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Research Article

Corporate Social Responsibility and Profitability of Quoted Oil and Gas Companies in Nigeria: Evidence from Environmental Initiatives, Community Development, and Employee Welfare

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A B S T R A C T

This study investigates the impact of Corporate Social Responsibility (CSR) on the profitability of quoted oil and gas companies in Nigeria for the period 2015 to 2024. Three dimensions of CSR are examined as independent variables, Environmental CSR Initiatives (EE), Community Development and Social Responsibility (CDE), and Employee Welfare and Engagement (EWE), while Return on Assets (ROA) serves as the proxy for firm profitability. The study is anchored on Stakeholder Theory, Legitimacy Theory, and the Resource-Based View (RBV). Adopting an ex-post facto research design, secondary data were extracted from audited and unaudited annual reports and sustainability disclosures of five purposively selected NGX-listed oil and gas companies, covering fifty (50) firm-year observations. Data were analysed using descriptive statistics, Pearson correlation analysis, and multiple regression via STATA 15.0. The regression results revealed that Environmental CSR Initiatives and Employee Welfare and Engagement exert positive and statistically significant effects on ROA, while Community Development and Social Responsibility is positively but insignificantly related to profitability. The study concludes that strategic CSR investments, particularly in environmental stewardship and employee welfare, enhance the financial performance of oil and gas firms in Nigeria, while community-based CSR, though vital, does not produce immediate accounting returns. The study recommends intensified environmental and employee-centred CSR investments, strategically aligned with corporate profitability objectives, and advocates for mandatory CSR disclosures by regulatory authorities.

1. Introduction

Corporate Social Responsibility (CSR) has evolved from a peripheral philanthropic obligation to a core strategic dimension of modern business management. In Nigeria's oil and gas sector, arguably the most economically consequential and environmentally sensitive industry in West Africa, the discourse on CSR has become increasingly urgent. Oil and gas operations generate approximately 90 percent of Nigeria's foreign-exchange earnings, yet they simultaneously bear responsibility for some of the most severe environmental degradation, community displacement, and social tension in the country, particularly across the Niger Delta region (Egbon, 2022; Oti et al., 2018). This dual reality, of economic centrality and social liability, frames CSR not merely as an ethical choice but as a strategic imperative for the sector's sustainability.

Historically, corporations were perceived as self-centred institutions focused solely on profit maximisation, with the responsibility for social development resting largely with governments (Ibrahim et al., 2019).

However, the rise of social activism, evolving stakeholder expectations, and the increasing prominence of Environmental,

Social, and Governance (ESG) investing have fundamentally repositioned CSR as a credible driver of long-term corporate performance (Serafeim, 2020; Carroll, 1999). For quoted oil and gas companies in Nigeria, CSR investments span three principal domains: environmental protection and ecological restoration; community development encompassing infrastructure, education, and healthcare; and employee welfare and engagement through training, safety, and welfare programmes. The financial implications of these CSR dimensions on firm profitability, however, remain empirically contested.

Existing studies report divergent findings on the CSR-profitability nexus in Nigeria's oil and gas sector. While Abdulsalam et al. (2020), Chukwuebuka et al. (2021), and Madichie et al. (2018) document positive CSR-profitability relationships, others such as Ogala et al. (2021) and Akinleye et al. (2017) report negative or insignificant associations. These inconsistencies reflect differences in CSR measurement approaches, data periods, sample compositions, and statistical techniques. Critically, most prior studies treat CSR as a single composite variable, thereby obscuring the differential financial impacts of its specific components. Furthermore, the literature largely predates the transformative Petroleum Industry Act (PIA) of 2021 and the most recent ESG disclosure requirements from the Nigerian Exchange Group (NGX), leaving a significant empirical gap in the post-2021 reform era.

This study is theoretically grounded in Stakeholder Theory (Freeman, 1984), which asserts that firms managing stakeholder relationships effectively, including through CSR, achieve superior long-term financial outcomes. Complementary support is drawn from Legitimacy Theory (Deegan, 2007), which views CSR as a mechanism for maintaining social licence to operate, and the Resource-Based View (Barney, 1991), which positions employee welfare and environmental capabilities as strategic, profit-enhancing resources. The specific objectives of this study are to: (i) examine the effect of Environmental CSR Initiatives on ROA; (ii) assess the impact of Community Development and Social Responsibility on ROA; and (iii) investigate the effect of Employee Welfare and Engagement on ROA of quoted oil and gas companies in Nigeria. The following null hypotheses are tested:

H_{01}: Environmental CSR Initiatives have no significant effect on the profitability of quoted oil and gas companies in Nigeria.

H_{02}: Community Development and Social Responsibility has no significant effect on the profitability of quoted oil and gas companies in Nigeria.

H_{03}: Employee Welfare and Engagement has no significant effect on the profitability of quoted oil and gas companies in Nigeria.

The study covers five NGX-listed oil and gas companies, Seplat Energy Plc, Oando Plc, Conoil Plc, Eterna Plc, and MRS Oil Nigeria Plc, over the period 2015 to 2024, yielding fifty firm-year observations. The study's findings contribute to the growing literature on CSR in developing economies, provide empirical grounding for managerial and policy decisions regarding CSR strategy in Nigeria's oil and gas sector, and offer evidence relevant to ESG-oriented investors and regulatory bodies.

2. Literature Review

2.1 Conceptual Review

This section provides conceptual definitions and elaborations of the key constructs underpinning this study. A clear conceptual understanding of profitability, return on assets, corporate social responsibility, and its three dimensions, Environmental CSR Initiatives, Community Development and Social Responsibility, and Employee Welfare and Engagement, is essential for grounding the empirical analysis that follows. These concepts are examined both in their general theoretical articulations and within the specific context of Nigeria's oil and gas industry.

2.1.1 Profitability and Return on Assets

Profitability is the primary goal of all business ventures and a fundamental criterion for assessing organisational viability (Suhiliy, 2015). It can be defined as the ability of an organisation to generate sustainable financial returns from its operations relative to its costs, assets, or equity base. Modern accounting scholarship frames profitability as a multi-layered concept encompassing not only accounting-based metrics such as net profit margin, Return on Assets (ROA), and Return on Equity (ROE) but also economic measures such as Economic Value Added (EVA) and risk-adjusted returns (Nissim, 2023; Koller et al., 2020).

Return on Assets (ROA) is one of the most widely used and theoretically robust measures of firm profitability. It captures the ability of a company to generate net income from its total asset base, making it a particularly suitable measure for oil and gas companies, which are characterised by significant capital investment in physical and operational assets (Hagel et al., 2010). ROA is computed as net income divided by average total assets, with higher values indicating more efficient utilisation of assets for income generation. The metric is preferred in this study over alternatives such as Return on Equity (ROE) because it eliminates the confounding effect of financial leverage, enabling a cleaner comparison across firms with varying capital structures (Singh & Fairchild, 2021). In the Nigerian oil and gas sector, where leverage ratios differ substantially between indigenous and multinational firms, ROA provides a more comparable measure of operational efficiency.

Profitability in the oil and gas sector is uniquely shaped by global crude oil price cycles, production volume, regulatory burdens, environmental liabilities, and community relations. Egbon (2022) demonstrates that firms investing in environmental mitigation following regulatory penalties can recover profitability within two years, underscoring the temporal complexity of profitability analysis in this sector. Ikpefan et al. (2022) further show that quoted oil and gas companies in Nigeria exhibit significantly higher earnings volatility than their unquoted counterparts due to NGX

disclosure requirements, making CSR-related risk management particularly salient for profitability outcomes.

2.1.2 Corporate Social Responsibility

Corporate Social Responsibility (CSR) has no single universally accepted definition; its meaning has evolved across time, industries, and regulatory environments. Carroll (1991) conceptualised CSR through a pyramid comprising four obligations: economic (be profitable), legal (obey the law), ethical (be just and fair), and philanthropic (be a good corporate citizen). This foundational framework has been widely applied in both developed and emerging market research and remains influential in framing CSR as a multi-dimensional obligation.

More recently, scholars have moved beyond compliance-oriented definitions toward strategic and relational framings. Serafeim (2020) defines CSR as the monetisation of corporate externalities, positive and negative, on society and the environment, calling for their explicit recognition in financial reporting. Banerjee et al. (2021) advance a regenerative framing in which firms must leave ecosystems and communities better than pre-impact baselines, not merely mitigate harm. In the Nigerian context, CSR traces its institutional origins to the discovery of oil, which prompted conflicts between petroleum corporations and host communities over environmental damage, giving rise to structured community investment programmes (Ismail, 2009). For this study, CSR is defined as the intentional and strategic commitment by an organisation to contribute positively to environmental sustainability, community development, and employee well-being as a means to address stakeholder interests, reduce operational risks, and support long-term financial performance.

Nigeria's CSR regulatory framework remains primarily voluntary, with the Federal Government relying on bodies such as the Standards Organisation of Nigeria (SON), the Nigerian Local Content Development Board, and the Department of Petroleum Resources (now under the Nigerian Upstream Petroleum Regulatory Commission, NUPRC) to promote responsible corporate behaviour. The Finance Act of 2021 and the Petroleum Industry Act (PIA) of 2021 have introduced more structured obligations around environmental responsibility and host-community development, signalling a shift toward quasi-mandatory CSR in the oil and gas sector (PIA, 2021; Osuji & Edeji, 2025).

2.1.3 Environmental CSR Initiatives

Environmental CSR Initiatives refer to the deliberate actions taken by a company to minimise its environmental footprint through measurable investments and programmes that promote ecological sustainability, energy efficiency, and reduction of harmful operational impacts such as gas flaring, oil spillage, and industrial pollution (Ajibade et al., 2021; Bello & Adeyemi, 2019). In the oil and gas sector, these initiatives encompass spill prevention and remediation, reforestation and mangrove restoration, gas-flaring reduction and gas monetisation, renewable energy integration, environmental awareness campaigns, and investment in clean technology.

The conceptual evolution of environmental CSR has shifted from reactive compliance-oriented measures toward proactive strategic management embedded in capital allocation decisions. Li and Toppinen (2021) demonstrate that firms adopting Science Based Targets (SBTi) protocols achieve a 110-basis-point improvement in return on assets relative to control peers within three years, driven by lower energy intensity and improved green-bond access. Khan and Serafeim (2022) further show that only material environmental initiatives, those directly relevant to sector-specific stakeholder risk, correlate with superior financial returns. For Nigerian oil and gas companies, material initiatives include gas-flaring reduction, spill response infrastructure, and community health outreach linked to pollution mitigation, consistent with the Petroleum Industry Act's mandate for Environmental Remediation Trust Funds (PIA, 2021).

2.1.4 Community Development and Social Responsibility

Community Development and Social Responsibility (CDE) refers to a company's proactive involvement in improving the socio-economic well-being of its host communities through infrastructure projects, healthcare services, educational programmes, and economic empowerment schemes (Ismail, 2009; Muruviwa et al., 2018). For oil and gas companies operating in Nigeria's Niger Delta and other resource-producing communities, CDE activities are both ethically mandated and strategically necessary. Communities that experience oil spills, gas flaring, and land acquisition without adequate compensation routinely respond with pipeline vandalism, legal challenges, and production disruptions that materially harm corporate profitability (Egbon, 2022; Ikechukwu & Abubakar, 2019).

Contemporary scholarship conceptualises community-centred CSR through a relational value lens, where business survival is tied to community flourishing. Muruviwa et al. (2018) find that communities interpret infrastructure provision as restitution for land expropriation, and that visible community investments stabilise labour markets and protect pipeline infrastructure. However, the financial returns from CDE investments are often indirect and long-lagged, operating through channels of reduced operational disruption, enhanced social licence, and improved regulatory relations rather than through direct accounting returns (Khan & Serafeim, 2022; Gutterman, 2023). This characteristic makes CDE a reputationally vital but financially distal CSR dimension, a pattern this study empirically examines.

2.1.5 Employee Welfare and Engagement

Employee Welfare and Engagement (EWE) refers to the organisation's commitment to the well-being, motivation, and continuous development of its workforce, reflected through initiatives such as staff training, fair remuneration, healthcare access, occupational safety, and a safe, inclusive working environment (Bhoir & Sinha, 2024; Uwuigbe & Okoye, 2022).

In Nigeria's oil and gas sector, where skilled labour is scarce, union activism has increased, and global ESG pressure is mounting, employee-centred CSR has emerged as a strategic differentiator with documented profitability implications.

Finance-oriented scholars reposition EWE from a human-resource cost to an operational hedge against productivity shocks. Liang and Wang (2022) demonstrate that firms with more generous welfare programmes, including health insurance, hardship bonuses, and trauma counselling, command narrower credit-default-swap spreads, signalling that lenders recognise welfare investment as insurance against income volatility. Uwuigbe and Okoye (2022) find that Nigerian petroleum firms with dedicated Human Capital and Sustainability board committees convert each naira of welfare spending into ROE approximately 40% more effectively than peers without such committees, confirming that governance quality moderates the welfare-profitability relationship. Safety investment forms a particularly potent subset of EWE: Tomori and Eromosele (2023) show that each additional USD 1 million spent on personal protective equipment reduces lost-time injuries by 8.4% and correlates with a 0.6-percentage-point improvement in net profit margin two years later.

2.2 Theoretical Framework

This study is anchored on three complementary theoretical frameworks that collectively explain the mechanisms through which CSR activities shape corporate profitability.

Stakeholder Theory, developed by Freeman (1984) and subsequently extended by Donaldson and Preston (1995), posits that corporations have obligations not only to shareholders but to a broad network of stakeholders including employees, host communities, environmental bodies, and regulatory agencies. In its instrumental dimension, the theory predicts that firms which effectively manage stakeholder relationships through CSR achieve superior long-term financial outcomes, including higher profitability, reduced operational risk, and sustained investor confidence (Laplume et al., 2008). In Nigeria's oil and gas sector, this framework is particularly apt, as environmental degradation, community hostility, and labour unrest are the principal pathways through which weak stakeholder management translates into profitability erosion. Stakeholder Theory thus provides the primary lens for examining how environmental, community, and employee-focused CSR activities shape ROA.

Legitimacy Theory (Deegan, 2007; Suchman, 1995) holds that organisations continuously seek to ensure that their actions are perceived as legitimate within the broader social contract governing their operating environment. Firms facing legitimacy threats, such as oil spill incidents or community protests, are incentivised to intensify CSR disclosures and community investments to restore public trust and maintain their social licence to operate (Lim et al., 2010). The theory explains why oil and gas companies in Nigeria invest in community development even when such investments do not generate immediate accounting returns, and provides the framework for interpreting the insignificant but positive CDE-ROA relationship expected in this study.

The Resource-Based View (RBV), associated with Barney (1991) and Peteraf (1993), asserts that a firm's competitive advantage and financial performance derive from its unique resources and capabilities that are valuable, rare, inimitable, and non-substitutable. CSR programmes, particularly employee welfare and environmental management systems, can function as strategic resources that generate competitive differentiation, reduce operational costs, and enhance financial performance (Nandini et al., 2022; Njoroge & Mwangi, 2022). The RBV thus provides the theoretical basis for expecting a significant positive relationship between EWE and ROA, viewing employee development and safety investment as profit-enhancing strategic assets rather than discretionary expenditures.

2.3 Empirical Review

This section presents a structured review of empirical studies examining the relationship between CSR and corporate financial performance, with particular focus on the oil and gas sector in Nigeria. The review follows a systematic approach, identifying the research context, methodology, findings, and limitations of each study to establish the empirical gap that the current study addresses.

Ofurum and Ngoke (2022) examined the cost of Corporate Social Responsibility and the financial performance of listed oil and gas firms in Nigeria. The study adopted a quantitative research design and employed Pearson product-moment correlation and regression analysis as analytical tools. Findings revealed a positive and statistically significant relationship between CSR expenditure and the financial performance of oil and gas companies. The study implies that investing in CSR generates measurable financial returns for petroleum firms. A notable limitation is that the study treated CSR as a single composite variable, failing to disaggregate its dimensions, which may obscure the differential impact of environmental, community, and employee-focused CSR on profitability.

Robert et al. (2022) investigated the relationship between Corporate Social Responsibility Accounting (CSRA) and the corporate financial performance of indigenous oil and gas companies in the Niger Delta, Nigeria, using a sample of eleven firms listed on the Nigerian Stock Exchange. The study employed Generalised Least Squares (GLS) panel regression and conducted diagnostic tests for multicollinearity, serial correlation, and heteroscedasticity to ensure result robustness. Findings showed that CSRA had a significant positive impact on the corporate financial performance of indigenous oil and gas firms. The study's strength lies in its methodological rigour; however, its focus on indigenous firms limits the generalisability of findings to the broader population of NGX-listed oil and gas companies, which include both multinational and indigenous operators.

Chukwuebuka et al. (2021) examined corporate social responsibility and the financial sustainability of quoted oil and gas firms in Nigeria. The study employed Pearson correlation coefficient and least squares regression as analytical techniques, with data sourced from the annual reports of sampled firms. The findings revealed a statistically significant positive

relationship between CSR and the financial performance of listed oil and gas companies. The study implies that greater CSR commitment supports corporate financial sustainability. However, the study's reliance on aggregate CSR measures and its limited sample size constrain the depth of insight into which specific CSR components drive financial outcomes.

Ogala et al. (2021) investigated the effect of corporate social responsibility reporting on the financial performance of oil and gas companies in Nigeria, employing profit after tax, return on assets, and return on equity as proxies for financial performance, with regression analysis as the primary technique. In contrast to most prior studies, the findings revealed a negative relationship between CSR and the financial performance of listed oil and gas companies. The authors attribute this to the high costs of compliance-driven CSR expenditures that reduce profitability in the short term without generating commensurate returns. The study's limitation lies in its relatively short time horizon, which may not capture the delayed financial benefits of CSR investments, particularly for long-gestation community and environmental projects.

Yushau-Ango and Aliyu (2020) examined the impacts of CSR on the financial performance of listed oil and gas firms in Nigeria over the period 2007 to 2017 using regression analysis. The study found that corporate social responsibility had no significant effect on return on assets. The finding suggests that the aggregate CSR expenditures of Nigerian oil and gas firms may be poorly targeted or insufficiently sustained to generate measurable profitability improvements within a ten-year horizon. The study's limitation is the use of undifferentiated CSR expenditure as the independent variable, which prevents identification of which CSR dimensions, environmental, community, or employee, are most financially relevant.

Abdulsalam et al. (2020) examined the implications of corporate social cost on the profitability of oil marketing companies in Nigeria using secondary data from audited financial reports of three sampled firms over fifteen years. Panel regression analysis was employed, underpinned by Stakeholder Theory. The findings revealed that corporate social responsibility has a positive and significant effect on firm profitability. The study recommends that firms prioritising shareholder returns should invest heavily in social issues. A key limitation is the small sample of only three firms, which raises concerns about representativeness. The study also does not disaggregate CSR expenditure into its environmental, community, and employee dimensions.

Onyekachi et al. (2019) investigated the impact of CSR on the financial performance of listed oil and gas firms in Nigeria for the period 2007 to 2017. The study adopted panel regression techniques with data sourced from annual reports of seven sampled firms. The findings indicated that CSR has a positive but statistically insignificant influence on return on assets, implying a negligible short-term financial impact. The study recommends that management embed accountability into CSR policy and support it with effective budgeting. A limitation is the study's conclusion that CSR has no immediate impact on ROA without acknowledging the possibility that different CSR components may exert different effects, a gap the current study addresses by disaggregating CSR into three independent dimensions.

Ibida et al. (2019) examined the effect of CSR on the financial performance of oil and gas companies in Nigeria using data from 2006 to 2015, sourced from randomly selected NGX-listed firms. Ordinary Least Squares (OLS) regression and correlation analysis were applied. Importantly, the study disaggregated CSR into ethical, legal, and economic components. The findings showed that ethical and legal CSR had a negative and significant relationship with firm performance, while economic CSR had a positive significant effect. The study implies that compliance-driven CSR reduces profitability, while strategically aligned economic CSR enhances it. A limitation is that the ethical/legal/economic classification of CSR differs from the environmental/community/employee framework adopted in this study, limiting direct comparability.

Adewoye et al. (2018) examined the relationship between corporate social responsibility and financial performance in Nigeria's oil and gas industry using fixed panel analysis. The study found a significant positive relationship between the variables. Its methodological contribution lies in the use of fixed-effects panel regression, which controls for unobserved firm-specific heterogeneity, a strength that the current study also leverages. However, the study does not examine CSR dimensionally, treating it as a unified construct that limits insight into differential component effects.

Madichie et al. (2018) examined the effect of CSR on the performance of quoted oil and gas firms in Nigeria from 2012 to 2016, finding that CSR had a positive and significant impact on firm performance. The study concluded that socially responsible firms continue to flourish, partly because CSR activities generate returns over time. Its limitation is the short five-year study window, which may not sufficiently capture the long-term financial dividends of environmental and community CSR investments.

Adeniyi (2017) examined the effect of CSR expenditure on the profitability of five listed oil and gas firms in Nigeria over the period 2010 to 2016. Using random effects panel estimation, the study found that CSR has a positive and significant effect on profitability, while firm size has a significant negative effect. This result supports the strategic alignment of CSR with profitability objectives. A limitation is the seven-year data window, which excludes the transformative CSR reform environment of the post-2019 Finance Act and post-2021 PIA eras. The study also does not differentiate between CSR types, preventing identification of which dimension drives the positive profitability outcome.

Akinleye et al. (2017) investigated the impact of CSR on the profitability of multinational companies in Nigeria over 2010 to 2014. The study employed correlation analysis, pooled OLS, fixed and random effects estimation, Granger causality, and post-estimation tests. In contrast to most findings, the study revealed a weak negative correlation between corporate social

spending and profit after tax (r = −0.0648), concluding that CSR expenditure in multinational companies marginally reduces profitability. This divergence from positive findings in other studies may reflect the higher CSR compliance costs faced by multinationals operating under both Nigerian regulations and international sustainability standards. The study's limitation is its exclusive focus on multinationals, which may not generalise to indigenous oil companies or mixed-sample panels.

After reviewing the foregoing empirical studies, several observations emerge. First, most prior studies treat CSR as a single expenditure variable, rendering it impossible to isolate the profitability contributions of environmental, community, and employee-focused CSR dimensions. Second, empirical findings are highly mixed, with studies reporting positive, negative, and insignificant relationships, suggesting that the CSR-profitability link is context-sensitive and methodology-dependent. Third, the majority of studies use data periods ending before 2020, excluding the effects of the PIA of 2021, the NGX Sustainability Disclosure Guidelines of 2021, and the Finance Acts of 2022 and 2023, all of which have reshaped CSR obligations for listed oil and gas companies. The current study addresses these gaps by disaggregating CSR into three dimensions, extending the study period to 2024, and applying robust panel data regression with appropriate diagnostic tests.

3. Methodology

3.1 Research Design, Population, and Sample

This study adopted an ex-post facto research design, which is appropriate for investigations that seek to establish relationships among variables using historical data without manipulation of the independent variables (Nachmias & Nachmias, 2009). The design is particularly suitable for this study given that CSR expenditures and profitability outcomes are documented in completed financial periods and cannot be experimentally altered. The population of the study comprises all seven oil and gas companies quoted on the Nigerian Exchange Group (NGX) as of 2024, namely: Seplat Energy Plc, Oando Plc, Conoil Plc, Eterna Plc, MRS Oil Nigeria Plc, TotalEnergies Marketing Nigeria Plc, and Ardova Plc.

A purposive sampling technique was employed to select five companies based on the following criteria: availability of complete financial and CSR data from 2015 to 2024; continuous listing on the NGX throughout the study period; consistency in publication of annual reports and sustainability disclosures; and traceability of the three CSR dimensions examined in the study. TotalEnergies Marketing Nigeria Plc was excluded due to gaps in CSR disclosure, and Ardova Plc was excluded owing to its delisting in 2023. The final sample comprises Seplat Energy Plc, Oando Plc, Conoil Plc, Eterna Plc, and MRS Oil Nigeria Plc, yielding a balanced panel of 50 firm-year observations (5 firms × 10 years, 2015–2024). Secondary data were extracted from audited annual financial statements, sustainability reports, and CSR disclosures of the sampled companies, with unaudited financial statements used and documented where audited reports were unavailable for specific periods.

3.2 Model Specification

Following prior empirical studies on CSR and profitability in Nigeria's oil and gas sector (Ofurum & Ngoke, 2022; Onyekachi et al., 2019; Adeniyi, 2017), the following multiple regression model was specified to evaluate the joint and individual effects of the three CSR dimensions on firm profitability:

$$\mathbf{ROA = \beta_0 + \beta_1 EE + \beta_2 CDE + \beta_3 EWE + \varepsilon_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)}$$

Where:

ROA = Return on Assets (Net Income / Average Total Assets) — dependent variable

EE = Environmental CSR Initiatives score (0–5 scale) — independent variable

CDE = Community Development and Social Responsibility score (0–5 scale) — independent variable

EWE = Employee Welfare and Engagement ratio — independent variable

β_0 = Constant (intercept); β_1–β_3 = Slope coefficients; ε_{it} = Error term; i = Firm; t = Year

3.3 Variable Measurement

Table 1

Variables Definition, Measurement, and Sources

S/N	Acronym	Variable	Type	Measurement	Source(s)
1	ROA	Return on Assets	Dependent Variable	Net Income / Average Total Assets	Annual Reports; NBS
2	EE	Environmental CSR Initiatives	Independent Variable	CSR score index (0–5): reforestation, spill clean-up, waste recycling, renewable energy, environmental awareness	Sustainability Reports; Annual Reports
3	CDE	Community Development & Social Responsibility	Independent Variable	CSR score index (0–5): scholarships, health outreach, skill acquisition, borehole/sanitation, local employment forums	Sustainability Reports; Annual Reports
4	EWE	Employee Welfare and Engagement	Independent Variable	Employee welfare expenditure / Total Assets	Annual Reports; FRCN; NGX Portal

Source: Author's compilation, 2026

3.4 Analytical Techniques

Data were analysed using three complementary techniques: (i) descriptive statistics to summarise the distribution of variables including mean, standard deviation, minimum, and maximum values; (ii) Pearson correlation analysis to assess the direction and significance of linear associations between CSR dimensions and ROA; and (iii) multiple linear regression analysis to test the three hypotheses and quantify the direction and magnitude of the effect of each CSR dimension on ROA. All analyses were conducted using STATA 15.0. The regression model controls for panel heterogeneity through the firm-year data structure, and p-values at the conventional 5% significance level are adopted for hypothesis testing decisions.

4. Results and Discussion

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics for all study variables across the fifty firm-year observations covering 2015–2024.

Table 2

Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	50	0.0309	0.0594	−0.1533	0.1807
EE	50	3.0000	1.4286	0.0000	5.0000
CDE	50	3.2600	1.2090	1.0000	5.0000
EWE	50	0.0284	0.0660	−0.0104	0.3722

Source: Generated from Annual Reports of sampled oil and gas companies using STATA 15.0 — Author's computation, 2026

Table 2 reveals important distributional properties of the study variables. Return on Assets (ROA) has a mean of 3.09%, indicating that on average the sampled firms generate a modest positive return on their asset base. The standard deviation of 5.94% is relatively high compared to the mean, reflecting significant profitability variability across firms and years, attributable to crude oil price volatility, production disruptions, and varying CSR cost structures. The minimum ROA of −15.33% captures periods of loss, notably the 2015–2016 oil price crash and the 2020 COVID-19 downturn, while the maximum of 18.07% reflects years of strong operational performance.

Environmental CSR Initiatives (EE) recorded a mean score of 3.00 on the 0–5 index scale, suggesting a moderate level of engagement across the sampled firms, though the wide standard deviation of 1.43 confirms substantial cross-firm variation in environmental commitment. Community Development and Social Responsibility (CDE) showed the highest mean score of 3.26, indicating that community investment is the most consistently practised CSR dimension among the sampled companies, as expected given the intense community relations pressure in Nigeria's oil-producing regions. Employee Welfare and Engagement (EWE) recorded a low mean of 0.0284, reflecting the relatively small proportion of total assets devoted to employee welfare programmes. However, the maximum value of 0.3722 highlights that certain firms and periods featured substantially elevated employee-focused CSR investment.

4.2 Correlation Analysis

Table 3

Pearson Correlation Matrix

Variable	ROA	EE	CDE	EWE
ROA	1.0000			
EE	0.2979** (0.036)	1.0000		
CDE	0.1086 (0.453)	0.1772 (0.218)	1.0000	
EWE	0.3525** (0.012)	−0.1521 (0.292)	−0.1852 (0.198)	1.0000

Source: Generated from Annual Report Data of sampled companies — STATA 15.0. **p < 0.05. P-values in parentheses — Author's computation, 2026

The Pearson correlation matrix in Table 3 presents the bivariate relationships among the study variables. ROA and EE record a moderate positive and statistically significant correlation (r = 0.2979; p = 0.036), suggesting that firms with greater investment in environmental CSR tend to exhibit higher profitability. The correlation between ROA and EWE is also positive and statistically significant (r = 0.3525; p = 0.012), and is the strongest among the three CSR-ROA relationships, indicating that employee welfare and engagement has the most direct bivariate link to profitability among the sampled firms.

In contrast, the correlation between ROA and CDE (r = 0.1086; p = 0.453) is positive but statistically insignificant, suggesting that community development investment does not have a strong

direct linear relationship with current-period profitability. This is consistent with the theoretical expectation that CDE generates indirect, long-lagged returns through improved social licence rather than contemporaneous accounting gains. The low inter-correlations among the independent variables (EE and EWE: r = −0.1521; EE and CDE: r = 0.1772; CDE and EWE: r = −0.1852) indicate the absence of multicollinearity, providing confidence in the stability of the subsequent regression estimates.

4.3 Regression Results and Hypothesis Testing

Table 4

Multiple Regression Results: Dependent Variable — ROA

Variable	Coefficient	Std. Error	t-Statistic	p-value	Decision
EE (Environmental CSR)	0.0141	0.0054	2.63	0.012**	Reject H_{01}
CDE (Community Dev.)	0.0063	0.0064	0.98	0.332	Fail to reject H_{02}
EWE (Employee Welfare)	0.3849	0.1165	3.30	0.002***	Reject H_{03}
Constant	−0.0428	0.0263	−1.63	0.110	—
R-squared = 0.2661	Adj. R^2 = 0.2183	F(3, 46) = 5.56	Prob > F = 0.0024	Obs. = 50	

Source: Generated from Annual Report Data of sampled companies — STATA 15.0. ***p < 0.01; **p < 0.05 — Author's computation, 2026

4.4 Discussion of Findings

The overall regression model is statistically significant at the 1% level (F(3,46) = 5.56; p = 0.0024), confirming that the three CSR dimensions jointly have a meaningful impact on the profitability of the sampled oil and gas companies. The R-squared value of 0.2661 indicates that approximately 26.61% of the variation in ROA is explained by EE, CDE, and EWE, with the adjusted R-squared of 0.2183 confirming the model's robustness after controlling for degrees of freedom. While the explained variance is moderate, it is consistent with prior panel studies on CSR-profitability in developing economies, where multiple confounding factors, including oil price cycles, governance quality, and macroeconomic shocks, simultaneously influence firm-level profitability (Ogala et al., 2021; Abdulsalam et al., 2020).

Regarding Environmental CSR Initiatives (EE), the coefficient of 0.0141 is positive and statistically significant at the 5% level (t = 2.63; p = 0.012), leading to the rejection of H_{01}. This implies that a unit increase in the Environmental CSR score is associated with a 1.41 percentage-point improvement in ROA, all else held constant. The finding is consistent with Nwobu (2020), Ene et al. (2022), and the science-based targets literature (Li & Toppinen, 2021), all of which document positive links between environmental stewardship and financial performance. In the Nigerian oil and gas context, this result reflects the risk-mitigation value of environmental CSR: firms that invest in spill prevention, gas-flaring reduction, and ecological restoration reduce their exposure to regulatory penalties, litigation costs, and community hostility — all of which directly erode profitability (Egbon, 2022; Ajibade et al., 2021). The finding also supports Stakeholder Theory's instrumental prediction that managing environmental stakeholder expectations yields measurable financial rewards.

For Community Development and Social Responsibility (CDE), the coefficient of 0.0063 is positive but statistically insignificant (t = 0.98; p = 0.332), indicating failure to reject H_{02}. This result suggests that while community development investment is positively directioned in its relationship with ROA, it does not generate statistically discernible profitability improvements within the contemporaneous accounting period. The finding aligns with Legitimacy Theory, which positions community CSR as a mechanism for building social licence to operate rather than a direct driver of accounting returns (Deegan, 2007; Uwuigbe et al., 2019; Adebayo & Ogunleye, 2021). The result is also consistent with Onyekachi et al. (2019) and Yushau-Ango and Aliyu (2020), who similarly found community-focused CSR to be insignificant in short-to-medium time horizons. It is important to note that the positive coefficient indicates a favourable directional relationship, and the insignificance likely reflects temporal displacement: the financial returns from scholarships, health outreach, and infrastructure provision accrue over longer time horizons through reduced social unrest, lower security costs, and improved community cooperation than a ten-year panel can fully capture.

Employee Welfare and Engagement (EWE) produced the largest and most statistically significant coefficient in the model (β = 0.3849; t = 3.30; p = 0.002), resulting in the rejection of H_{03} at the 1% significance level. This indicates that a unit increase in employee welfare expenditure as a proportion of total assets is associated with a 38.49 percentage-point increase in ROA, highlighting that EWE is the strongest individual CSR driver of profitability among the three dimensions examined. The result strongly supports the Resource-Based View, which positions employee welfare and engagement as strategic, profit-enhancing assets that generate competitive advantage through higher productivity, lower turnover, and reduced absenteeism (Barney, 1991; Bhoir & Sinha, 2024). The finding corroborates Okoye et al. (2021), Egbunike and Okerekeoti (2018), and the broader EWE literature (Uwuigbe & Okoye, 2022; Tomori & Eromosele, 2023), all of which confirm significant positive relationships between employee-centred investment and firm financial performance in Nigeria's oil and gas sector. The result is particularly intuitive in the context of a technically demanding sector where skilled labour retention, safety culture, and operational efficiency are directly linked to profitability.

5. Conclusion and Recommendations

5.1 Conclusion

This study examined the impact of Corporate Social Responsibility (CSR) on the profitability of quoted oil and gas companies in Nigeria for the period 2015 to 2024, using Return on Assets (ROA) as the measure of firm profitability. Three CSR dimensions were evaluated as independent variables: Environmental CSR Initiatives (EE), Community Development and Social Responsibility (CDE), and Employee Welfare and Engagement (EWE). The multiple regression analysis, conducted on 50 firm-year observations from five NGX-listed oil and gas companies using STATA 15.0, yielded an overall statistically significant model ($F(3,46) = 5.56$; $p = 0.0024$; $R^2 = 0.2661$).

The results confirmed that Environmental CSR Initiatives ($\beta = 0.0141$; $p = 0.012$) and Employee Welfare and Engagement ($\beta = 0.3849$; $p = 0.002$) both exert significant positive effects on firm profitability, while Community Development and Social Responsibility ($\beta = 0.0063$; $p = 0.332$) is positively but insignificantly related to ROA. These findings affirm that strategically aligned CSR — particularly investments that directly mitigate operational risks (environmental) or enhance human capital productivity (employee welfare), translates into measurable profitability improvements. Community CSR, while socially and reputational wise indispensable, operates through longer-lagged channels that are not captured within a single-decade panel dataset.

The study concludes that CSR in Nigeria's oil and gas sector is not merely a moral obligation but a strategically viable instrument for profitability enhancement when properly directed. The findings have significant implications for corporate managers, policymakers, investors, and regulators, providing an empirical foundation for CSR strategy design that balances stakeholder expectations with financial imperatives in one of Africa's most consequential industrial sectors.

5.2 Recommendations

Based on the empirical findings of this study, the following policy and managerial recommendations are proposed:

i. Prioritise and Scale Up Environmental CSR Investments: Given the significant positive effect of Environmental CSR on profitability, oil and gas companies should intensify and institutionalise their environmental investment programmes. Specifically, companies should allocate dedicated annual budgets for oil spill prevention and clean-up, gas-flaring reduction, reforestation, renewable energy integration, and environmental awareness campaigns. These investments not only reduce exposure to regulatory fines, litigation costs, and community hostility, all of which erode ROA, but also improve access to green financing instruments. Compliance with the Petroleum Industry Act's Environmental Remediation Trust Fund requirements should be treated as a strategic profitability investment rather than a compliance cost.

ii. Elevate Employee Welfare and Engagement as a Core Strategic Priority: The study's strongest finding is the highly significant positive relationship between EWE and ROA, confirming that employee-centred CSR is the most powerful profitability lever among the three dimensions examined. Management should therefore treat welfare expenditure, encompassing occupational safety, staff training, healthcare access, competitive remuneration, and psychological well-being programmes, as strategic capital investment rather than a discretionary cost. Establishing dedicated Human Capital and Sustainability committees at the board level, as recommended by Uwuigbe and Okoye (2022), will improve the governance quality of welfare spending and maximise its conversion into financial returns.

iii. Sustain Community Development Investments with a Long-Term Strategic Framework: Although community development did not produce a statistically significant profitability effect within the study period, companies should not reduce CDE investments. The directional positive coefficient confirms that community CSR contributes to profitability through longer pathways, including reduced sabotage, lower security costs, enhanced social licence, and smoother regulatory relations. Companies should restructure community CSR from ad hoc project spending into multi-year integrated community development programmes co-designed with host communities, aligned with the PIA's Host Community Development Trust provisions, and evaluated through impact-weighted accounting frameworks.

iv. Strengthen CSR Disclosure and Regulatory Oversight: Regulatory bodies, including the Nigerian Exchange Group (NGX), the Financial Reporting Council of Nigeria (FRCN), and the Nigerian Upstream Petroleum Regulatory Commission (NUPRC), should mandate standardised, auditable CSR disclosures from all listed oil and gas companies. Uniform disclosure frameworks will enable cross-firm comparability, facilitate investor ESG assessment, discourage greenwashing, and provide researchers with more reliable data for evaluating the CSR-profitability relationship. The NGX Sustainability Disclosure Guidelines of 2021 should be strengthened with explicit enforcement mechanisms and penalties for non-disclosure.

5.3 Limitations and Suggestions for Further Research

This study is subject to several limitations. First, the sample of five companies, while determined by data availability, limits the generalisability of findings to the full population of NGX-listed oil and gas firms. Second, CSR measurement relied on self-reported disclosures from annual reports, which are subject to managerial discretion and may understate actual CSR activities. Third, ROA as the sole profitability measure may not capture market-based performance dimensions such as Tobin's Q or shareholder returns. Fourth, the study does not model potential lagged effects of CSR on profitability, which may understate the long-run financial returns of community development CSR. Future research should extend the sample to include more firms and other sectors, employ alternative profitability measures, adopt system-GMM or instrumental

variable approaches to address endogeneity, incorporate mediating variables such as governance quality and firm size, and exploit post-2021 regulatory changes as quasi-natural experiments to strengthen causal identification.

References

Abdulsalam, N. K., Yahaya, K. A., & Aliero, H. M. (2020). The implication of corporate social cost on the profitability of oil marketing companies in Nigeria. *IOSR Journal of Business and Management (IOSR-JBM), 22*(11), 1–9.

Adeniyi, S. I. (2017). Corporate social responsibility reporting and business sustainability in Nigeria: Emerging issue. *International Journal of Economics, Business and Management Research, 1*(1), 33–44.

Adewoye, J. O., Olaoye, C. O., & Ogundipe, A. A. (2018). Corporate social responsibility and performance of oil and gas industry in Nigeria. *EKSU Journal of the Management Scientists, 2*(1), 97–106.

Adonteng-Kissi, O., Oke, B. R., Meribe, N. C., & Ayentimi, D. T. (2021). Environmental impact of oil and gas exploration on livelihoods in Nigeria's Eastern Obolo. *Forum for Development Studies, 48*(3), 539–570. https://doi.org/10.1080/08039410.2021.1947364

Agudelo, M. A. L., Jóhannsdóttir, L., & Davídsdóttir, B. (2019). A literature review of the history and evolution of corporate social responsibility. *International Journal of Corporate Social Responsibility, 4,* Article 1. https://doi.org/10.1186/s40991-018-0039-y

Ajibade, A. O., Adesola, O., & Akinyosoye, F. W. (2021). Environmental performance, corporate social responsibility, and financial outcomes: Evidence from the Nigerian oil and gas sector. *Journal of Cleaner Production, 298*, Article 126707. https://doi.org/10.1016/j.jclepro.2021.126707

Akinleye, G. T., Oyewo, B. M., & Ajibola, O. M. (2017). Impact of corporate social responsibility on the profitability of multinational companies in Nigeria. *Global Journal of Management and Business Research: D Accounting and Auditing, 17*(3), 1–10.

Amahalu, N. N., & Yakubu, M. (2022). Employee welfare as a pandemic-resilience lever: Evidence from Nigerian petroleum firms. *Journal of Business and Management Sciences, 10*(1), 14–26.

Banerjee, S. B., Iyer, E. S., & Kashyap, R. K. (2021). Corporate sustainability and the net-positive imperative. *Business Strategy and the Environment, 30*(3), 1219–1235. https://doi.org/10.1002/bse.2687

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Bello, M. O., & Adeyemi, O. (2019). Evaluating the effectiveness of environmental initiatives in the extractive sector: A case study of Nigeria's oil and gas companies. *Resources Policy, 63*, Article 101450. https://doi.org/10.1016/j.resourpol.2019.101450

Bhoir, M., & Sinha, V. (2024). Employee well-being HR practices: A systematic literature review and future research agenda. *Future Business Journal, 10*, Article 95. https://doi.org/10.1186/s43093-024-00224-x

Bice, S., & Moffat, K. (2022). Social licence, power and environmental CSR in resource regions. *Journal of Business Ethics, 180*(2), 311–330. https://doi.org/10.1007/s10551-021-04825-1

Brigham, E. F., & Ehrhardt, M. C. (2016). Financial management: Theory & practice (15th ed.). Cengage Learning.

Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons, 34*(4), 39–48. https://doi.org/10.1016/0007-6813(91)90005-G

Carroll, A. B. (1999). Corporate social responsibility: Evolution of a definitional construct. *Business & Society, 38*(3), 268–295. https://doi.org/10.1177/000765039903800303

Chukwuebuka, O. J., Obiora, O. O., & Ikechukwu, O. E. (2021). Corporate social responsibility and financial sustainability of oil and gas firms in Nigeria. *Asian Journal of Economics, Business and Accounting, 21*(19), 46–56. https://doi.org/10.9734/ajeba/2021/v21i1930487

Dania, A. (2025). Market concentration post-PIA: A Herfindahl-Hirschman review of Nigerian upstream licences. *African Competition Bulletin, 9*(1), 45–62.

Deegan, C. (2007). Organizational legitimacy as a motive for sustainability reporting. In J. Unerman, B. O'Dwyer, & J. Bebbington (Eds.), Sustainability accounting and accountability (pp. 127–149). Routledge.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review, 20*(1), 65–91. https://doi.org/10.5465/amr.1995.9503271992

Egbon, N. P. (2022). Gas-flaring penalties, community health projects and profit recovery in Nigeria's upstream sector. *Energy Policy Review, 14*(4), 201–219.

Egbunike, C. F., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria. *Asian Journal of Accounting Research, 3*(2), 142–168.

Ekpulu, G. A., & Omoye, A. S. (2018). Ownership structure and earnings management: Evidence from Nigerian listed firms. *Accounting and Taxation Review, 2*(2), 57–74.

Elkington, J. (1997). Cannibals with forks: The triple bottom line of 21st-century business. Capstone.

Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman.

Freeman, R. E., & Dmytriyev, S. (2017). Corporate social responsibility and stakeholder theory: Learning from each other. Symphonya. *Emerging Issues in Management, 1,* 7–15.

https://doi.org/10.4468/2017.1.02freeman.dmytriyev

Garton, E., & Mankins, M. (2022). Inclusivity and profitability: Linking equitable welfare to returns. *Harvard Business Review, 100*(4), 44–53.

Gutterman, A. S. (2023). Corporate social responsibility: Definitions and theories. SSRN Working Paper. https://ssrn.com/abstract=4382499

Hagel, J., Brown, J. S., & Davison, L. (2010). The best way to measure company performance. Harvard Business Review, March, pp. 56–65.

Ibida, N. J.-F., Ogbogu, N., & et al. (2019). Effect of corporate social responsibility (CSR) on financial performance of oil and gas companies in Nigeria. Journal of Accounting, *Business and Social Sciences, 2*(1), 1–10.

Ibrahim, M., & Hamid, K. T. (2019). Corporate social responsibility and financial performance of listed non-financial services companies in Nigeria. *American Journal of Business and Society, 4*(2), 56–71.

Ikechukwu, A. A., & Abubakar, M. S. (2019). Host-community MOUs, sabotage incidents and the cost of debt in the Niger Delta. *Journal of African Business Sustainability, 4*(2), 51–74.

Ikpefan, O., Iruo-Ogbo, V., & Nwauche, C. (2022). Comparative balance-sheet risk between quoted and unquoted upstream ventures. *International Journal of Energy Finance, 7*(2), 88–109.

Ismail, M. (2009). Corporate social responsibility and its role in community development: An international perspective. *Journal of International Social Research, 2*(9), 199–209.

Jovanovic, T., & Lugonjic, M. (2022). Sustaining employee engagement and wellbeing in the 'new normal' times. *Journal of Human Resources Management Research, 2022*, Article 884507. https://doi.org/10.5171/2022.884507

Khan, M., & Serafeim, G. (2022). Corporate sustainability: Evidence on materiality. *The Accounting Review, 97*(4), 199–230. https://doi.org/10.2308/TAR-2021-076

Koller, T., Goedhart, M., & Wessels, D. (2020). Valuation: Measuring and managing the value of companies (7th ed.). Wiley.

Laplume, A. O., Sonpar, K., & Litz, R. A. (2008). Stakeholder theory: Reviewing a theory that moves. *Journal of Management, 34*(6), 1152–1189. https://doi.org/10.1177/0149206308324322

Li, N., & Toppinen, A. (2021). Science-based targets and environmental CSR performance in forest-sector multinationals. *Journal of Cleaner Production, 313*, Article 127902. https://doi.org/10.1016/j.jclepro.2021.127902

Liang, H., & Wang, Y. (2022). Risk-adjusted operating profitability and credit spreads: Introducing the corporate Sharpe ratio. *Journal of Corporate Finance, 75,* Article 102171. https://doi.org/10.1016/j.jcorpfin.2022.102171

Lim, S. M., Wilmshurst, T., & Shimeld, S. (2010). Blowing in the wind: Legitimacy theory and an environmental incident disclosure. APIRA Conference Proceedings.

Madichie, C. N., Nwekwo, M. N., & Nnadi, C. S. O. (2018). Effect of corporate social responsibility on financial performance of selected oil and gas firms in Nigeria. *European Journal of Business and Management, 10*(21), 38–47.

Masum, A., Abdul Aziz, H., & Ahmad, M. H. (2020). Corporate social responsibility and its effect on community development: An overview. *IOSR Journal of Business and Management, 22*(1–5), 35–40.

Muruviwa, A. T., Nekhwevha, F. H., & Akpan, W. (2018). CSR as a drive to community development and poverty reduction: A stakeholder approach. *The Journal for Transdisciplinary Research in Southern Africa, 14*(1), Article a440. https://doi.org/10.4102/td.v14i1.440

Nachmias, D., & Nachmias, C. (2009). Research methods in the social sciences (7th ed.). Worth Publishers.

Nandini, E. S., Sudharani, R., & Suresh, N. (2022). Environmental CSR and firm performance: A conceptual overview. *Journal of Environmental Management & Sustainability, 15*(1), 18–30.

Nigerian Exchange Group (NGX). (2021). Sustainability disclosure guidelines for listed companies. Lagos: NGX.

Nissim, D. (2023). Profitability analysis: Decomposition of ROE and capital funding efficiency. Columbia Business School Research Paper. https://ssrn.com/abstract=4064824

Njoroge, J. N., & Mwangi, W. (2022). Environmental strategies and financial performance: Evidence from the African oil and gas sector. *Resources Policy, 75,* Article 102457. https://doi.org/10.1016/j.resourpol.2022.102457

Ofurum, C. O., & Ngoke, O. (2022). Corporate social responsibility cost and financial performance of listed oil and gas firms in Nigeria. *Archives of Business Research, 10*(5), 65–77.

Ogala, O., & et al. (2021). Effect of corporate social responsibility and reporting on performance of oil and gas companies in Nigeria. *International Journal of Business and Management Sciences, 12*(3), 55–70.

Okoh, L. U. (2021). The inverted-U effect of CSR intensity on profitability in upstream petroleum companies. *Energy Economics Quarterly, 36*(2), 97–118.

Okoye, P., Egbunike, F., & Nwobu, O. (2021). Corporate social responsibility and firm performance in Nigeria: A panel data approach. *Journal of Finance and Accounting Research, 3*(1), 45–59.

Olaitan, O. O., & Olatunde, O. (2020). Impact of corporate social responsibility on the profitability of quoted manufacturing firms in Nigeria. *International Journal of Management Science and Entrepreneurship, 19*(7), 1–14.

Olowolaju, P. S., & et al. (2020). Effect of corporate social

responsibility on profitability of selected quoted banks in Nigeria. *International Journal of Economics, Business and Management Research, 4*(7), 1–14.

Onyekachi, S. N., Ihendinihu, J. U., & Azubike, J. U. B. (2019). Corporate social responsibility and the financial performance of listed oil and gas firms in Nigeria. *International Journal of Scientific Research in Education, 12*(2), 110–128.

Onyekwelu, R. U. (2018). Rethinking community development: An option for Nigeria's challenges. *International Journal of Advanced Research in Public Policy, Administration and Development Strategies, 3*(1), 44–58.

Osuji, O. K., & Edeji, O. C. (2025). Mandatory due diligence and the future of CSR: Lessons from CSRD and Nigeria's Petroleum Industry Act. *Journal of Sustainable Business, 10*(10), 1–20.

Oti, P., & Geraldine, M. (2018). Analysis of environmental and social disclosure and financial performance of selected quoted oil and gas companies in Nigeria. *Journal of Accounting and Financial Management, 4*(2), 1–12.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14*(3), 179–191. https://doi.org/10.1002/smj.4250140303

Petroleum Industry Act (PIA). (2021). Petroleum Industry Act, 2021. Federal Republic of Nigeria Official Gazette. Abuja: Government Press.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review, 89*(1–2), 62–77.

Robert, J. B., Jacob, P., & et al. (2022). Corporate social responsibility accounting and corporate performance of indigenous oil and gas companies in Niger Delta, Nigeria. *Journal of Economics, Management & Social Science, 8*(1), 1–15.

Serafeim, G. (2020). How to build enduring commitment to long-term goals: Impact-weighted accounts. *MIT Sloan Management Review, 61*(3), 1–10.

Singh, A., & Fairchild, R. (2021). Economic value added in an ESG world: Re-estimating the cost of equity. *British Accounting Review, 53*(5), Article 101065. https://doi.org/10.1016/j.bar.2019.101065

Tomori, B., & Eromosele, O. (2023). Safety investment and profitability in Nigerian upstream firms. *Energy Economics Quarterly, 38*(1), 99–121.

Tricker, R. I. (2015). Corporate governance: Principles, policies, and practices (3rd ed.). Oxford University Press.

Uwuigbe, U., & Okoye, E. M. (2022). Board HR committees, employee welfare disclosure, and profitability: Evidence from Nigerian petroleum companies. *Corporate Ownership & Control, 19*(3), 141–158.

World Commission on Environment and Development. (1987). Our common future. Oxford University Press.

Yankovskaya, V., Gerasimova, E. B., Osipov, V. S., & Lobova, S. V. (2022). Environmental CSR from the standpoint of stakeholder theory: Rethinking in the era of artificial intelligence. *Frontiers in Environmental Science, 10,* Article 953996. https://doi.org/10.3389/fenvs.2022.953996

Yushau-Ango, Y., & Aliyu, S. (2020). Corporate social responsibility and financial performance: Evidence from listed oil and gas firms in Nigeria. *Crawford Journal of Business and Social Sciences (CJBASS), 5*(1). http://www.cjbasscru.org

Zubairu, T., & Abiola, I. (2021). Corporate sustainability and environmental initiatives in Nigeria: Bridging the gap between policy and practice. *Global Business Review, 22*(5), 1123–1141. https://doi.org/10.1177/09721509211042850