Correlation between Environmental, Social and Governance Factors with Corporate Financial Performance of Oil and Gas Firms in Nigeria

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Abstract

Research Objective: The study aimed to examine the correlation between environmental, social, and governance (ESG) factors and the corporate financial performance of oil and gas firms in Nigeria, focusing on corporate social responsibility (CSR) expenses, employees' compensation, and directors' remunerations.

Methodology: The study analyzed secondary data collected from the audited financial statements of five oil and gas firms listed on the Nigeria Exchange Group between 2013 and 2022. Using panel least square regression and correlation analysis, it evaluated the relationships between the selected ESG factors and profit for the year.

Findings: The analysis revealed that both CSR expenses and employees' compensation have a strong and positive correlation with profit, indicating that these factors significantly contribute to improved financial performance. However, the correlation between directors' remuneration and profit was positive but weak, suggesting a limited impact on financial outcomes.

Conclusion: The findings suggest that enhancing ESG factors, particularly CSR efforts and fair employee compensation, could increase the financial performance of oil and gas firms.

Recommendations: The study recommends that oil and gas firms in Nigeria should award more scholarships to indigent students in their host communities, construct additional infrastructure, and actively participate in other community development efforts to boost their corporate financial performance. Furthermore, firms should adopt competitive salary structures, implement pension and gratuity schemes, and invest in employee welfare services such as transport, medical care, and recreation. Additionally, firms should appoint qualified directors, compensating them fairly to ensure effective governance and mitigate corporate risk, ultimately improving corporate earnings.

***Key words:** Environmental, Social, Governance, Corporate financial performance, Oil and Gas firms.*

1. INTRODUCTION

1.1 Background of the Study

In the past few decades, the information needs of firms' stakeholders have expanded beyond financial information. Non-financial information about a firm's operations is increasingly becoming vital for stakeholders. In view of this, firms' environmental, social and governance performance has become prominent and has heightened the interest of firms' market participants. Publicly traded companies are now more sensitive to the disclosure of environmental, social and governance performance in order to protect their ethical values, firm reputation and to influence the behavior of stakeholders (Rezaee 2016). The negative effect of global financial crises has further highlighted the need to incorporate environmental, social and governance performance into corporate strategic thinking. Environmental, social and governance was introduced in 2005 after a study called "who cares wins" was conducted to search ways of incorporating environmental, social and governance into organizational activities (Almeyda and Darmansyah, 2019). Stakeholders are, therefore, increasingly concerned about non-financial metrics especially environmental, social and governance performance as a result of the global financial crisis and its negative effects on growth and development (Albitar, et al, 2020).

Carnini et al (2022) defined environmental, social, and governance as the management and direction of all business concerns via a coordinated set of activities and processes that take into account the company's impact on the environment, its interactions with local communities, and the needs of its employees and customers. Almeyda and Darmansyah (2019) noted that the environmental actions of a company relate to the company's efforts in building a good impact for the environment by following the regulations related to the environment. The social actions are all about how well a company threat its stakeholders including the host communities. The governance aspect is incorporating the firm's integrity and ethical behavior within the management system of the company including the board of directors.

Buallay (2019) stated that building up a strong environmental, social and governance performance is expected to generate costs that shall be compensated by revenue stability, lower business risks, positive performance effects, and significant added value. Simionescu et al (2020) noted that companies are beginning to take responsibility for the impacts their actions on the communities and the natural world. Whether favorable or bad, all businesses have some kind of impact on the community and the natural world. Bătaea, et al (2020). Stated that executives need to pay more attention to local communities, product quality, and workforce improvement as part of corporate social responsibility. Above all, implementing better governance structures will decrease business risk and create shareholder wealth.

Existing literature in this area of study have primarily focused on corporate social responsibility programs and their effects on firm profitability or firm value while some studied the effect of corporate governance on financial performance. None of these studies has holistically addressed the issue of non-financial performance of the corporate performance of environmentally active firms such as oil and gas firms. It is in the light of this development that the present study examined the correlation between environmental, social and governance factors with corporate financial performance of oil and gas firms in Nigeria. a framework used to assess an organization's business practices and performance on various sustainability and ethical issues.

1.2 Statement of the Problem

Environmental, social and governance is a set of non-financial standards for a company's behavior used by socially conscious investors to screen potential investments. After the global financial crisis, companies focus more on environmental, social and governance activities to recover their reputation in the market place by behaving socially responsible. Thus, the importance of environmental, social and governance to a business organization cannot be overemphasized. A strong environmental, social and governance performance results in revenue stability, lower business risks, creates positive performance and significant added value. ESG programs ensure accountability and the implementation of systems and processes to manage a company's impact, such as its carbon footprint and how it treats employees, suppliers and other stakeholders. Firms in developed economies are increasingly embracing EGS to manage their relationships with both internal and external stakeholders including the host communities, board, employees, suppliers and the government and by so doing minimize risks, enhance firm reputation and corporate performance. However, in developing economies especially in Nigeria, the oil and gas firm managers are more concerned with financial performance so as to service the interest of shareholders while little or no attention is paid to non-financial performance, such and environmental, social and governance factors. This high focus on only the financial performance and the neglect of non-financial factors has over the years resulted in youths' restiveness, vandalization of oil pipelines, poor risk management, huge environmental costs, lack of staff motivation and the consequent high staff turnover and poor relationship with host communities. A lot of oil and gas firms in the country has died off and exited the market as a result of this development. This development prompted the present study to investigate the correlation between environmental, social and governance expenses with corporate financial performance of oil and gas firms in Nigeria.

1.3 Objectives of the Study

The main objective of the study is to determine the correlation between environmental, social and governance factors with corporate financial performance of oil and gas firms in Nigeria. The specific objectives of the study are:

i. Examine the correlation between corporate social responsibility expenses and profit for the year of oil and gas firms in Nigeria.
ii. Ascertain the correlation between employees' compensation and profit for the year of oil and gas firms in Nigeria.
iii. Evaluate the correlation between board remunerations and profit for the year of oil and gas firms in Nigeria.

1.1 Research Questions

The following research questions were formulated in line with the specific objectives of the study

i. What is the correlation between corporate social responsibility expense and profit for the year of oil and gas firms in Nigeria?
ii. How does employees' compensation relate with profit for the year of oil and gas firms in Nigeria?
iii. To what extent does board remunerations relate with profit for the year of oil and gas firms in Nigeria?

1.5 Statement of Hypotheses

The following null hypotheses were formulated to address the research questions

i. Corporate social responsibility expense does not significantly affect profit for the year of oil and gas firms in Nigeria.
ii. Employees compensation does not significantly affect profit for the year of oil and gas firms in Nigeria.
iii. Board remunerations does not significantly affect profit for the year of oil and gas firms in Nigeria.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Environmental, Social and Governance

Brock and Courage (2023) defined environmental, social, and governance as a set of standards for a company's behavior used by socially conscious investors to screen potential investments. Environmental criteria consider how a company safeguards the environment, including corporate policies addressing climate change, for example. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. Governance deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights. Mathis and Stedman (2023) also described environmental, social and governance as a framework used to assess an organization's business practices and performance on various sustainability and ethical issues. It also provides a way to measure business risks and opportunities. In capital markets, some investors use ESG criteria to evaluate companies and help determine their investment plans, a practice known as ESG investing.

Zuraida et al. (2018) noted that business managers recognize the importance of environmental, social and governance and sustainability activities since they play a crucial role in the long-term viability and reputation of a company. Investors, financial analysts, and policymakers also utilize non-financial environmental, social and governance information to obtain a holistic assessment of a company's performance and future prospects in the market.

Mathis and Stedman (2023) equally noted that the role of an ESG program is to ensure accountability and the implementation of systems and processes to manage a company's impact, such as its carbon footprint and how it treats employees, suppliers and other stakeholders. Buallay (2019) noted that building up a strong environmental, social, and governance performance is expected to generate costs that shall be compensated by revenue stability, lower business risks, positive performance effects, and significant added value.

Dah and Jizi (2018) noted that corporate scandal and accounting fraud are argued to be the primary cause of the global financial turmoil. Therefore, after the global financial crisis, companies focus more on environmental, social and governance activities to recover their reputation in the market by behaving socially responsible. Chollet and Sandwidi (2018) stated that environmental, social, and governance practices are significant to all firm stakeholders. Good social and governance performance has a significant role in reducing financial risk and reinforcing firms' commitment to good governance and environmental practices. Brown and Caylor (2009) observed that strong corporate governance of is crucial for a company's future operations and upholding stable financial performance and growth.

Porter and Kramer (2011) stated that positive environmental, social and governance activities benefit various stakeholders, and ultimately creates direct value for shareholders.

2.1.2 Corporate Social Responsibility Expenses

Ong, et al (2016) defined corporate social responsibility as the compensation paid by firms as a result of the firm's usage of the natural and environment resources. Thus firms should treat and manage the environment very well for the benefit of all the stakeholders of the environment. Rasche, et al (2017) opined that corporate social responsibility is the integration of an enterprise's social, ethical, environmental, and philanthropic responsibilities towards society into its processes, operations, and core business strategy in cooperation with relevant stakeholders. Yiping (2019) noted that corporate social responsibility arises when firms conduct their business in an ethical way by considering their social, economic, and environmental impact and human rights. When a firm only pays attention to maximizing profits and neglects its social responsibility, it may eventually bring negative events to society. Corporate social responsibility can be related to food safety, environmental pollution, tax evasion, and so on. As a result, the reputation of an enterprise will be seriously threatened while the sustainable development of society will be endangered. Enterprises have gradually realized the importance of social responsibility and are willing to pay costs related to corporate social responsibility. Odetayo, et al (2014) opined that business exist within an environment in which they operate, therefore business organizations need to give back positively to the environment in order to participate in development of such society. Thus, corporate social responsibility is the way business organization gives back to society where they are operating. Social responsibility is obtainable by rendering selfless service to charitable organizations, government agencies, religious organizations and tertiary institutions.

2.1.3 Employees' Compensation

Landefeld, et al (2010) defined staff cost or employee's compensation as the sum of wages and salaries and of supplements to wages and salaries. Wages and salaries, which generally accounts for over 80 percent of compensation, consists of cash remuneration of labor (including sick or vacation pay, severance pay, commissions, tips, and bonuses), and in-kind remuneration of labor such as transit subsidies and meals. Staff cost measures the total remuneration, in cash or in kind, that accrues to employees in return for their work during the accounting period, regardless of when they are paid. Nangih, et al (2020) equally described staff cost or employees' cost as salaries/wages, staff medical expenses, staff training expenses and staff pension costs. Staff costs constitute a major component of the organization's recurrent or administrative costs. They involve expenses for the payment of employees' salaries and wages, cost of employees' trainings, cost of staff medicals and even costs incurred for providing employees' retirement benefit and pension schemes. Nwachukwu (2009) stated that in any organization, be it in the private or public sector, staff cost is a very sensitive issue, not only to management but also to employees. Poor remuneration is a constant source of frustration and that if labour and management are engaged in constant strife, it will result in decrease in productivity and profitability by extension.

2.1.4 Directors Remuneration

Junaidu and Sanni (2014) defined directors' compensation as financial compensation and other non-financial awards received by an executive from their firm for their service to the organization. This typically a mixture of salary, bonuses, shares of or call options on the company stock, benefits, and perquisites, ideally configured to take into account government regulations, tax law, the desires of the organization and the Executive, and rewards for performance. Eduardo (2009) stated that executive directors' compensation consists of three elements, a base salary, an annual cash bonus plan, and a stock-based plan. While salary is based on an annual fixed amount and long-term incentive typically links executive compensation to the firm 's share price at some future date, short-term incentive payoffs usually stem from more immediate, operational performance drivers. Scholtz and Smit (2012) noted that lower remuneration package could result in poor performance because it will not motivate the directors to work hard in a way which is acceptable to shareholders, excessive remuneration could lead to poor firm performance because well-remunerated directors may be less likely to increase performance. Soni and Singh (2020) postulate that large payments to directors' act as drainage to shareholders' wealth especially when remuneration is not linked with organization performance. It is argued that payment of excessive remuneration was one of the contributing factors inducing the global financial crisis in developed countries.

2.1.5. Corporate Financial Performance

Kenton (2021) defined corporate financial performance as a subjective measure of how well a firm can use assets from its primary mode of business to generate revenues. It is a quantitative metrics that serves as a general measure of a firm's overall financial health over a given period. It is a snapshot of its a firm's economic health and the job its management is doing. That tells investors about the general well-being of a firm. Financial statements used in evaluating overall financial performance include the statement of financial position, the income statement, and the statement of cash flows. There are many stakeholders in a company, including trade creditors, bondholders, investors, employees, and management. Each group has its own interest in tracking the financial performance of a company. The financial performance identifies how well a firm generates revenues and manages its assets, liabilities, and the financial interests of its stakeholders. Hossan (2010) suggested that financial performance is usually related to how well the firm managers can use its assets, shareholders' equity, liability, revenue and expenses to achieve organizational objectives. Financial ratio analysis is one of the best tools of performance evaluation of firms. This is because, ratio analysis is used for measurement of firm liquidity position, asset management condition, profitability, debt coverage and market value (firm value). Muli (2014) noted that financial performance metrics that have been the traditional means of measuring the performance of an organization is profitability ratio. The most commonly used profitability ratios include, return on assets, return on equity and earnings per share. Profitability is the most commonly used of the financial performance metrics. This study, however, adopted profit for the year as a measure of corporate financial performance.

2.1.6. Profit for the Year

James (2021) defined profit for the year also known as profit after tax as the amount that remains after a company has paid off all of its operating and non-operating expenses, other liabilities and taxes. This profit is what is distributed by the entity to its shareholders as dividends or is kept as retained earnings in reserves. Profit for year is a hybrid calculation that allows analysts to compare firm performance without the influence of leverage. In this way, it is a more accurate measure of pure operating efficiency. Khan and Ali (2016) stated that profit is the revenues earned by firms, against their operations and incurred expenses. The enhancement of profitability is the ultimate purpose of every firm, and each of them strives to achieve optimum profitability. Kathuri, (2014) noted that firms that are more profitable are assumed to grow while firms that are less successful or are less profitable are assumed to lose market share. Profitable firms are in a position to gain competitive advantage either through the discovery of cost reducing innovations or by imitating the best practices of the industry. An above average profitability leads to a firm to a subsequent growth trajectory.

Fig 2.1: Conceptual Framework

2.2 Theoretical Framework

This study is anchored on the Stakeholders Theory propounded by Edward Freeman in 1984.

2.2.1 Stakeholders Theory

Edward Freeman propounded the Stakeholders' Theory in 1984. The theory state the contrary to Agency Hypothesis that view organizations as a system of relationship between shareholders and management, stakeholders' theory view organizations as a system that accommodates not only the interest of the owners but also the interests of other groups within the environment which the organization operates. The theory argued that since organizations cannot operate and exist in isolation without relating with its immediate environment then the interest of other stakeholders like employees, customers, suppliers and host community might be considered in the process of strategic decision making. Therefore, the main argument of the theory, as pointed by Lawal (2011), is that organizations should not only maximize the returns of shareholders alone, but also the expectations of other stakeholders should be considered. Finally, the theory argued that for a firm to achieve effective performance in the market, cordial relationship must exist between the firm and the stakeholders and the firm board should be large and diversified enough to accommodate the interest of other stakeholders. The stakeholder's theory proposed an increased level of environmental awareness which creates the need for companies to extend their corporate planning to include the none-traditional stakeholders like the regulatory adversarial groups in order to adapt to changing social demands (Malarvizhi & Yadav, 2008). The main concern of the stakeholders' theory in environmental accounting is to address the environment cost elements and valuation and its inclusion in the financial statements.

2.3 Empirical Review

2.3.1 CSR Expenses and Corporate Financial Performance

Arumona, et al (2020) used ordinary least square regression analysis to investigate the effect of environmental disclosure on financial performance of quoted oil and gas companies in Nigeria. The independent variable is proxied by research and development cost and estimated future expenditure while dependent variable is measured with net profit margin and return on asset. The secondary data obtained from the annual reports of 12 oil and gas companies quoted on the floor of the Nigeria Stock Exchange during 2010- 2019 periods were used. Results show that environmental disclosure has positive and statistically significant effect on financial performance of oil and gas companies in Nigeria during the period. Rahmawati and Putri (2020) analyzed the effect of corporate social responsibility on financial performance with earnings management as a moderating variable. Purposive sampling technique was used to select a sample of twenty-seven (27) firms listed in Indonesia Stock Exchange during the period from 2006 to 2008. Ordinary least square regression was used to analyze the data extracted from the selected firms. Result of analysis provides evidence that firms that engage in the practice of earnings management have no influence on corporate social responsibility activities. Based on corporate social responsibility, it was ascertained that the activities associated with earnings management practices negatively affect the firm's financial performance.

Rehan, et al (2018) assessed the effect of corporate social responsibility on profitability of Banks in Pakistan. A sample of eight (8) banks operating in Pakistan during the period from 2006 to 2017 were selected for the study. Donations and money spent on staff welfare were used as the independent variables to proxies for corporate social responsibility while earnings per share, return on asset and return on equity are the dependent variables and measures of bank profitability. Income variability, size of firm and expected growth rate were used as the control variables. Panel data regression analysis was used to examine the data extracted from the annual reports of the selected banks. Results shows that corporate social responsibility, firm growth and firm size have positive & significant effect on return on equity while income variability have negative effect on return on equity and return on assets. All variables have positive effect on earnings per share but income variability have negative effect on earnings per share. Iheduru and Chukwuma (2019) studied environmental and social costs and the performance of manufacturing firms in Nigeria in 2016. A sample of fourteen (14) food and beverages manufacturing firms listed on Nigeria Exchange Group was randomly selected for the study. Secondary data of 2016 were collected from the selected firms and analyzed using multiple regression models. Findings suggest that a significant negative relationship exists between environmental and social costs and return on capital employed and earnings per share. A significant positive relationship between environmental and social costs and net profit margin and dividend per share were also established.

2.3.2 Employees' Compensation and Corporate Financial Performance

Giami and Iwo (2021) analyzed the relationship between cost of staff welfare and financial performance of listed manufacturing pharmaceutical firms in Nigeria during 2011-2019 periods. Cost of staff welfare was used as a dependent variable while growth in sales and return on assets were used as independent variables. The sample consists of five (5) pharmaceutical firms that consistently submitted their annual account to Nigeria Exchange Group during the period. Secondary data were extracted from the published annual reports of the selected firms. The data were analyzed using descriptive statistics, ANOVA and linear regression analysis. Findings suggest that a significant positive correlation and statistically strong relationship exists between the cost of staff welfare and both growth in sales volume and return on assets respectively. Okoye and Ifeukwu (2021) investigated the effect of human resource cost on financial performance of quoted brewery firms in Nigeria. The specific objectives are, to ascertain the effect of staff cost on net profit margin, and return on asset of quoted brewery firms in Nigeria. Secondary data were extracted from the annual report and accounts of breweries firms quoted on Nigerian Exchange Group during 2007-2019 periods. The data obtained from the annual reports and financial statements of the slected firms were analyzed using Multiple Regression Analysis. Results indicate that staff cost has positive and significant affect net profit margin and return on equity of quoted brewery firms, while staff cost has positive but insignificant effect on return on assets.

Bankole (2020) evaluated the influence of human resource cost on financial performance of consumer goods companies in Nigeria. The sample consist of ten (10) consumer goods firms listed on Nigeria Exchange Group during 2009-2018 periods. The data obtained from the selected firms were analyzed using Static Panel Estimation Techniques which consisted of

Pooled Ordinary Least Square Estimator, Fixed Effect Model and Random Effect Model. Findings indicate that predictors pension cost, director's emolument and gratuity cost exerts positive and statistically significant impact on return on assets. Result also show that the predictor salary and wages exerts positive but insignificant impact on return. Ndum and Oranefo (2021) assessed the effect of human resource cost on financial performance of quoted brewery firms in Nigeria. The population of the study consists of five (5) breweries firms listed on Nigerian Exchange Group as at 2019 and have consistently submitted their annual reports to the Nigeria Exchange Group from 2007 to 2019. Data were obtained from the published annual reports of the firms and were analyzed using descriptive statistics and regression analysis. Results show that staff cost has positive and significant effect on the net profit margin of the brewery firms, while staff cost has positive and insignificant effect on the return on assets.

2.3.2 Directors' Remunerations and Corporate Financial Performance

Appah, et al (2020) investigated the effects of directors' compensation on the financial performance of listed deposit money banks in Nigeria from 2008 to 2018. Financial performance was proxied with return of asset and return on equity while the directors' remuneration was measured with directors' salary, bonus and stock option. Bank seize was used as the control variable. Five deposit money banks listed on the Nigeria Exchange Group during the period were sampled for the study. The selected banks are: First Bank of Nigeria, Zenith Bank of Nigeria, United Bank for Africa, Guarantee Trust Bank, and Union Bank of Nigeria. The data obtained from the annual financial statements were examined using multiple regression analysis. Result of analysis suggest that there is a relationship between directors' salary and return on assets and return on equity of the banks. Results further show that there is a relationship between directors' bonus and return and assets and return on equity. It was also ascertained that there is a relationship between directors' stock option and return on assets and return on equity of the banks. Akter et al (2020) studied the impact of board incentives with directors` remuneration on the financial performance of listed textile firms in Bangladesh. Using Generalized Method of Moments and data pertaining to listed textile firms in Dhaka Stock Exchange during 2011-2017 periods. Thus, a total of 140 firm-year observations was used to estimate the firm performance equation involving directors' remuneration and board independence as the independent variables and some other control variables like firm age, size, leverage, and operating efficiency. Findings show that there is a negative association between board remuneration and firm performance. In addition, this study found no significant relationship between board independence and firm performance. This results also suggest that currently directors` remuneration is not aligned with the firm performance.

Tarun and Amrinder (2020) investigated the trends and patterns in remuneration of directors working for the largest thirty (30) listed companies in India over the past 18 years (2002-2019). Directors remuneration is the independent variable while ROA, profit before dividend, interest and tax were used as the dependent variables. Firm size, governance, leverage and risk are the control variables. Correlation and panel least square regression were used to analyze the data. Findings show that short-term bi-directional association between directors' remuneration and firm performance variables. Finding also confirm the subsistence of a strong pay-performance association for the variable components of directors' remuneration. A positive relationship with board size indicating larger boards fail to exercise control on paying excessive remuneration to its directors. Ahmed et al (2020) analyzed the moderating effect of selected board attributes on the relationship between directors' remuneration and financial performance of listed insurance companies in Nigeria. The study targeted all twenty-eight (28) insurance firms listed on the Nigerian Exchange Group during the period. A sample of nineteen (19) firms were selected using purposive sampling method. Data were generated from annual reports of selected Insurance companies covering 2012 to 2017. The data were analyzed using panel data regression analysis. Results show that directors' remuneration is positively and significantly related to financial performance. On the interaction variables, it was found that the presence of more independent directors on the board strengthens the positive impact of directors' remuneration on firm performance.

3. METHODOLOGY

3.1 Research Design

The study adopted *ex-post facto* research design by using series data obtained from the annual reports and financial statements of the selected oil and gas firms listed on Nigeria Exchange Groups during 2013-2022 periods as the basis for research findings and conclusion.

3.2 Sources of Data

The source of data for the study is secondary data, which were obtained from the annual reports and financial statements of the selected oil and gas firms listed on Nigeria Exchange Group during 2013 to 2022 periods.

3.3 Area of Study

This study was conducted in Nigeria and specifically on oil and gas firms listed on the Nigeria Exchange Group during 2013 to 2022 periods.

3.4 Population

A total of nine (9) oil and gas firms were listed on Nigeria Exchange Group during the period of the study. These nine firms constituted the population of the study.

3.5 Determination of Sample Size

Purposive sampling technique was used to select a sample of five (5) oil and gas firms were selected from the population of nine (9) oil and gas firms listed on the Nigeria Exchange Group during the period. Disclosure of corporate social responsibility expenses in the annual report and financial statement is the basis for this section. The firms that meet this criterion and were selected for the study are: Total Energies Nigeria Plc, Oando Nigeria Plc, MRS Oil Nigeria Plc, Mobil Oil Plc and Eterna Nigeria Plc.

3.6 Model Specification

The following model was developed based on the variables of the study:

$PFY = \beta_0 + \beta_1 CSRE + \beta_2 EPTR + \beta_3 DITR + \varepsilon$

Where:

PFY = Profit for the Year

CSRE = Corporate Social Responsibility Expenses

EMPC = Employees Compensation

DITR = Directors Remunerations

β = Beta

ε = error terms

3.7 Description of Variables

Variable Name	Label	Description
Profit for the Year	PFY	Profit describes the financial benefit realized when revenue generated from a business activity exceeds the expenses, costs, and taxes involved in sustaining the activity in question.
Corporate Social Responsibility Expenses	CSRE	Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable to itself, its stakeholders, and the public. It is a business model by which firms make a concerted effort to operate in ways that enhance rather than degrade society and the environment.
Employees Compensation	EMPC	Staff compensation are expenditures incurred by entities for its members of staff. They include wages and salary; allowances and incentives, overtimes payments; pensions and gratuity, leave allowances, free or subsidized meals, transport expenses, medical expenses, recreational facilities among others
Directors Remuneration	DITR	Directors' remuneration is the payment made for services of directors on the board of a company or corporation. Directors may be compensated by fee, salary, and or use of the company's property as an agreement between them and the company.

Source: Authors Compilation 2023.

3.8 Methods of Analysis

Descriptive Statistics was used as diagnostic tools of analysis while Parsons Product Moment Correlation and Panel Least Square Regression Analysis were used as the main statistical tool of analysis. Jaque-Bera Statistics, Skewness and Kurtosis tests were used to determine the distribution of the data set while Adjusted Coefficient of Determination (R^2) was used to measure the extent to which the predictive variables explained earnings Profit for the Year of the oil and gas firms. F-Statistics was used to determine the predictive power of the model. Corporate social responsibility expenses, employees' compensation and directors' remuneration were used as the predictive variables and proxies for environmental, social and governance factors while profit for the year was used as the independent variable and measure of corporate financial performance.

4. DATA ANALYSIS AND DISCUSSION OF RESULTS

The data obtained from the annual audited financial statements of the selected oil and gas firms were analyzed using descriptive statistics, panel least square regression and correlation analysis. The results of analysis are presented in tables 4.2.1 to 4.2.3 of the study.

Table 4.2.1: Descriptive Statistics

	PFY	CSRE	EPRM	DITR
Mean	-5558788.	43906.30	4716660.	561388.5
Median	2911243.	20723.50	2506192.	253806.5
Maximum	32858799	173436.0	13174416	2775689.
Minimum	-2.07E+08	244.0000	386305.0	1928.000
Std. Dev.	45673210	49090.13	4312940.	790290.2
Skewness	-3.503003	1.122332	0.523057	1.626824
Kurtosis	14.37427	3.101330	1.757226	4.336531
Jarque-Bera	371.7878	10.51830	5.497592	25.77611
Probability	0.000000	0.005200	0.064005	0.000003
Sum	-2.78E+08	2195315.	2.36E+08	28069427
Sum Sq. Dev.	1.02E+17	1.18E+11	9.11E+14	3.06E+13
Observations	50	50	50	50

Source: E-View 11.0 Output

The descriptive statistics in Table 4.2.1 shows the mean of the variables, the maximum, minimum values, standard deviation and Jarque-Bera (JB) Statistics. These result provided some useful insights into the statistical nature of the variables used to conduct the study. For instance, the results show that mean of the variables are: -5558788, 43906.30, 4716660 and 561388.5 for the PFY, CSRE, EPRM and DITR respectively. The results further show that the standard deviations of the variables are: 456732.10, 49090.13, 4312940 and 790290.20 respectively. These results suggest that PFY, CSRE, and DITR recorded standard deviations which are higher than their respective mean. On the contrary, EMPR recorded standard deviation that is lower than its mean. This implies that PFY, CSRE and DITR were volatile during the period while EMPC was less volatile during the period.

Table 4.2.2: Panel Least Regression Analysis

Dependent Variable: PFY

Method: Panel Least Squares

Date: 10/09/23 Time: 09:17

Sample: 2013 2022

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSRE	227.4490	183.7942	2.237520	0.0228
EPRM	2.751442	3.861894	3.712459	0.0401
DITR	19.30952	14.66456	1.316747	0.1951
C	17682707	15410709	1.147430	0.2577

Effects Specification

R-squared	0.691562	Mean dependent var	-5558788 .
Adjusted R-squared	0.515156	S.D. dependent var	45673210
S.E. of regression	41228622	Akaike info criterion	38.05281
Sum squared resid	7.14E+16	Schwarz criterion	38.35873
Log likelihood	-943.3203	Hannan-Quinn criter.	38.16931
F-statistic	2.590599	Durbin-Watson stat	1.899222
Prob(F-statistic)	0.025768		

Source: E-View 11.0 Output

Table 4.2.2, presents the panel least square regression model of the study. Results show that the regression line has a positive intercept as presented by the constant (C) =17682707 which is statistically not significant at 0.05 (0.2577>0.05). The regression result also indicates that Adjusted Coefficient of Determination (R^2) is 0.515156. This implies that 51% of the variation in the Profit for the Year of the oil and gas firms is explained by the independent variables, consisting of, Corporate Social Responsibility Expenses(CSRE), Employees' Compensation (EMPC) and Directors Remunerations (DITR) while the remaining 49% is explained by other factors not included in the model of the studies. The findings also show that the coefficient of the F-Statistics is 2.590599 while the P-value is 0.025768, which is less than 0.05 (0.025768<0.05). This suggest that the model is strong in predictive Profit for the Year of the oil and gas firms. The coefficient of Durbin-Watson Statistics as could be observed from the model is 1.899222, which is close to the minimum benchmark rate of 2. This suggest that that there is no autocorrelation in the model of the study.

Table 4.2.3: Correlation Analysis

	PFY	CSRE	EPRM	DITR
PFY	1.000000	0.131459	0.300316	0.421154
CSRE	0.631459	1.000000	0.712640	0.415687
EPRM	0.500316	0.712640	1.000000	0.702673
DITR	0.421154	0.415687	0.702673	1.000000

Source: E-View 11.0 Output

Corporate Social Responsibility Expenses and Corporate Financial Performance: Results from the correlation analysis in table 4.2.3 indicate that the correlation coefficient of

ISSN: 2251-032X Volume 15, Issue 2, Pages 1 - 20: 2024

Corporate Social Responsibility Expenses (CSRE) is 0.631459, which is positive and strong. In view of this, we state that CSRE positively and strongly correlate with Profit for the Year (PFY) of oil and gas firms in Nigeria. This result corroborated the finding from the Panel Least Square Regression Model in table 4.2.2. From the table, the regression coefficient of CSRE is 227.4490 while the P-value is 0.0228, which is less than 0.05 (0.0228< 0.05). Thus, we conclude that CSRE positively and significantly affect Profit for the Year of oil and has firms in Nigeria. This result is consistent Stakeholders' Theory propounded by Edward Freeman in 1984. The theory argued that since organizations cannot operate and exist in isolation without relating with its immediate environment, then the interest of other stakeholders like employees, customers, suppliers and host community must be considered in the process of strategic decision making.

The results are also consistent with: Arumona, et al (2020) who investigated the effect of environmental disclosure on financial performance of quoted oil and gas companies in Nigeria. Findings show that environmental disclosure has positive and statistically significant effect on financial performance of oil and gas companies in Nigeria during the period. Rehan, et al (2018) assessed the effect of corporate social responsibility on profitability of Banks in Pakistan. Results shows that corporate social responsibility, firm growth and firm size have positive and significant effect on return on equity while income variability have negative effect on return on equity and return on assets. Iheduru and Chukwuma (2019) studied environmental and social costs and the performance of manufacturing firms in Nigeria in 2016. A significant positive relationship between environmental and social costs and net profit margin and dividend per share were also established.

Employees' Compensation and Corporate Financial Performance: Results from the correlation analysis also show that the correlation coefficient of Employees Compensation (EMPC) is 0.500316, which is positive and strong. Therefore, we assert that EMPC positively and strongly correlate with Profit for the Year (PFY) of oil and gas firms in Nigeria. This result in line with the finding from the Panel Least Square Regression Model. From the model, the regression coefficient of EMPC is 2.75144 while the P-value is 0.0401, which is less than 0.05 (0.0401< 0.05). Therefore, we state that EMPC positively and significantly affect Profit for the Year of oil and has firms in Nigeria. This result is consistent Stakeholders' Theory propounded by Edward Freeman in 1984. The main argument of the theory, is that organizations should not only maximize returns for shareholders alone, but also the expectations of other stakeholders should be considered.

The result is also consistent with: Giami and Iwo (2021) who analyzed the relationship between cost of staff welfare and financial performance of listed manufacturing pharmaceutical firms in Nigeria. Findings suggest that a significant positive correlation and statistically strong relationship exists between the cost of staff welfare and both growth in sales volume and return on assets respectively. Okoye and Ifeukwu (2021) who investigated the effect of human resource cost on financial performance of quoted brewery firms in

Nigeria. Results indicate that staff cost has positive and significant affect net profit margin and return on equity of quoted brewery firms, while staff cost has positive but insignificant effect on return on assets. Bankole (2020) who evaluated the influence of human resource cost on financial performance of consumer goods companies in Nigeria. Result show that the predictor salary and wages exerts positive but insignificant impact on return. Ndum and Oranefo (2021) who assessed the effect of human resource cost on financial performance of quoted brewery firms in Nigeria. Results show that staff cost has positive and significant effect on the net profit margin of the brewery firms, while staff cost has positive and insignificant effect on the return on assets.

Financial

Directors' Remunerations and Corporate Financial Performance: The correlation analysis further suggest that the correlation coefficient of Directors. Remunerations (DITR) is 0.421154, which is positive, weal. Hence, we opine that correlation between DITR and Profit for the Year (PFY) of oil and gas firms in Nigeria is positive, but weak. This finding is corroborated by the results of the Panel Least Square Regression Model. From the model, the regression coefficient of EMPC is 19.30952 while the P-value is 0.1951, which is greater than 0.05 (0.1951< 0.05). Thus, we postulate that DITR positively, but non-significantly affect Profit for the Year of oil and has firms in Nigeria. This result is in agreement with Stakeholders' Theory propounded by Edward Freeman in 1984. The theory argued that since organizations cannot operate and exist in isolation without relating with its immediate environment, then the interest of other stakeholders like employees, customers, suppliers and host community must be considered in the process of strategic decision making.

This fining is also in consonance with Appah, et al (2020) who investigated the effects of directors' compensation on the financial performance of listed deposit money banks in Nigeria. Result of analysis suggest that there is a relationship between directors' salary and return on assets and return on equity of the banks. Tarun and Amrinder (2020) who investigated the trends and patterns in remuneration of directors working for the largest thirty (30) listed companies in India. Finding confirm the subsistence of a strong pay-performance association for the variable components of directors' remuneration. A positive relationship with board size indicating larger boards fail to exercise control on paying excessive remuneration to its directors. Ahmed et al (2020) who analyzed the moderating effect of selected board attributes on the relationship between directors' remuneration and financial performance of listed insurance companies in Nigeria. Results show that directors' remuneration is positively and significantly related to financial performance. The study is, however, inconstant with: Akter et al (2020) who studied the impact of board incentives with directors` remuneration on the financial performance of listed textile firms in Bangladesh. Findings show that there is a negative association between board remuneration and firm performance.

Conclusion: The study examined the correlation between environmental, social and governance factors with corporate financial performance of oil and gas firms in Nigeria during the periods from 2013 to 2022. The study was based on a sample of five (5) oil and gas firms listed on the Nigeria Exchange Group during the period. Secondary data were obtained from the annual audited financial statements of the selected oil and gas firms and were analyzed using Descriptive Statistics, Panel Least Square and Correlation Analysis. In line with the results of these analysis, we conclude that Corporate Social Responsibility Expenses and Employees' Compensation positively and strongly correlate with Profit for the Year of oil and gas firms while the correlation between Directors Remunerations and Profit for the Year of oil and gas firms in Nigeria during the period is positive, but weak.

Recommendations

i. The oil and gas firm managers in Nigeria should increase their firms' budgets towards corporate social responsibility expenses so as to boast their firms' corporate financial performance. The firms should award more scholarships to the indigent students of their host communities, construct more infrastructure and participate actively in other community development effort as these will go a long way to increase the firms' reputation and products.

ii. The oil and gas firm managers should adequately compensate their staff members to boast corporate financial performance of the firms. The firms should achieve this by paying competitive salaries, implement staff pension and gratuity schemes, invest in staff welfare services such as canteen, transport, medicals, recreation among others.

iii. The firms should appoint qualified and competent directors, who should be paid reasonable remunerations. Directors remunerations should be in form of cash payment or stock or other forms of remunerations. This will enable the directors devote more time on policy formulation and oversite function, which will go a long way to mitigate corporate risk and maximize corporate earnings.

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