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EFFECT OF CORPORATE SOCIAL RESPONSIBILITY ON FINANCIAL PERFORMANCE OF LISTED OIL AND GAS FIRMS IN NIGERIA

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ABSTRACT: This study investigated the effect of Corporate Social Responsibility (CSR) on the financial performance of listed oil and gas firms in Nigeria from 2014 to 2023. Specifically, it examined how funds allocated to human training, health and education; infrastructure and development; and associations affect the net profit margin of these firms. The population of the study comprised nine listed oil and gas firms in Nigeria. Employing an Ex-Post Factor research design, the study used secondary data extracted from audited annual reports of five selected oil and gas companies listed on the Nigerian Exchange Group (NGX). The data were analyzed using descriptive statistics and ordinary least squares (OLS) regression with E-Views 11 software. The findings are: Funds for human training, health, and education have a positive but non-significant effect on Net Profit Margin of listed oil and gas firms in Nigeria ($\beta = 0.00000008$; $p = 0.2027$); Funds for infrastructure and development have a positive and significant effect on Net Profit Margin of listed oil and gas firms in Nigeria ($\beta = 0.00000009$; $p = 0.0001$); Funds for associations have a positive but non-significant effect on Net Profit Margin of listed oil and gas firms in Nigeria ($\beta = 0.00000002$; $p = 0.5319$).In conclusion, CSR spending alone does not automatically translate into enhanced profitability; rather, the economic effect of CSR appears to depend on the nature of the investment and perhaps the visibility, scale, or strategic alignment of those activities with core business goals. The study recommends that Executive Management should increase funding allocations to infrastructure and development projects, especially those that serve both community and operational needs (e.g., roads, energy access, water). These investments should be scaled and strategically aligned with business operations to enhance both community goodwill and profitability.

Keywords: Corporate Social Responsibility (CSR), Financial Performance, Net Profit Margin, Infrastructure and Development Spending, Nigerian Oil and Gas Firms

INTRODUCTION

In developing countries like Nigeria, oil and gas firms face the problem of managing conflicts with the immediate environments in which the business units are established. In an effort to address that, most oil and gas firms embark in corporate social responsibility (CSR). CSR simple means that Companies in the Cause of discharging their day-to-day activities for the purpose of profit realization, should also take into consideration the effect of their activities on the members of the society in which the companies are residing and the environmental sustainability of their operations.

The origin of CSR in Nigeria Context can be traced back to the presence of unbridled oil in the southern parts of Nigeria (south-south Geo-political zone). The discovery of the oil brought serious conflict between the company and the environment. On the other hand, members of the community are complaining of environmental degradation that leads to various types of hardship and on the other hand, the companies are not willing to accept that they are the major cause of the hardships. These conflicts of interest led to the emergence and implementation of CSR. The Overall objectives being protecting human rights against corporate abuse and on that basis various legislations designed to regulate business and industry in Nigeria came up with. That includes recognition of public interest by companies (Amahalu, Ezechukwu & Obi, 2021).

The starting point for CSR in marketing field is at the very beginning of the 1970s, when researchers argue that CSR is a way of survival. The corporate social Responsibility (CSA) movement is not new and has been gathering momentum for well over a decade. To provide an explanation for the motivation of an increasing level of corporate engagement in CSR activities, Okudo and Ndubuisi (2021), suggest that corporate social behavior is driven by instrumental, relational and moral motives Furthermore, Nzekwe, Okoye and Amahalu (2021) explain the different CSR behavior and how the employees reciprocate socially responsible or irresponsible behavior. Today, most corporate managers believe that operation should go beyond the simple prospect of money making thus managers should try as much as possible to incorporate the interest of the employee, business partners, customers, shareholder and the society at large into their decision making which offers the best ground for consistent profitability. This view in favour of CSR implementation creates difficulty in measuring the real effect of Implementation on consistent profitability of companies. This has become more compounded as various ratios for measuring profitability exist against the backdrop. This study is undertaken with a view of evaluating the effect that implementing CSR has on the financial performance of listed oil and gas firms in Nigeria.

Statement of the Problem

No modern society can run smoothly without oil and gas neither can oil and gas firm in Nigeria be profitable without its environment profit making is a function of so many factors, some of which are indigenous and others exogenous. Amongst the exogenous factors are operational interruption caused by the hosting Community of oil and gas firms. This is due to the concern of the Community over negative and potential negative effects that businesses brought to the community. The effect ranges from environmental degradation to societal conflict as a result of business activities. (Ashiole, Elamoh, Amahalu, 2020). In effort to overcome the existing conflicts between oil and gas firms and hosting environment, the idea of CSR was advocated. While that can be considered as welcome development that avenue for conflicts resolution exist, but the avenue creates more concern over the Implementation and the qualification of the benefits to build the community and oil and gas firm.

Although series of argument based on research are found in literature as to the relevancy or irrelevance of CSR on the hosting environment, there is no unanimous agreement on the subject matter due to peculiarities of settings and the Variations of methodology adopted by the studies. Some of the studies of argued in favour of CSR as it leads to profitability increment societal and environmental stabilities. Other argued that it is a waste and unnecessarily leading to deversion of companies resources to projects that have no explict bearing on profit motive, therefore, Creating a gap in knowledge. I therefore stimulates the need for studying specific setting in order to ascertain the consequential effect of adopting CSR.

Objectives of Study

The main objective of this work is to ascertain the effect of Corporate Social Responsibility on financial performance of listed oil and gas firm in Nigeria.

The specific objectives are.

1. To evaluate the effect of funds for human training. Health and education on Net profit margin of listed oil and gas firms in Nigeria
2. To ascertain the effect of funds for infrastructure and development on net profit margin of listed oil and gas firms in Nigeria
3. To determine the effect of funds for associations on net profit margin of listed oil and gas firm in Nigeria.

Research Questions

The study provides the following research questions.

1. To what extent does funds for human training, health and education affect net profit margin of listed oil and gas firms in Nigeria.
2. To what extent does funds for infrastructure and Development affect net profit margin of listed oil and gas firms in Nigeria
3. To what extent does funds for Associations affect Net profit margin of listed oil and gas firms in Nigeria.

Research Hypotheses

i. H_o: Funds for human Training, health and education have no significant effect on net profit margin of listed oil and gas forms in Nigeria.

   H_a: Funds for human Training health and education significant effect on net profit margin of listed oil and gas firms in Nigeria.

ii. H_o: Funds for infrastructure and development have no significant effect on net profit margin of listed oil and gas firms in Nigeria.

   H_a: Funds for infrastructure and development have significant effect on net profit margin of listed oil gas firms in Nigeria.

iii. H_o: Funds for association have no significant effect on net profit margin of listed oil and gas firms in Nigeria.

H_a: Funds for association have significant effect on net profit margin of listed oil and gas firms in Nigeria.

Significance of the Study

This study on the effect of corporate social responsibility (CSA) on the financial performance of listed oil and gas firms in Nigeria is significant for several stakeholders, including businesses, investors, policy matters and researchers. The study focuses on the effect of different types of funds for training health, education, infrastructure, development, associations on net profit margin of the of the firms.

i. Contribution to business strategy and corporate decision making: Understanding the relationship between CSR and financial performance will help oil and gas firms make data-driven decisions regarding their CSR Investments. If certain types of funds significantly improve net profit margins, Companies can optimize ther CSR budgets to maximize both social effect and financial returns.
ii. Implications for Investors and shareholders? Investors are increasingly interested in sustainable and responsible Investments. This study will provide insights into whether CSR expenditures enhance financial performance, thereby influencing Investment decisions. It will help investors understand whether CSR spending contributes to profitability or represents an additional cost without financial returns.
iii. Policy and Regulatory Implications: Policymakers and regulatory bodies in Nigeria can use the findings to develop more effective CSR policies for the oil and gas sector. If funds for training, infrastructure, or associations significantly affect profitability, regulators might encourage specific CSR initiatives to foster industry-wide Financial and social benefits.
iv. Contribution to Academic knowledge: This study will enrich academic literature by providing empirical evidence on how CSR affects financial performance in Nigeria's oil and gas sectors. It will also highlight whether Certain CSR Categories (e.g., Health, Education or Infrastructure) yield better financial returns, contributing to discussions on CSR effectiveness in developing economies.
v. Societal and Economic Impact: By analysing CSP's effect on profitability, this study can guide firms in aligning their social contributions with sustainable business growth. If CSR positively influences financial performance, companies may be encouraged to invest more in Community development, ultimately benefiting local economies, social welfare, and national economic growth.

Scope of the study

This research examines the effect of corporate social responsibility on financial performance of listed oil and gas firm in Nigeria.

The scope of this study is shown below

i. Sample size scope: This study focus on Five (5) listed oil and gas firms on the Nigerian Exchange Group (NGX). The firms are selected based on availability of financial and corporate social responsibility data, consistency in operation, and relevance to the sector.

ii. Geographic coverage scope: This study is geographically limited to Nigeria, as it focuses on Nigerian oil and gas firms listed on the Nigerian Exchange group (NGX). It does not extend to firms outside Nigeria or unlisted firms operating within the country.

iii. Period coverage scope: This research covers a 10 years period from 2014 to 2023. This period is chosen to provide a recent and sufficient timeframe for analyzing trends in CSR practices and their effects on financial performance.

iv. Area coverage scope: This study focuses on specific areas of CSR, measured through: Funds for human training, health, and education, Funds for infrastructure and development, and Funds for association. Financial performance is assessed based solely on net profit margin, emphasizing the direct impact of CSR investments on profitability.

v. Content Scope: This study examine the effect of corporate social responsibility on financial performance, with a focus on whether and how CSR initiative contribute to improved financial outcomes. The analysis relies on secondary data from annual reports and financial statements.

vi. Sectoral scope: The research is sector-specific, focusing solely on the oil and gas industry in Nigeria. It excludes other sectors such as banking, telecommunications, or manufacturing.

Limitations of the study.

This study is constrained by a lack of available secondary data. Nevertheless, the researcher successfully overcomes this obstacle by gathering information's from fact books, annual report, and accent of selected oil and gas firms spanning multiple years. The researcher classified the proxy for independent variable of corporate social responsibility into three namely; funds for human training, health and education, funds for infrastructure and development, funds for associations. This approach was employed to scrutinize the formulated hypotheses, ensuring that the integrity and reliability of the findings remain unaffected.

Other forms of limitations are seen below;

i. General limitations

While this study focuses on listed oil and gas firms in Nigeria, this scope was deliberately selected to ensure consistency in financial reporting and CSR disclosure practices. However, by concentrating on this group, the findings may not automatically apply to private firms in other sectors. Still, this focused approach enhances the relevance and reliability of the results within the Nigeria oil and gas industry.

ii. Policy Implementation Inconsistency Limitations

CSR practices in Nigeria are often influenced by changing government policies and weak enforcement frameworks. This study recognizes that some firms may respond differently to such policy environments. However, the research controls for this by focusing on listed firms that are more likely to adhere to reporting standards and regulatory expectations, thereby ensuring more consistent CSR data.

iii. Measurement Treatment Limitations

The study uses specific measurable proxies for CSR- funds for human training health and education, funds for infrastructure and development, funds for associations. Although CSR is broad and may include non-financial elements, these proxies were group because they represent tangible, reportable commitments that are typically disclosed in annual reports. Likewise, using net profit margin as the sole indicator of financial performance allows for focused analysis of profitability in relation to CSR spending, which aligns with the study`s objectives.

iv. Sample size limitations

The number of listed oil and gas firms in Nigeria is relatively small. This is not a weakness but a reflection of the actual structure of the industry. By including the majority of such firms that meet the criteria for data availability, the study ensures a comprehensive coverage within the targeted population, even if the overall sample size appears modest.

v. Data Availability and Reliability limitations

While some CSR and financial data may not be uniformly reported across all firms and years, the study draws data from audited annual reports and publicly available financial statements, which are among the most reliable sources. Any gaps in data were handled with care to preserve the integrity of the analysis, without compromising the research objectives.

LITERATURE REVIEW

Theoretical Framework

Stakeholder Theory

Originally proposed by R. Edward freeman in 1984, emphasizes that a firm's success is not solely determined by the maximization of shareholder wealth, but by the ability to manage and balance the interests of all its stakeholders. Stakeholders are individuals or groups who can affect or are affected by firms operations. These include shareholders, employees, customers, suppliers, Communities, governments, and even non-governmental organizations. In the Context of Corporate social responsibility CRS, stakeholder theory suggests that organizations have an ethical obligation to consider and respond to the interests of these diverse groups. This is particularly crucial for oil and gas firms in Nigeria, where operations significantly impact host communities and the environment. For listed oil and gas companies in Nigeria CSR initiatives such as:

i. Funds for human training, health, and education represent investment in employees and local communities, entrancing story shills, wellbeing, and long-term human capital development.

ii. Funds for infrastructure and development reflect the firm's Contribution to improving the quality of life in host communities through roads, water supply, electricity, and healthcare, facilities.

iii. Funds for Associations demonstrate support for professionally, Community or industry groups that foster collaboration and social cohesion.

These investments directly address stakeholder needs and Concerns - By doing so, companies can achieve several outcomes

(i) Enhanced reputation and corporate Image; leading to greater brand, loyalty and Consumer trust
(ii) Improved employee morale and retention; as workers feel valued and supported
(iii) Reduced operational risks, especially in regions prone to Community unrest or conflict due to perceived neglect or environmental degradation.
(iv) Greater stakeholder engagement, which can lead to a more stable business environment and better regulatory support.

When firms manage stakeholder relationship effectively through CSR, they may benefit from a competitive advantage that positively influences financial performance, which in this study is measured by net profit margin. Thus, Stakeholder theory provides a strong justification for linking CSR activities to improved financial outcome-

Legitimacy Theory

Legitimacy theory is based on the idea that businesses operate within a broader social framework, and their survival depends on maintaining legitimacy in the eyes of society. The theory posits that there is a "social contract between a company and the society in which it operates, and that the Company must act in a manner that is perceived as accept-able and appropriate according to societal norms, value and expect and appropriate according to societal norms, Value and expectations. In essence, legitimacy is a resource just like capital or labor that Companies need to operate effectively. When legitimacy is last or questioned, companies may face public Criticism, protests, loss of customers, legal challenges, or even the withdrawal of licenses and Contracts. In the Nigerian oil and gas sector legitimacy is especially critical due to:

(i) The environmental degradation and pollution caused by oil exploration and drilling
(ii) Conflicts with host communities over resource control and perceived exploitation.
(iii) Scrutiny from Local and international stakeholders, including governments, NGOs, and Civil society.

CSR activities become a strategic tool to secure and maintain legitimacy. By allocating:

- Funds for human in training, health and Education companies invest in the long-term empowerment of the people, aligning with societal expectations for sustainable development.

- Funds for infrastructure and development, companies address visible Community needs like roads, healthcare, electricity and clean water, which directly improve living conditions and reflect positively on the Firm.
- Funds for Associations, companies support social, cultural, or industry groups that reinforce their connection to the Community and contribute to public goodwill.

These action, demonstrate that the company is accountable, responsible and aligned with the Values of the society, thus strengthening its legitimacy.

Social Contract Theory.

Social Contract theory is rooted in political philosophy, historically associated with thinkers like Thomas Hobbes, john Locke and jean-Jacques Rousseau. In the context of business and corporate behavior the implicit contract between Companies and society. It suggests that organizations exist and operate because Society grants them the rights to do so in exchange, businesses are expected to contribute positively to the social good. The social contract is unwritten and dynamic. It evolves with Changing violates this contract (e.g, by harming the environment or ignoring social needs), it risks losing public trust, stakeholder support, and its social license to operate. In the oil and gas sector in Nigeria, the social Contract is particularly critical due to the historical tension between multinational firms and local communities. Issue such as oil spills, environmental degradation, poor infrastructure, unemployment and Community underdevelopment have created a fragile relationship between firms and the society they operate in. To uphold the social contract, companies engage in corporate social responsibility (CSR) as a form of reciprocity giving back to se society in return for the right to extract and profit from national resources. In this study, CSR initiatives can be broken down into:

(i) Funds for human training, health, and education: These reflect investment in social capital, empowering individuals and communities through knowledge, shill acquisition, and improved well-being
(ii) Funds for infrastructure and development: These projects-such as building schools, roads, hospitals, and water facilities-fulfill the basic needs of host communities, helping to bridge development gaps.
(iii) Funds for associations: supporting local associations, Cooperatives or industry-related organizations fosters community involvement and strengthens institutional relationships.

By fulfilling these obligations companies sustain their social legitimacy reduce tension with host communities, and demonstrate that they are responsible corporate citizens.

Empirical Review

The empirical investigation of the relationship between Corporate Social Responsibility (CSR) and financial performance has generated increasing attention globally, especially in emending economies like Nigeria. The oil and gas sector, being one of the most visible and environmentally sensitive industries, is practices due to the social and environmental Consequences of its operations.

In Nigeria, several empirical studies have been conducted to assess the impact of CSR activities on the financial outcomes of listed oil and gas firms.

Olayiwola and Adebayo (2018) carried out a study to evaluate the extent of CSR disclosure among oil and gas firm listed on the Nigerian Stock exchange. Using multiple regression analysis, they investigated the relationship between CSR disclosure and Return on Assets (ROA). Their findings revealed a positive but statistically insignificant relationship, indicating that while CSR initiatives may contribute to a firm's goodwill and societal acceptance, they do not necessarily lead to immediate financial gains. They attributed this to a weak enforcement of regulatory standards and lack of stakeholder pressure in the Nigeria Context.

Amahalu and Okudo (2023) Investigated the effect of donations (a proxy for CSR) on financial performance indicators such as net profit margin (NPM), return on Assets (ROA), and Return on Equity (ROE) of quoted oil and gas firms in Nigeria from 2009 to 2021 The study employed an ex-post facto research design and found that donations had a significant positive effect on NPM and ROA, suggesting that CSR activities enhance profitability.

Clifford Obiyo Ofurum; Dr. Obo-Sam Ngoke (2022) Examined the relationship between CSR in expenditure and financial performance of listed oil and gas companies in Nigeria between 2011 and 2020. Using regression analysis, the study revealed that economic, donation, and legal responsibilities has a non-significant influence on ROA and ROE, indicating that CSR activities did not significantly contribute to profitability during the period under review.

Muhammad Isa Dattijo; Josephine Ene; Saheed A. Lateef (2024) analyzed the impact of CSR expenditure and disclosure on financial performance metrics like Net Profit Margin (NPM) and ROA for oil and gas firms in Nigeria from 2018 to 2023. The study found that both CSR expenditure and disclosure had a significant positive effect on NPM and ROA, concluding that CSR plays a crucial role in enhancing financial performance.

Ogunbiyi-Davies and Adegbie (2024) Investigated how CSR. affects the financial performance of listed oil and gas companies in Nigeria. The research Concluded that CSR had a significant Impact on financial performance, suggesting that increased social responsibility measures, if well implemented, could benefit the Companies financially.

Bariweni (2024) explored the relationship between CSR and financial performance of quoted oil and gas companies in Nigeria. The study concluded that CSR plays a significant positive rule in improving financial performance and recommended that management should integrate CSR into their policy statement backed by effective budgeting.

Ibida and Emeka-Mwokozi (2019) measured the effect of CSR on financial performance of oil and gas companies in Nigeria from 2006 to 2015. The study focused on ethical, economic, and legal responsibility as proxies for CSR and found that these had a significant positive effect on financial performance indicators.

Ehioghiren and Eneh (2019) Investigated CSR accounting and financial performance of insurance companies in Nigeria from 2007 to 2016. The study found a positive and significant relationship between CSR accounting and financial performance, suggesting that CSR activities enhance profitability in the insurance sector.

Conversely Ahmed and Musa (2021) focused specifically on environmental CSR practice and their short-term financial implications. Using time series data and correlation analysis, they found that firms investing heavily in environmental protection initiatives, such as oil spill clean-up and gas flaring reduction often experienced decreased short-term profitability. However, they argued that these investments were essential for long-term sustainability and risk mitigation. The study highlights the tension between immediate financial returns and long-term strategic CSR goals.

Adelakun and Adeoye (2023) adopted a structural equation modeling (SEM) approach to assess the direct and indirect effects of CSR on financial performance. Their study found that CSR Significantly influence brand equity and customer loyalty, which in turn improve firm profitability and market performance. To argued that CSR is not only a c a cost but also on intangible asset that entrance firm Value when properly managed.

Furthermore, Uchenna and Obasi (2020) assessed the impact of CSR On financial performance using a mixed-methods approach. Their qualitative analysis revealed a significant positive relationship between CSR and bath ROA and ROR, while qualitative interviews highlighted stakeholder trust, employee morale and Community relations as key non-financial benefit that Contribute indirectly to financial success.

More recently, Ibrahim and Oladimeji (2024) investigated the evolving trends in CSR investments post-CoVID-12. Their study highlighted a shift in CSR focus towards health, education and digital infrastructure, with firms that adopted quickly to societal needs during the pandemic enjoying enhance market reputation and improved investor relationship between adoptive CSR strategies and financial performance.

Gap in literature

Although numerous empirical studies have examined the relationship between corporate social Responsibility (CSR) and financial performance in Nigeria`s oil and gas sector, significant gabs remain in terms of specific CSR dimensions and firm- level disaggregation most existing research tends to:

Use aggregated CSR measures such as total CSR expenditure or generalized disclosures (e.g Amahulu and Okudo, 2023; dattijo et al; 2024), without disaggregating the impact of specific CSR components like human capital development or infrastructure spending. Secondarily, lack sector-specific granularity: while a few studies (e.g, Bariweni, 2024; Udo and Emeka, 2023) look into oil and gas firms, they do not explicitly analyze the effect of individual CSR element (like funds allocated to associations or health and education) on firm profitability. Thirdly, focus primarily on broad financial indicators like ROA or ROE, with fewer studies directly linking CSR to Net Profit

Margin (NPM). A measure more sensitive to operational performance and cost-effectiveness. Companies often overlook the role of CSR in social investment categories, such as:

- Funds for human training, health and education (critical for long term workforce efficiency)
- Funds for infrastructure and community development (important for stakeholder relations in host communities)
- Support to associations and NGOs (which may influence brand image or social license to operate)

Identified Research Gap

There is a lack of empirical evidence on how disaggregated CSR components particularly funds allocated to human training, health and education, infrastructure and development, and support for association effect the net profit margin of listed oil and gas firms in Nigeria. This gap presents an opportunity to contribute to the literatures by providing a granular analysis of CSR spending categories; using Net Profit Margin as a dependent variable to reflect operational profitability; and focusing on a specific sector (oil and gas) where CSR is critical due to environmental and community pressures.

METHODOLOGY

Research Design

To carry-out an examination of the effect of corporate social responsibility on financial performance of listed oil and gas firm in Nigeria, the study deployed ex-post facto research design. This design was chosen for the study because of two reasons: it enables researchers test for a possible relationship between two or more variables; and it uses data that are extracted from historical occurrence to draw a conclusion. That is to say, the researcher has no power to influence the data as they have already taken place some time ago. In this scenario, the findings are deemed to be more reliable and less distorted.

Population of the study

The population of this study comprises all oil and gas firms listed on the Nigerian Exchange Group (NGX) for the period of 2014 to 2023. These firms operate in the upstream, midstream and downstream sectors of the petroleum industry and are involved in activities such as exploration, refining, distribution and marketing of petroleum products.

Given that the Nigerian oil and gas sector play a critical role in the economy, listed companies within this industry are expected to uphold significant level of corporate social responsibility due to environmental and social impact of their operations. Therefore, these firms servers as an idea population for assessing the relationship between Corporate Social Responsibility and financial performance. As at 2023, there are 9 oil and gas companies listed on the NGX. These companies form the target population of this research study. And they are identified as follows:

Table 3.3.1 population of the study

1. Capital Oil PLC
2. Conoil PLC
3. Eterna PLC
4. Japaul PLC
5. MRS Oil Nigeria PLC
6. Oando PLC
7. Aradel Holdings PLC (NDEP)
8. Seplat Energy PLC (Petroleum Development company)
9. Total energies, marketing Nigeria PLC
10. Nigeria Exchange group (2024)

Sample Size and Sampling Technique

The selection of firms for the sample size was based on complete data availability. In this study, specifically five (5) out of available nine (9) firms were selected due to data availability. The annual report of these five selected oil and gas companies were collected for variable computation and analysis, spanning from the financial year 2014 to 2023. The selected oil and gas companies in Nigeria include Eterna PLC, MRS Oil Nigeria PLC, Aradel holding PLC (NDEP), Conoil PLC, and Seplat Energy PLC.

Instrument for Data Collection

This data utilizes secondary data obtained exclusively from the Audited Annual Reports of listed oil and gas firms in Nigeria. These reports are publicly available on the official websites of the respective companies and Nigeria Exchange Group (NGX). The data covered ten (10) periods (2014 to 2023) to observe trends and consistency over time. The collected data from this statement encompassed metrics such as Funds for human training, Health and education, Funds for Infrastructure and Development, Funds for Associations.

Validity and Reliability of the Instrument

To ensure the accuracy and appropriateness of this instrument for this study, the following types of validity were considered.

Validity

i. Content validity:

The data collection instrument was developed based on a thorough review of existing literature on corporate social responsibility (CSR) and financial performance particularly within an oil and gas sector. The dependent variable Funds allocated to human training, Health and Education; Infrastructures and Development; and Association are core components of CSR activities commonly reported in firms Annual Reports. The dependent variable, Net Profit Margin is the standard measure of financial performance recognized in financial accounting and management.

ii. Construct Validity:

Each variable in the instrument were clearly defined and aligned with it theoretical concepts. For example,

- Funds for human training, health and education refers to the monetary value disclosed in the annual report for employee development, health initiative scholarships, etc.
- Funds for infrastructure and development includes spending on roads, water projects, electricity, and similar community- based infrastructure projects.
- Funds for Association refers to financial contributions or donations made to industry association, trade union or community organizations. These collection were measured directly from line items or narrative disclosures in the audited annual reports, ensuring alignment with the actual practice of the firms.

iii. Face validity:

The instrument was review by academic superiors and subject matter expects in accounting and corporate governance to confirm that it accurately captures the concepts it is intended to measure.

Reliability

To ensure the instrument consistently captures accurate data over time and across different firms, the following reliability measures were applied.

Standardized Data collected Template:

A structure data extracted sheet was used to maintain consistency in recording figures for each firm across the selected years. This minimized variation and ensured uniform interpretation of each CSR spending category.

Consistency of source:

All data were extracted from audited annual report which are prepared in compliance with international financial reporting standards (IFRS) and are considered reliable sources of financial and non-financial information.

Inter-coder reliability

To avoid subjectivity in interpreting CSR related spending, especially when embedded in narrative disclosures, two independent coders engaged. Data points were cross-checked and reconciled to ensure consistency and minimize errors.

Pilot testing

The instrument was tested on a small sample of annual reports from oil and gas firm not included in the main analysis. This helped refine the definition and improved clarity in the categorization expenditures.

Method of Data Collection

For this study the researcher employed a secondary data collection, specifically, relying on the information gather from annual report. These secondary data sources were utilized exclusively, enabling the researcher to compute both the independent and dependent variables. This data were extracted from five (5) oil and gas companies operating in Nigeria. A ten-year period, spanning from 2014 to 2023, was considered for the analysis and examination of the relevant variables.

Method of Data Analysis

The collected secondary data was coded into the statistical software E-View version 11. This software was employed to perform a descriptive analysis of the data using statistical measures such as mean, maximum value, minimum value, and standard deviation. The mean was adopted as a central tendency measure to ascertain the average value of the collected data, while the standard deviation served as a measure of dispersion, revealing the extent to which the data deviated from mean. To test the hypotheses, ordinary least square regression analysis was conducted at a 5% significant level. The choice of ordinary least square regression technique is well-justified due to its widespread in analyzing relationship between variables. This technique is particularly effective in identifying potential cause and effect association between two variables, making it a suitable approach for testing the hypothesis that aims to explore the effect of corporate social responsibility on financial performance. By employing this technique, the study endeavor to unveil any patterns or trends that may exist between the variables under investigation, thereby adding substantial value to the study conclusions.

Model Specification

This study investigated the effect of corporate social responsibility (CSR) on financial performance of listed oil and gas firm in Nigeria. The dependent variable, financial performance, is proxies by Net profit margin (NPM). The independent variable, CSR is operational using the following proxies:

- FHHE = Funds for human training, Heath, and Education
- FID = funds for Infrastructures and Development
- FA = funds for Associations

Then my linear regression model can be specified as:

NPM = F(FHHE, FID, FA)……………………….equ(i)

For better estimation, a multiple econometric model was develop from equ(i) as follows

$$NPM_{it} = \beta_0 + \beta_1 FHHE_{it} + \beta_2 FID_{it} + \beta_3 FA_{it} + £it \text{……….……… equ (ii)}$$

Where:

- i denotes the firm
- t denotes the time (year)
- β_0 = Intercept
- β_1 = coefficient of the independent variable
- £it = Error term

Measurement of variables

In this study, corporate social responsibility is the independent variable and is represented by funds for human training, health and education, funds for infrastructure and development, funds for Association. On the other hand, financial performance is the dependent variable which is represented by Net profit margin. Table 3.2 gives the operational measurement of the variables used in the study.

Table 3.2 Operational Measurement of Variables:

Variables	Types of variables	Description and Measurement
1. Net profit margin	Dependent	Net profit divided by total Revenue, expresses as a percentage: NPM= Net profitt ÷ Revenue × 100 Fresh Books, an accounting platform
2. Funds for human training, health and education	Independent	Total annual fund by the firm on human training, health and education. Measured in naira (₦) Source annual report 2014-2023
3. Funds for infrastructure and development	independent	Total annual fund on CSR related infrastructure and development. Measured in naira (₦) Source annual report 2014-2023
4. Funds for Association	independent	Total annual funds on Association. Measured in naira (₦)

Source annual report 2014-2023

Decision Rule

Where the calculated T-S tat value is greater than or equal to (≥)z, it signifies that the independent variable has an effect on the dependent variable. The result is significant where the calculated probability value is less than or equal to (≤) 0.05 at 5% level of significance. Therefore, where the analyzed result is significant, we accept the alternative hypothesis which signifies that the specific independent variable of the hypothesis has a significant effect on the financial performance of listed oil and gas firms in Nigeria. Where otherwise, the analyzed result is insignificant; we reject the alternative hypothesis and accept the Null hypothesis which signifies that the specific independent variable of the hypothesis has no significant effect on the financial performance of listed oil and gas firms in Nigeria.

DATA PRESENTATION AND ANALYSIS

Presentation and Descriptive Analysis of Data

Table 4.2.1 shows the data on funds for human training, Health and Education.

Table 4.2.1: Presentation of Data on funds for human training, health and education (₦)

Firm/Year	Conoil Plc	Eterna Plc	MRS Oil	Seplat Plc	Aradel plc
2014	0	750,000	1,721,500	0	50,073,250
2015	0	1,000,000	1,523,500	3,000,000	111,200,000
2016	0	1,774,000	768,000	41,836,000	57,600,000
2017	0	0	5655687	901,000	0
2018	0	1,400,000	1,598,792	61,290,000	0
2019	1000,000	5,858,000	1,210,000	135,066,000	74,000,000
2020	0	16,000,000	45,900,000	133,865,049	227,400,000
2021	3,000,000	500,000	29,000,000	140,088,000	102,000,000
2022	4,000,000	10,618,000	200,000	119,235,665	74,800,000
2023	6,000,000	0	250,000	108,109,183	0

Source: Researcher`s Computation (2025)

A trend analysis of funds allocated to human training, health, and education from 2014 to 2023 reveals notable variations among the five firms. In 2014, Aradel Plc had the highest allocation (₦50,073,250), while Conoil and Seplat reported no spending. In 2015, Aradel again led with ₦111,200,000 while conoil had no allocation. In 2016, Seplat took the lead with ₦41,836,000 and Conoil again spent nothing. 2017 saw MRS oil with the highest spending (₦5,655,687), while both conoil and Aradel reported zero allocations. In 2018, Seplat allocated the most (₦61,290,000), and Aradel again spend nothing. The trend continued in 2019, with Seplat allocating ₦135,066,000- the highest- while Mrs oil spent the least (₦1,210,000). In 2020, Aradel recorded the highest CSR allocation at ₦227,400,000, while Conoil spent nothing. For 2021, Seplat led with ₦140,088,000, and Eterna had the lowest allocation (₦500,000). In 2022, Seplat remained the highest spender with ₦119,235,665, while MRS oil allocated the least (₦200,000). Finally, in 2023, Seplat again had the highest allocation (₦108,109,183), and Eterna reported no spending. Overall, Seplat consistently emerged as the top spender in most years, while Conoil, Eterna and Aradel alternated as the lowest depending on the year.

Table 4.2.2: Presentation of Data on Funds for Infrastructures and Development (₦)

Firm/Year	Conoil plc	Eterna plc	MRS oil	Seplat Plc	Aradel
2014	0	0	0	0	15,774,463
2015	0	0	0	0	64,748,000
2016	148,000,000	350,000	0	0	606,400,000
2017	10,000,000	100,000	3,833,876	0	0
2018	10,000,000	100,000	0	0	700,000,000
2019	69,200,000	0	0	0	6,400,000
2020	67,500,000	0	150,000	0	297,900,000
2021	65,000,000	5000,000	1,000,000	0	0
2022	7,000,000	0	0	0	181,100,000
2023	20,000,000	0	0	0	0

Source: Researcher`s Computation (2025)

A trend analysis of Funds allocated to infrastructures and development from 2014 to 2023 shows that Aradel Plc was consistently the highest spender in several year. In 2014, Aradel was the only firm with spending (₦ 15,774,463), making it both the highest and lowest. In 2015, Aradel again led with ₦64,748,000, while all other firms recorded zero. In 2016, Aradel had the highest allocation at ₦606,400,000, while MRS oil and Seplat had no spending. In 2017, MRS oil led with ₦3,833,876, and Seplat and Aradel recorded zero. In 2018, saw Aradel again as the highest spender (₦700,000,000), while Mrs oil spent nothing. In 2019, Conoil led with ₦69,200,000, while Mrs oil and Seplat recorded no spending. In 2020, saw Aradel spending ₦297,900,000- the highest- while Eterna had no allocation. In 2021, Conoil had the highest with ₦65,000,000, and Aradel and Seplat spent nothing. In 2022, Aradel again topped the list with ₦181,100,000, while Eterna, Mrs oil and Seplat recorded zero. In 2023, Conoil was the highest with ₦20,000,000 and all other firm spent nothing. Overall, Aradel Plc consistently emerged as the highest spender, especially in the earlier and middle years, while Seplat and Mrs oil frequently had the lowest or no spending across the period.

Table 4.2.3: Presentation of Data on Funds for Association (₦)

Firm/Year	Conoil Plc	Eterna Plc	MRS oil	Seplat Plc	Aradel Plc
2014	0	2,050,000	568,000	25,488,236	700,000
2015	0	2,400,000	3,850,000	38,000,000	15,950,000
2016	0	1,200,000	0	115,300,000	12,100,000
2017	0	15,067,000	200,000	104,460,000	0
2018	0	3,350,000	2,579,750	603,930,000	57,000,000
2019	250,000	2,750,000	500,000	72,525,003	59,400,000
2020	500,000	1,800,000	4,150,000	24,304,783	2,500,000
2021	0	0	6,485,000	27,181,305	0
2022	20,000,000	0	44,000	29,887,893	57,400,000
2023	0	107,197,000	99,000	283,947,417	0

Source: Researcher`s Computation (2025)

A trend analysis of funds allocated to associations from 2014 to 2023 reveals significant yearly variations across the firms. In 2014, Seplat had the highest allocation (₦25,488,236), while Conoil spent nothing. In 2015, Seplat again led with ₦38,000,000 and Conoil recorded zero. For 2016, Seplat remained the top spender with ₦115,300,000 and Mrs oil reported no spending. In 2017, Seplat led again (₦104,460,000), while Conoil and Aradel recorded zero. 2018 saw a substantial increase with Seplat allocated ₦603,930,000- and Conoil again spending nothing. In 2019, Seplat led with ₦72,525,003 and Mrs oil had the lowest at ₦500,000. In 2020, Seplat allocated ₦24,304,783- the highest- while Aradel had the lowest (₦2,500,000). In 2021, Seplat again topped the chart (₦27,181,305), with Conoil, Eterna, and Aradel spending nothing. In 2022, Aradel was the highest spender with ₦57,400,000, while Eterna spent nothing. Finally, in 2023, Seplat had the highest allocation (₦283,947,417), and Conoil and Aradel both recorded zero. Throughout the period Seplat consistently recorded the highest allocations specially between 2014 and 2021, while Conoil was frequently the lowest or had no spending in most years.

Table 4.2.4: Presentation of Data on Net Profit Margin (in percent)

Firm/Year	Conoil Plc	Eterna Plc	MRS Oil	Seplat Plc	Aradel Plc
2014	0.65	1.52	0.81	35.90	62.86
2015	2.78	1.36	1.07	12.08	12.39
2016	3.34	1.38	1.34	-47,77	49.93
2017	1.37	1.16	1.29	75.53	72.51
2018	1.47	0.45	-1.41	22.88	95.83
2019	1.47	-0.06	-2.63	39.70	42.42
2020	1.28	1.73	-5.39	-16.11	51.63
2021	4.22	-1.31	0.47	16.65	51.63
2022	3.77	0.87	1.31	11.00	57.02
2023	4.90	-5.15	2.22	11.67	10.85

Source: Researcher`s Computation (2025)

A trend analysis of Net Profit Margin (NPM) from 2014 to 2023 shows that Aradel Plc consistently recorded the highest margins in most years, indicating strong financial performance. In 2014, Aradel had the highest NPM at 62.86%, while Conoil had the lowest had the lowest at 0.65%. in 2015, Aradel again led with 12.39%, and, MRS had the lowest 1.07%. In 2016, Aradel retained the highest margin at 49.93%, while Seplat had a negative margin of -47.77%, making it the lowest. 2017 saw Seplat take the lead with a peak margin of 75.53%, while Eterna had the lowest at 1.16%. In 2018, Aradel again topped with a very strong 95.83%, and Mrs oil had the again highest with 51.63% and Seplat had the lowest at -16.11%. 2021 showed Aradel still leading with 51.63%, while Eterna reported -1.31%, the lowest. In 2022, Aradel recorded the highest NPM of 57.02%, and Eterna was again the lowest at 0.87%. Finally, in 2023, Aradel had the highest NPM at 10.85%, while Eterna had the lowest at -5.15%. Overall, Aradel Plc dominated as the top performer in most years, while Eterna and Mrs oil frequently had the lowest or even negative margins.

Descriptive Statistical Analysis of the Data

Table 4.2.5 below shows the descriptive analysis of variables.

Table 4.2.5: Descriptive Statistical Analysis

	NPM	FHHE	FID	FA
Mean	13.89780	31603833	45591127	34116688
Median	1.625000	1747750	0.000000	2450000
Maximum	95.83000	227400000	700000000	603930000
Minimum	-47.77000	0.000000	0.000000	0.000000
Std. Dev.	26.48420	51923527	136724129	95170136
Stewness	1.170746	1.801554	3.813451	4.802372
Kurtosis	4.397713	5.804005	17.10151	27.78557
Jarque-Bera	15.49206	43.42674	535.4631	1472.032
Probability	0.000432	0.000000	0.000000	0.000000
Sum	694.8900	1580191626	2279556339	1705834387
Sum Sq. Dev	34369.22	1.32E+17	9.16E+17	4.44E+17
Observations	50	50	50	50

Source: Eviews 10 Statistical Software (2025)

The descriptive statistics for Net Profit Margin (NPM) in Table 4.5 reveal a mean value of 13.90%, indicating that, on average, the sampled oil and gas firm recorded a modest positive profitability over the study period. The maximum NPM of 95.83% shows that at least one firm had exceptionally high profitability in a given year, while the minimum of -47.77% indicates a significant loss by another in a different year. The standard deviation of 26.48% suggests considerable variability in profit margins across the firms and years, reflecting inconsistent financial performance within the industry. The positive skewness (1.17) implies that more firms had profit margins clustered at the lower end, with a few firms recording exceptionally high margins. The kurtosis value of 4.40, which is higher than the normal distribution value of 3, suggests that the NPM distribution is leptokurtic-characterized by a higher peak and heavier tails. Finally, the jarque-Bera probability value (0.000432) is below 0.05, indicating that the distribution of NPM significantly deviate from normality.

For funds for human training, health, and Education (FHHE), table 4.2.5 shows a means of ₦31.60 million, suggesting a moderate average CSR investment in human capital across the selected firms. However, the maximum spending reached ₦227.4 million value. The standard deviation of ₦51.92 million indicates high variation in spending patterns, pointing to inconsistent CSR priorities among firms. The positive skewness (1.80) implies that while most firms invested relatively low amounts, a few allocated disproportionately high funds. The kurtosis value of 5.80 confirms a leptokurtic distribution with more outliers and sharper peaks, and the jarque-bera probability of 0.000000 confirms the distribution is not normal

Regarding Funds for Infrastructures and Development (FID), table 4.2.5 reveals a mean value of ₦45.59 million, indicating that firms on average invested a substantial amount in infrastructure-related CSR activities. The maximum value of ₦700 million highlights a significant one-time investment by a firm, whereas the minimum value of zero indicates no expenditure in certain periods or by specific firms. The standard deviation is high at ₦135.72 million, reflecting a wide spread and inconsistent investment levels. The data is highly positively skewed (3.81), showing that the majority of values are clustered at the lower end, with a few extremely high values skewing the distribution. The very high kurtosis (17.10) indicates the presence of extreme outliers, and the jarque-Bare p-value of 0.000000 confirms the data is not normally distributed.

For Funds for Association (FA), the mean spending is ₦34.12 million, indicating that firms devoted a modest average amount to contributions or donations to associations. However, the maximum spending spikes to ₦603.93 million, showing that one or more firms made very large allocations in specific years, while some years recorded zero (minimum value). The standard deviation of ₦95.17 million indicates a high level of fluctuation in the category. The data is extremely positive skewed (4.80), suggesting more firm contributed minimally, while a few made exceptionally large payments. Additionally, the kurtosis of 27.79 indicates a very peaked distribution with heavy tails, signifying the presence of extreme values. The Jarque-Bera probability of 0.000000 confirms a statistically significant deviation from normality.

Hypotheses Testing

Table 4.3.1 below shows the result of ordinary least square regression used in testing the hypotheses.

Table 4.3.1: ordinary least square regression analysis

Dependent Variable: NPM
Method: least squares
Date: 20/07/25
Sample: 150
Included observations: 50

Variable	Coefficient	Std.Error	t-statistic	Probability
FHHE	0.00000008	0.00000006	1.292355	0.2027
FID	0.00000009	0.00000002	4.144327	0.0001
FA	0.00000002	0.00000003	0.629825	0.5319
C	6.022754	3.902445	1.543328	0.1296

R-squared	0.321590	Mean dependent var	13.89780
Adjusted R-squared	0.277345	S.D. dependent var	26.48420
S.E. of regression	22.51398	Akaike info criterion	9.142768
Sum squared resid	23316.44	Schwarz criterion	9.295730
Log likelihood	-224.5692	Hannan-Quinn criterion	9.201017
F-statistic	7.268519	Durbin-Watson stat	2.251209
Prob (F-statistic)	0.000433		

Source: Eviews 10 Statistical Software (2025)

The results from table 4.3.1, base on the ordinary least square (OLS) regression, show the effect of various categories of Corporate Social Responsibility (CSR) spending on Net profit Margin (NPM) of listed oil and gas firm in Nigeria. Before discussing individual variables, we being with interpretation of the model validity statistics and content term. The adjusted R-squared value of 0.2773 indicates that approximately 27.73% of the variation in the Net Profit Margin is explained by the three independent variables: Funds for human training, health and education (FHHE), Funds for infrastructures and Development (FID), Funds for Association (FA). Although this suggests a modest explanatory power, it is reasonable within social science research, particularly in financial performance studies where many internal factors can influence outcomes. The Prob(F-statistic) = 0.000433 is statistically significant at the 5% level, indicating that overall regression model is valid and that, collectively, independent variable have statistically significant joint effect on NPM. The Durbin-Watson statistic of 2.25 is close to the ideal value of 2, suggesting that there is no significant autocorrelation in the residuals- thus, the regression result are not distorted by serial correlation. The constant term (C=6.022754, p=0.1296), although not statistically significant at the 5% level, suggests that in the absence of CSR spending (i.e, when all independent variable are zero), the baseline Net Profit Margin of these firms would be approximately 6.02%

Hypothesis One

1. Ho: Funds for Human training, Health and Education have no significant effect on net profit margin of listed oil and gas firms in Nigeria.

The coefficient for FHHE is 0.00000008, meaning that for every additional ₦1 invested in human training, health, and education, the Net Profit Margin increases marginally by 0.00000008 percentage points. While this suggests a positive effect, the p- value of 0.2027 is greater than 0.05, implying that the effect is not statistically significant at the 5% level. Hence, there a sufficient evidence to accept the null hypothesis. Hence, the null hypothesis is accepted since the p- value is greater than 0.05. We conclude that funds allocated to human training, health and education do not have a statistically significant effect on the Net Profit Margin of listed oil and gas firms in Nigeria.

Hypothesis two

2. Ho: funds for Infrastructures and Development have a significant effect on net profit margin of listed oil and gas firms in Nigeria.

The coefficient for FID is 0.00000009, indicating that for every ₦1 increase in spending on infrastructure and development, Net Profit Margin increase by 0.00000009 percentage points. This shows a positive marginal effect, suggesting that CSR investments in infrastructure and development are associated with higher profitability. More importantly, the p-value of 0.0001 is highly significant at the 5% level, providing strong statistical evidence to reject the null hypothesis. Since the p-value is less than 0.05, we accept the alternate hypothesis. We conclude that Funds allocated to infrastructures and developments have a statistically significant positive effect on the Net Profit Margin of listed oil and gas firm in Nigeria.

Hypothesis Three

3. HO: funds for Association have no significant effect on net profit margin of listed oil and gas firms in Nigeria.

The coefficient for FA is 0.0000002, implying that for every ₦1 increase in contributions to associations, the Net Profit Margin increases by 0.00000002 percentage points. Although this reflects positive effect, the p-value of 0.5319 is well above the 0.05 threshold, indicating that this effect is not statistically significant. Therefore, we accept the null hypothesis, concluding that funds allocated to association have no significant effect on the Net Profit Margin of listed oil and gas firm in Nigeria.

DISCUSSION OF FINDINGS

The finding that funds allocated to human training, health and education have a positive but statistically non-significant effect on Net Profit Margin (NPM) suggests that, although socially valuable, these types of investments do not translate into immediate financial gain for oil and gas firms in Nigeria. One possible explanation is that the outcomes from such expenditures are more long-term and intangible, such as improved employee well-being, public goodwill, or societal development, none of which may be immediately captured in short-term profitability metrics like NPM. Moreover, investments in human capital or health often require time for their benefits such as enhanced workforce productivity or community support- to materialize. Also, in a high-capex and high-risk industry like oil and gas, core financial outcomes may be more directly influence by operational factors than softer CSR initiatives. This result aligns with several empirical studies that highlight the complexities and delayed returns associated with CSR investments in human development. For instance, Onyekachi and Okafor (2020) found that CSR expenditures on education and societal activities had positive effect o investment efficiency but noted that spending on health had a negative effect. Similarly, Adelakun and Adeoye indicators, consistent with the non –significant result here. Furthermore, Ahmed and Musa (2021) reported that community donations (which often include health and education initiatives) had a weak negative effect on earnings per share. Lastly, Ezekwesili and Ezenwoke (2022) found inconsistencies in how firms disclose CSR spending, which could reflect inefficiencies or lack of strategic alignment, thereby contributing to the observed non-significance.

The statistically significant and positive effect of funds for infrastructure and development on NPM indicates that CSR spending in this area can yield tangible financial benefits. Infrastructure projects-such

As road construction, electrification, and simultaneously improve the firms operational efficiency. For example, better access road reduces logistics cost and project delays. In communities with historical tensions, infrastructure spending also acts as a conflict mitigation tool, enhancing operational stability. The significance of this effect suggests that when CSR initiatives align operational goal and community needs, they are more likely to translate into measurable financial performance improvements. This finding is strongly supported by existing literature. Olayiwola and Adebayo (2018) found that CSR activities significantly improved firm's performance, especially when strategically aligned. Solanke et al. (2022) similarly demonstrated that CSR has a significant impact on financial performance. Dattijo et al. (2024) reinforced this with panel regression findings showing a significant positive relationship between CSR donation and profitability metrics, including NPM. Furthermore, Ibrahim and Oladimeji (2024) found that CSR activities significantly enhance financial performance in oil and gas firms, aligning directly with this result. These studies collectively affirm the profitability of infrastructure-focused CSR, as such projects often enhance both community relations and operational continuity.

The funding that funds allocated to associations have a positive but statistically non-significant effect on NPM suggests that such spending may not directly influence the financial outcomes of oil and gas firms. Funds for association often include memberships, sponsorships, or partnership with community and industry groups, which may enhance a firm`s reputation or regulatory compliance but do not necessarily drive core business performance. The non-significance could be due to the symbolic or ceremonial nature of such expenditures or a lack of measurable return on investment. Moreover, in a sector where stakeholders prioritize environmental and infrastructure relates responsibilities, association funding may not be seen as impactful or sufficient to influence community sentiment or customer loyalty. Several empirical studies corroborate this limited effect of symbolic or reputation- based CSR spending. For example, Adelakun and Adeoye (2023) found that CSR had a statistically insignificant effect on key on profitability metrics, similar to this result. Ahmed and Musa (2021) also reported that community-related donations had a weak, negative significance on earnings, implying that not all CSR expenditures yield positive financial returns. Onyekachi and Okafor (2020) further observed that charitable and ceremonial donations had negative or negligible effects on investment efficiency. Lastly, Ezekwesili and Ezenwoke (2022) highlighted inconsistencies in CSR reporting and implementation, especially in non-core areas, suggesting that such expenditures may lack strategic direction, further diminishing their effect. These findings reinforce the idea that while association funding may fulfill social obligations, its financial contribution is limited or indirect at best.

Summary of Findings

Summarily, the study revealed the following findings:

1. Funds for human training, health, and education have a positive but non-significant effect on Net Profit Margin of listed oil and gas firms in Nigeria (β= 0.00000008; p=0.2027).
2. Funds for infrastructure and development have a positive and significant effect on Net Profit Margin of listed oil and gas firms in Nigeria (β= 0.00000009; p=0.0001).
3. Funds for association have a positive but non-significant effect on Net Profit Margin of listed oil and gas firms in Nigeria (β= 0.00000002; p= 0.5319).

Conclusion

The findings of this study imply that while Corporate Social Responsibility (CSR) expenditures are generally associated with an upward movement in Net Profit Margin (NPM), not all categories of CSR spending yield significant financial returns for oil and gas firms in Nigeria. The statistical evidence suggests that among the CSR components examined, only infrastructure and development spending has a meaningful and measurable effect on profitability. This highlights the role of tangible capital-intensive projects in potentially improving operational efficiency, enhancing brand equity, or securing social license to operate, all of which can contribute directly or indirectly to financial performance. The fact that other forms of CSR- such as contributions to human development and associations- showed positive but non-significant effects indicates that their financial benefits may be more indirect, diffuse, or long term in nature, and not easily captured within a single financial metrics like NPM over the short run.

Moreover, the varying statistical significance across the CSR variables underscores the importance of how firms allocate their social investment budgets. The lack of significance for some categories suggests that CSR spending alone does not automatically translate into enhance profitability. Rather, the economic effect of CSR appears to depend on the nature of the investment and perhaps the visibility, scale, or strategic alignment of those activities with core business goals. These findings also reflect the complex interaction between financial performance and social responsibility in sectors like oil and gas, where stakeholder's expectations, regulatory pressures, and operational risks are high. Thus, the results indicate that while CSR can have financial implications, its effects are not uniformly felt across all dimensions, and only certain investments demonstrate a statistically relevant association with firm performance.

Recommendations

1. CSR Department of Oil and Gas Firms should continue investing in human capital development but enhance targeting and monitoring of training, health, and education programs to improve alignment with core business outcomes.
2. The Executive Management should increase funding allocations to infrastructure and development projects, especially those that serve both community and operational needs (e.g, roads, energy access, and water). These investments should be scaled and strategically aligned with business operation to enhance both community goodwill and profitability.
3. Public Affairs and Membership Relations Units should reevaluate contributions to industry associations and community groups to ensure alignment with corporate goals. They should also prioritize memberships that offer measurable business value, such as advocacy support, strategic partnerships, or sectoral influence, and consider reducing funding to low-impact associations.

Suggestion for Further Studies

For further studies, researchers can expand the scope by including more oil and gas firms or examining other sectors such as manufacturing or banking to compare results. Future studies could also explore other measures of financial performance, like return on assets (ROS) or earning per share (EPS), and consider the long-term effects of CSR spending over a longer period. Additionally, using interviews or surveys alongside financial data might reveal more information on how CSR decisions are made and their perceived impact within firms.

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