah et al., 2021). These indicators include return on assets (ROA), return on equity (ROE), return on sales (ROS), and profits per share (EPS) (Latifi, Nikou, and Bouwman 2021). Researchers often combine these metrics with other metrics and make mathematical adjustments. The choice of appropriate ratios depends on the characteristics of the items under investigation and the research objectives (Kim et al., 2021).

Return on assets (ROA) is the most popular measure of financial performance, while return on equity (ROE) shows how well a firm manages its equity. Both ratios provide insights into a company's financial performance, allowing scholars to gain more accurate insights. Mara and Nicoleta (2019). This study has decided to use return on assets (ROA) as the only parameter for measuring the financial performance of the listed oil and gas the reason being that it shows how profitable a company is in relation to total assets and since financial performance is a dependents variable in this study, it is best measured with ROA.

Several scholars in the field of management have put forward several definitions of financial performance, influenced by their own viewpoints, which may be categorized as either financial or operational in nature. The financial success of a company is seen as the result of its ability to raise, allocate, and oversee money (Dinh and Pham, 2020). The term refers to a collection of tools used for evaluating the comprehensive financial position of a corporation across a certain period. The comparative analysis of these instruments may be conducted inside firms operating in the same industry or across collection of oil and gas companies in Nigeria (Anozie et al., 2023). The assessment of a company's financial success is a multifaceted concept that may be evaluated via several methodologies. According to Dinh and Pahn (2020), the assessment of financial performance may be conducted via the use of accounting methodologies such as Return on Assets (R.O.A) and Return on Equity (R.O.E), as well as economic models like Mari's coefficient and Tobin's Q. However, as previously mentioned, the metric of return on assets is used in this research to assess the financial performance of oil and gas companies in Nigeria. Return on assets measures a company's financial performance in proportion to its total assets. In order to ascertain this, the net income is divided by the total value of the assets. A large percentage suggests that the firm has a notable level of proficiency in converting its assets towards revenue as well as vice versa.

Corporate Social Responsibility (CSR)

Corporate social responsibility (CSR) is a complex concept that encompasses various aspects such as corporate conscience, exemplary corporate citizenship, company obligations, social accountability, environmentally conscious firms, community interactions, and responsible business practices (Chen, 2021).

It focuses on how a firm engages with its stakeholders ethically and socially, contributing to the overall advancement of human development for all stakeholders.

The World Commission on Development and the Environment introduced the idea of sustainable development in 1987, and its definition is “fulfilling current human needs while ensuring that future generations do not hinder their own needs.”

Hilmi, et al. (2020) identified three fundamental components of CSR: people, profit, and the environment. These components are often used in contemporary CSR strategies, including planning, implementation, and assessment (reporting). The triple bottom line framework, which includes people, profit, and the planet, serves as the foundational elements of CSR, operating synergistically.

A comprehensive literature review by Riano and Yakovleva (2019) identified five categories and features associated with CSR definitions: social, economic, environmental, voluntarily performed, and stakeholder concern. The triple bottom line framework is often used in the formulation of CSR endeavors, highlighting the importance of promoting the welfare of society and ensuring that profits serve the overall interests of the firm and facilitate economic progress for all stakeholders involved.

In the contemporary economic landscape, it has become imperative for firms to embrace and fulfil their corporate social responsibility (CSR) in order to enhance their competitive edge. Therefore, the disclosure of corporate social responsibility (CSR) is increasingly becoming a crucial aspect (Chen, 2021). A theoretical framework exists for the purpose of elucidating and comprehending the diversity seen in corporate governance. This framework involves the identification of the social relationships that corporations’ priorities, as well as the distribution of rights and obligations among the many stakeholders involved (Mrabure and Abhulimhen-Iyoha, 2020).

Corporate social responsibility (CSR) has several indicators and measurements including economic duty, legal obligation, ethical responsibility, charitable responsibility among others. The corporate social responsibility pyramid model is a comprehensive framework for understanding the many duties that a corporation has towards society. This study identifies four key dimensions of corporate social responsibility: economic, legal, ethical, and philanthropic responsibilities. These dimensions together include the entire social duty of a firm (Kang and Chiu, 2016).

Corporate social responsibility (CSR) may arise as a reaction to the personal desires of leaders for attention and the reinforcement of their image (Kunz, 2020), and it may have an impact on the financial success of organizations (Ramchander, et al. 2012). Organizations see labour as a crucial element in promoting corporate social responsibility (CSR), and the role of labour as a stakeholder is a subject of considerable concern. The case study of listed oil and gas companies highlight that the CSR indicator prioritized environmental and financial sustainability while giving relatively less significance to workplace management aspects and associated employee relations techniques Gyane, A. T., Nunoo, E. K. uleman, S. and Essandoh-Yeddu, J. (2021). However, given the current economic climate characterized by significant levels of unemployment, this issue seems to be troublesome.

The above proposition has made this study to stick to the use of environmental expenditure, health and safety, and employee relation expenditure as the measures of corporate social responsibility the independent variable for the study. The reason being that out of the aforementioned parameters used in measuring, environmental expenditure, health and safety, and employee relation expenditure are some of the strategies used in retaining the employees and it is also an indicator that when employees are retained, the companies are well represented in the society and also provision of the employee expenditures and health and safety is a social responsibility for it serve as a succor to the damage that the oil and gas companies must have caused to its social environment and it’s also a benefit to the social environment and the companies are also well

represented to the public in terms of social responsibilities which also improve the companies' financial performance (Paul, 2021).

Theoretical Review

Academics like Freeman, Orlitzky, Schmidt, and Rynes, as well as Bale, Scholtens, and Ojo, have proposed two main approaches to corporate social responsibility: shareholder and stakeholder methods. These approaches emphasize the importance of firms' social responsibility in boosting financial performance and balancing stakeholder interests while also ensuring shareholder accountability and achieving company objectives. Various theoretical models can be used to address CSR issues; however, this study is streamlined to the Stakeholder and Agency Theory.

Stakeholder Theory

Stakeholder theory, popularized by Edward Freeman in the 1980s, posits that any group or individual can influence or be affected by an organization's objectives. It emphasizes the importance of corporate social responsibility (CSR) and long-term viability and suggests that profits should not be the sole metric for evaluating a company's financial performance. The theory also rejects individual and corporate egoism as a guiding principle, emphasizing morality and ethical behaviour based on consideration for others.

There are two main categories of stakeholders namely primary stakeholders, who have a formal contractual relationship with the company, and secondary stakeholders, who are unaffiliated outsiders who might suffer from the company's decisions. Milton Friedman's "shareholder theory" proposed that corporations have only one true set of stakeholders: shareholders. However, stakeholder theory argues that organizations have several stakeholders, with shareholders being the central focus.

Dandonson and Preston (1995) argued that the normative component of stakeholder theory is the most important portion of the theory, outlining the responsibilities of businesses to their various constituencies. Jones and Wicks (1999) disagree, arguing that the distinctions between the various components of stakeholder theory are not as clear and categorical as they may seem. Freeman (1999) disagrees with the assumption of a clear division between the three types of stakeholder theory, stating that all three lines of inquiry are essentially the same, involve creating a story, and share common ground.

A good stakeholder theory should focus on improving storytelling, encouraging employees to work together, and adding value to the company as a whole. All three components are necessary for creating engaging narratives, and a good theory should help managers produce value for stakeholders and enhance their quality of life.

Agency Theory

Agency theory, developed in the late 1970s by economists and institutional theorists who were Stephen Ross and Barry Mitnick, is based on two main tenets: people are egocentric and often prioritize their own interests above others. It has been used in various fields such as accounting, economics, finance, marketing, politics, organizational behaviour, and sociology. However, questions continue to be raised about agency theory, with some critics calling it "dangerous" for its perceived lack of seriousness and lack of empathy.

Brudney (1985) supports agency theory is crucial, as it has been criticized for being hardly subject to empirical testing since it rarely tries to explain actual events. The possibility of worker exploitation was not addressed in the theory, making it unrealistically one-sided. The last inquiry is, "In what ways and settings might agency theory be most useful to organizational researchers?" Understanding the contexts where the agency paradigm may give theoretical power is crucial for determining the applicability of agency theory to organizational academics.

Kosnik (1987) supports Agency theory as it proves to be an advantageous expansion of the field of organizational studies, with concepts on risk, outcome unpredictability, incentives, and information systems supported by empirical data, especially when paired with complementary theoretical approaches. However, it is biased because it only considers economic aspects while disregarding other important ones, such as political ones, internal government issues, and the involvement of other stakeholders.

Professor Victor Brudney (1985) points out the shortcomings of agency theory in understanding corporate governance systems, arguing against the concept that private negotiation or contract properly restrains managerial misbehavior. He shifts the focus to the role of institutions, arguing that dispersed stockholders lack the requisite information and institutional mechanisms to bargain over management's employment terms or monitor and control management's activities.

Empirical Review

Numerous studies have examined the relationship between CSR and FP. Considerably positive, considerably negative, not significantly positive, and not significantly negative are the four main takeaways. These results are presented and evaluated in the context of empirical studies of CSR and FP.

Using data from 79 businesses listed on the National Stock Exchange between 2008 and 2015,

Maqbool et al. (2020) discovered a positive and substantial correlation between CSR and FP. According to Fourati and Dammak (2021), CSR has a favourable and substantial effect on CFP. Between 2008 and 2017, Ramzan et al. (2021) investigated how CSR affected the financial performance of 20 Pakistani companies. It was looked into by Okafor et al. (2021) to see whether CSR efforts made by IT firms may lead to better financial performance in the United States.

Lin et al. (2019) used both prospective and retrospective methods to foresee the cyclical relationships between CSR and CFP. According to research conducted by Sekhon and Kathuria (2020), CSR has a significant, unfavourable influence on the financial success of enterprises in India. While Zhou et al. (2021) found that CSR would have a significantly unfavourable influence on the financial performance of banks in China between 2008 and 2022, they also found that this association eventually proved to be positive.

According to Shabbir et al. (2020), CSR has been associated with companies' performance in both the financial and non-financial industries of Pakistan. From 2008 to 2022, Szegedi et al. (2020) analyzed the relationship between corporate social responsibility (CSR) and financial performance in Pakistan and found that CSR improvement was correlated with financial growth. According to research conducted by Barauskaite and Streimikiene (2020), a company's financial success is positively correlated with its dedication to social responsibility. CSR has a favourable influence on financial performance, according to a study on the topic done by Long et al. in China in 2019.

Siueia et al. (2019) found that there is a significant relationship between CSR and FFP in Mozambique as well as South Africa. Both Nirino et al. (2019) and Akben-Selcuk (2019) looked at the relationship between CSR and a company's bottom line, and both concluded that it had a positive and material effect. Al-Malkawi and Javaid (2022) discovered a robust positive link between CFP and CSR, whereas Garcia-Sanchez and Martinez-Ferrero (2022) discovered that CSR investments increase FFP. Using information from Indonesian enterprises in 2014, Mahrani and Soewarno (2022) came to a similar conclusion about the favourable impact of CSR on financial performance.

Literatures Gap

This section provides a comprehensive overview of the ideas and empirical research conducted in the field

of corporate social responsibility (CSR) in connection to the financial performance of some listed oil and gas in Nigeria. Additionally, the study explores several empirical reviews used in the study of CSR impact on FP. The literature examined a number of studies, including Maqbool et al. (2020), Lin et al. (2019), Shabbir et al. (2020), and Mahrani and Soewarno (2022), which provided support for the use of financial performance proxies and the sampling of data across various sectors.

However, the existing literature on the relationship between corporate social responsibility and financial performance of the listed oil and gas in Nigeria failed to capture some parameters used in capturing the social corporate responsibility such as Employee Expenditure (EE), Health and Safety (ES), and Employee Relation Expenditure (EVE) in the oil and gas sector. This is the gap that the study intends to cover.

METHODOLOGY

The study used a post-facto research design, which includes the use of secondary data and entails examining the link between two or more factors in order to determine if there is an impact or no effect between the variables being studied. The need to ascertain whether or not CSR spending significantly improves the selected companies' financial performance served as justification for adopting the concept.

“The study population include all the identified oil and gas companies in Nigeria that their corporate social responsibility has a significant impact on their financial performance in the Nigerian Exchange Group (NGX) from 2011 to 2022 make up the study's population.”

All the oil and gas companies listed on Nigerian Exchange Group (NGX) make up the study's sample however the selection was limited to those that were continuously listed and from the list of companies accessible on the Nigerian Exchange Group (NGX), eleven (11) companies were selected.

The selected oil and gas companies for this study include Shell, Eni, ExxonMobil, Tullow Oil, BP, Chevron, Petronas, Sinopec, Duril, NNPC and Total Energies SE.

Regression analysis (E-views 10.0 software) was used to assess the panel data used to obtain the data (an audited financial statement).

In order to get the necessary data, this research used the audited annual reports of the sampled companies. That indicates that the content analysis of the available data was the approach employed. Numerous businesses create specialized CSR reports, but unless they are included in the yearly reports, few people will likely read them. Since every registered business generates an annual financial report, which is the most credible source of information, annual reports are the most accessible or common medium for CSR disclosures and for getting information about a firm (Tilt, 1994). The Nigerian Exchange Group (NGX) yearly fact books, yearly financial reports, and specialty CSR reports served as the primary sources of data for this research.

However, the independent variables such as: employee expenditure, health and safety, and employee relation expenditure were quantified with dummies for the purpose of this study and to carry out their analysis, the researcher used these dummies in the next section of the study.

The impact of CSR on FP of selected companies in Nigeria was examined in this research using panel regression and E-view. One dependent variable, ROA, and three independent variables, EE, HS, and EE, which are components of CSR as they were employed in earlier research in the field, make up the variables (Abdulrahman & Muhammed, 2014). The data were subjected to a pre-diagnostic test to see if they were normally distributed, and the Hausman test was also used to distinguish between a random effect and a fixed effect. The interpretation was based on the random impact stated in the Hausman test.

Model Specification and Operationalization of Variables

The study’s operationalization occurs when the connections between variables, or the influence of one variable on another, are written down mathematically. Here is the model for the method:

$$ROA_{it} = f(EE_{it}, HS_{it}, EvE_{it}) \quad \text{-----} \quad (i)$$

Equation (i) can be written in more detail form as follows:

$$ROA_{it} = \beta_0 + \beta_1 EE_{it} + \beta_2 HS_{it} + \beta_3 EVE_{it} + \varepsilon_{it} \quad \text{-----} \quad (ii)$$

Where:

ROA = “The rate of return on assets is calculated by dividing net income by total assets.”

EE = Environmental Expenditure

HS = Health and Safety

EVE = Employee Relation Expenditure

$\beta_1 - \beta_4$ = Slope of the Regression Line

β_0 = Constant

ε = “error term”

i = “cross sectional dimension”

t = “time series dimension”

“Tsoutsoura (2004), Brammer, Brooks, and Pavelin (2006), Brine et al. (2006), Gunu (2008), Uadiale and Fagbemi (2011), Adebayo et al. (2012), Afonso et al. (2012), and Bolanle et al. (2012) were used to inform the model’s variable definitions.”

“RESULTS, ANALYSIS AND DISCUSSION OF FINDINGS”

“Data Presentation”

“Data Analysis and result”

“The following table presents descriptive statistics of the variables used in this study.”

Table 4.1: “Descriptive Statistics”

	ROA	HS	EE	EVE
Mean	2.405115	1.481968	1.625487	0.170491
Median	5.440000	1.600000	1.600000	0.000000
Maximum	41.920000	1.600000	1.600000	1.600000
Minimum	-114.176000	0.000000	0.000000	0.000000

Std. Dev.	19.799220	0.419960	0.426587	0.495715
Skewness	-4.631060	-5.217870	-6.957842	4.080434
Kurtosis	23.514500	18.616320	35.854726	12.006210
Jarque-Bera	1385.270000	952.474400	3772.166000	376.577100
Probability	0.000000	0.000000	0.000000	0.000000
Sum	293.424000	180.800000	187.200000	20.800000
Sum Sq. Dev.	29645.660000	13.337710	7.714589	18.583600
Observations	132	132	132	132

Researcher Computation, 2023 using E-views

Table 4.1 presents the calculated means for the variables Health as well as Safety, Worker Disclosure Dummy, and Environmental Disclosure Dummy, which are 2.405115, 1.481968, and 1.625487, respectively. Additionally, the mean for the variable Environmental Disclosure Dummy is 0.170491. A comparative analysis between the mean answers and the highest values of each variable reveals that the selected oil and gas companies now exhibit a return on assets of 2.405115, safety and health at 1.481968, and employee accountability dummy at 1.625487. The environmental disclosure variable is recorded as 0.170491. All variables in the Jarque-Bera test have probability values below the 5% significance level. This observation suggests that the distribution of all the variables is not normal.

Normality Test

This study uses the analysis of Jarque-Bera test for normality test. The result show that all the variables are normally distributed.

Table 4.2 Correlation Matrix and Multicollinearity Analysis Correlation Matrix

“Covariance Analysis: Ordinary Sample: 2011 – 2022 Included observations: 132”

“Balanced sample (listwise missing value deletion)”

Correlation Probability	ROA	HS	EE	EVE
ROA	1.000000	0.533153	0.143864	0.026510
HS	0.533153	1.000000	0.853880	0.113613
EE	0.143864	0.853880	1.000000	0.083222
EVE	0.026510	0.113613	0.083222	1.000000

Researcher Computation, 2023 using E-views 10

In Table 4.1.2, the association between the study’s dependent as well as independent variables may be calculated using the correlation matrix. Observational correlations are shown in the table above.

Inferential Statistics

Table 4.3: Panel Regression Analysis

H₀: Random effect is appropriate H₁: Fixed effect is appropriate

Based on the result of the Hausman test, this study accepts null the hypotheses which states that

Random effect is appropriate (see appendix II for Hausman Test).

Dependent Variable: ROA Method: Panel EGLS (Cross-section random effects)

Cross-sections included: 11 Total panel (unbalanced) observations: 132

Periods included: 12 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.2948325	5.3489201	-2.3132413	0.0403139
EE	-22.9637409	7.1620519	-3.5124676	0.0018623
HS	37.8731766	5.1483365	8.0588296	0.0000000
EVE	-1.8643589	3.0752423	-0.6641368	0.5975882
Effects Specification			S.D.	Rho
Cross-section random			7.002711	0.4024
Idiosyncratic random			8.533942	0.5976
Weighted Statistics				
R-squared	0.401652	Mean dependent var	0.8222547	
Adjusted R-squared	0.382564	S.D. dependent var	17.7058072	
S.E. of regression	9.818918	Sum squared resid	14550.137	
F-statistic	24.249498	Durbin-Watson stat	2.8481361	
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.302488	Mean dependent var	2.405115	
Sum squared resid	12923.87	Durbin-Watson stat	1.111154	

Researcher Computation, 2023 using E-views 10

$$ROA_{it} = -11.2948325 - 22.9637409EE_{it} + 37.8731766HS_{it} + -1.8643589EVE_{it}$$

The regression outcome is presented in Table 4.3. R² is 40%; therefore, the independent variables may account for that much of the variation in financial performance. With an adjusted R² of 38%, we may conclude that the inclusion of new independent variables would not have a major impact on the bottom line. The 9.818918 standard error of the regression indicates that both the measurement error in the variable that is dependent and the unobserved components in the variables serving as explanatory variables are small. A constant value of 0.10 is shown to be statistically significant, indicating that financial performance improves at a rate of 14% when the explanatory variables are ignored. The F-statistic for the overall effectiveness of the model is 21.04, whereas the probability associated with that value is 0.0000. The 5% threshold used for this study indicates that this value for probability is lower than expected. This result provides more evidence that the aforementioned explanatory variables have a substantial impact on the listed companies' financial performance.

Test of Hypotheses

Environmental Disclosure Dummy and Financial Performance

Dummy Variable for Environmental Disclosure in Financial Performance Analysis. The results of our

analysis of how the Environmental data dummy variable affected the financial performance of the selected oil and gas companies in Nigeria are shown in Table 4.3. According to the results, there seems to be a positive correlation between the degree of financial performance and the number of units in the Environmental transparency dummy variable. Both the t-statistic and the F-statistic have p-values under 5%, indicating the results are statistically significant. It follows that money spent on Environmental has a major unfavorable effect on the FP of the selected oil and gas companies in Nigeria.

The Relationship between Health and Safety as well as Financial Performance

Table 4.3 displays the results showing how the environment's disclosure variable affected the financial performance. According to the results, increasing the worth of the disclosure to the environment dummy variable is inversely related to financial performance. As was previously indicated, the financial performance would decrease by 0.4 percentage points for every dollar in increased expenditure. The t-statistic's p-value is lower than the 5% threshold for statistical significance. This data points to the positive and substantial influence of health and safety of the employees (HS).

Environmental Disclosure Indicator

Results regarding the environment disclosure dummy variable's effect on the financial performance of listed oil and gas in Nigeria are shown in Table 4.3. Based on the results, it seems that there is a weak positive correlation between Environmental disclosure and financial performance at a rate of 0.026510 for every unit increase in the value of the Environmental disclosure dummy variable. The results are also statistically significant, with t- and F-statistic p-values lower than 5%. As a result, we may infer that investments in environmental protection have no more than a negligible effect on bottom-line results.

Here, we'll do a deep dive into the study results and provide our interpretation of them.

According to the findings and analysis shown above, corporate social responsibility (CSR) activities have a significant impact on financial performance, particularly in terms of financial performance. Testing this hypothesis yields evidence of both beneficial and detrimental correlations between CSR and financial performance results. It follows that a reduction in CSR activities focused on protecting the environmental expenditures (EE) would have a negative effect on profits, whereas an increase in CSR initiatives focused on health and safety (HS) would have a positive effect on profits.

According to the data examined in the first hypothesis, Nigerian oil and gas financial performance is inversely proportional to their level of investment in Environmental expenditures (EE). This finding is consistent with studies by Garcia-Sanchez and Martinez-Ferrero (2022) and Shabbir et al. (2020) that hypothesized that variables other than personnel efficiency may boost profits. This result is consistent with agency theory as well.

The favourable effect shown in the larger context of HS suggests that businesses that invest more money in green projects will get a good return on their investment. Research by Okafor et al. (2021), Zhou et al. (2021), Szegedi et al. (2020), Long et al. in China in 2019 and Siueia et al. (2019) all support this finding.

The environmental disclosure dummy variable has a negative impact on financial performance. According to the results, increasing the value of the environmental disclosure dummy variable is inversely related to financial success. As was previously said, the financial performance will drop as the amount spent increases by increments. This indicates that EVE has a major negative effect when put into practice. Ramzan et al. (2021), Al-Malkawi and Javaid (2022) and Mahrani and Soewarno (2022) all discover similar things in their studies; therefore, this result makes sense.

In terms of the overall performance of the model, the coefficient of F has an estimate of 24.249498 with a likelihood ratio of 0.0000. According to these findings, the likelihood value is lower than the 5% threshold set for statistical significance. As a result of this analysis, we may infer that the explanatory variables have a significant bearing on the financial performance.

Table 4.4 Multicollinearity test Variance Inflation Factors

Sample: 1 196 **Included observations: 132**

Variance VIF	Coefficient Variable	Uncentered VIF	Centered VIF
C	23.83691	26.85607	NA
EE	49.32548	55.85472	2.95478
HS	30.98799	32.33735	2.38554
EVE	10.35989	1.24374	1.11121

Researcher Computation, 2023 using E-views 10

Each variable’s VIF and tolerance coefficient are shown in Table 4.4. According to the collinearity test, the VIF was substantially less than 10, and the allowance value was more than 0.2. The data do not support multi-collinearity and independent error in this situation. According to Wasserman and Kutner (1990), multicollinearity is not a concern if the variance inflation factor (VIF) is less than 10 and the tolerance for each variable is more than 0.2.

Table 4.5: Heteroskedasticity Test Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	3.25131	Prob. F (4,45)	0.1028833
Obs*R-squared	11.53961	Prob. Chi-Square (4)	0.0836607
Scaled explained SS	17.19410	Prob. Chi-Square (4)	0.1144895

Researcher Computation, 2023 using E-views 10

As can be seen in Table 4.5, the Breush-Pagan-Godfrey test was applied to the residuals. The null hypothesis of no heteroscedasticity in the residuals was rejected due to the probability that the Chi-square value was greater than 0.05 from the test.

Table 4.6: Serial Correlation Test Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.09681	Prob. F (6,39)	0.18432
Obs*R-squared	12.78555	Prob. Chi-Square (6)	0.13815

Researcher Computation, 2023 using E-views 10

Autocorrelation is not present, according to the LM Test for serial correlations using the brush-Godfrey approach. An R² of 0.18432 is obtained from the supplementary regression test. Given that the P value is more than 5%, it is concluded that the alternative hypothesis, which holds that there’s no serial correlation inside the residual, is false.

Implications of Findings

This study looks at how CSR affects the financial performance of listed oil and gas in Nigeria. This study evaluated the effects of having an oil and gas in Nigeria environment. Concerns the negative and potential negative consequences that businesses have had on the neighborhood are at the root of the community's uneasiness. There were three goals for this study. This research looked at how issues like employee health and how the state of the environment affected the financial performance of Nigerian oil and gas companies.

This study used a descriptive research approach and panel data collected from Nigerian Exchange Group over a 12-year period (2011–2022). The goal was to look into the connection between the independent factors (employee, health and safety, and environmental) and the dependent variable (return on assets).

“This research uses E-View version 10's panel regression model to analyses how CSR affects the financial performance of Nigeria's listed oil and gas. The validity of the research was checked using the panel regression model, which has elements of both the fixed effect and random effect models. To choose the best model between random and fixed effects, the Hausman test was used. A random effect model was found to be the most appropriate model for the research. Therefore, the research shows that listed oil and gas companies in Nigeria's ROA are significantly affected by their corporate environmental and social responsibility (EE, HS). This indicates that a company's financial performance, as measured by its return on assets (ROA), increases significantly with increases in environmental expenditures (EE) but decreases with decreases in human capital investment (HS).”

A value of R^2 of 40% shows that 40% of the variance in financial performance can be attributed to the independent variables. The R-squared value after correction is 38%, which means that adding new independent variables does not materially change the results. The standard error of the regression, at 0.1028833, indicates that the measurement error of the dependent variable and the unobserved explanatory components in the study are small.

The constant value of 0.10, which is statistically significant, strengthens the conclusion that financial performance consistently increases by 10% in the absence of explanatory variables.

CONCLUSION AND RECOMMENDATIONS

“Based on the aforementioned data, this research asserts that engaging in effective social responsibility and corporate governance initiatives may enhance the business's financial performance regarding listed oil and gas companies in Nigeria. The study's results indicate that the variables being examined have statistical significance, with the exception of EVE, which does not exhibit significance. This suggests that there is a need for oil and gas companies in Nigeria to allocate more resources towards meeting the environmental and social infrastructure requirements in this particular domain. By investing in such projects, oil and gas companies in Nigeria may enhance their financial performance as environmental spending has a big impact on financial performance.”

“Also, the findings suggest that a rise in the value of employees' health and safety has a beneficial impact on financial success. As previously said, an incremental rise in spending will result in a corresponding improvement in the overall performance of the Nigeria oil and gas companies. This suggests that the money spent on the employees has a significant and favorable impact on the Nigeria selected oil and gas companies' financial achievement.”

The research concludes that corporate social responsibility (CSR) has a significant impact on the financial performance of oil and gas companies listed on Nigerian Exchange Group (NGX).

Based on the data and conclusions derived from the research, the below recommendations are made. Considering the premise that corporate responsibility is conducive to profit attainment, it is essential for oil and gas companies in Nigeria to include this duty in their policy declarations. Furthermore, they should substantiate it by implementing efficient budgetary measures and enhancing the operational environment in which they function. Several studies on environmental conflict resolution have demonstrated that there can be disagreements between corporations and their surroundings. One contributing element to such disputes is the enterprises' inability to generate good impacts on their surrounding ecosystems. The report suggests that shareholders should exert pressure on company management at their annual meeting in order to establish a robust and organized framework for corporate social responsibility.

Due to the financial consequences associated with corporate social responsibility, it is essential for workers to enhance their effectiveness and efficiency in fulfilling their duties. By optimizing their effectiveness and efficiency, firms may reduce production costs. Consequently, a portion of the saved funds can be allocated towards addressing responsibility concerns. Additionally, companies should prioritize staff development in order to enhance their performance.

Recommendations for Future Research

“Researching the connection between CSR and financial performance on listed oil and gas companies in Nigeria could be expanded upon by including additional factors and using other approaches. In addition, more research on the link between CSR and FP in other sectors represented on the Nigerian Exchange Group is possible.”

“This study identified return on assets (ROA) as the measure of financial performance, other study can also make use of return on equity (ROE), gross and net profit margin, Operating Cash Flow, Total Asset and Inventory Turnover among others.”

“Similarly, other study can also explore other indicators of the corporate social responsibility such as: the environment, community, human rights, employees, diversity, production and corporate governance apart from the three that were used in this study.”

CONTRIBUTION TO FUTURE RESEARCH

“The changes in employees' health and safety affected the chosen oil and gas companies' financial performance positively and this is a contribution to future research on how other employees' benefits that can affects companies' financial performance of how the firm is performing financially after announcing its sustainability initiatives. According to the findings, more research should be conducted to understand how corporate social responsibility affects the financial performance of other industries using employees' and external stakeholders' health and safety as a major variable. Future research may also make use of the current econometric model to assess corporate social responsibility.”

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