

SUSTAINABILITY ACCOUNTING REPORTING AND FINANCIAL PERFORMANCE OF LISTED OIL AND GAS FIRMS IN NIGERIA

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ABSTRACT

This study analyzed the correlation between sustainability accounting reporting (SAR) and the financial performance of publicly traded oil and gas companies in Nigeria, emphasizing Return on Assets (ROA) as the principal financial indicator. The study utilizes the Global Reporting Initiative (GRI) framework to examine economic, environmental, and social sustainability disclosures of eight companies from 2014 to 2023. The study employed panel data regression and content analysis to illustrate that economic and social disclosures substantially influence ROA, but environmental disclosures show less direct financial impact. The main findings show that Respect for Indigenous Rights (RIR) increases profits, but Indirect Economic Impact (IEIP) has a negative effect. The study highlights the sector's challenges, including inconsistent reporting standards and deceptive public relations, underscoring the imperative for the strategic integration of sustainability initiatives with long-term financial goals. The paper calls for better regulatory oversight, consistent reporting requirements, and more research into the long-term effects of environmental disclosures and the effectiveness of different sustainability strategies in Nigeria.

Keywords: Sustainability Accounting, Financial Performance, Return on Assets (ROA), Oil and Gas Sector, Nigeria, GRI Framework.

1. INTRODUCTION

The oil and gas sector to a large extent contributed to the Nigerian gross domestic product (GDP) and increasing government revenue (Adedipe, 2020). The sector is closely monitored as a result of its environmental and social repercussions, hence a greater demand for enhancing its transparency and sustainability reporting. Sustainability accounting, according to the Global Reporting Initiative (GRI), is the systematic assessment, reporting, and responsibility of an organization's environmental, social, and governance (ESG) effects. It amalgamates non-financial data with conventional financial reporting to furnish stakeholders with a comprehensive perspective on corporate performance and long-term value generation (GRI, 2021).

Sustainability reporting is a comprehensive and strategic way by which companies present their governance, environmental and economic performance. Sustainability involves the balance of economic, environmental, and social factors to ensure that an organization meets its present needs without compromising the ability of future generations to meet their own. Sustainability is no longer a "nice-to-have" but a strategic imperative for modern businesses. It has potential to influence company performance. Sustainable practices are expected to lead reduced energy

consumption, waste management costs, and resource usage. Companies that adopt renewable energy can save significantly on operational costs. It is obligatory for consumers and stakeholders to increasingly favor businesses that are committed to sustainability. Therefore, organizations that fail to adopt sustainable practices risk damaging their reputation and losing market share to competitors. Although, sustainability initiative may require huge upfront investment, it will result in long-term profitability by reducing waste, material and energy consumption over time.

Economic performance pertains to financial contributions and the sustainability of business operations over the long term. The emphasis is on revenue and profitability associated with sustainability, job creation, economic development, supply chain sustainability, and investment in green technologies. Environmental performance reports on detailed organization's impacts on ecosystems and natural resources. The critical areas are water usage and management, biodiversity and land use, waster creation and recycling rates, energy consumption and efficiency and greenhouse gas emissions. The impact that a company has on people and places is measured by its social performance (SASB, 2023). Health and safety measures, community involvement, and hospitable workplaces are the main points of emphasis.

By proactively adopting sustainability practices, organizations avoid penalties and fines. It is expedient to examine the effect of sustainability accounting on the financial performance of oil and gas companies in Nigeria. By analyzing the effects of sustainability accounting, stakeholders can better understand how oil and gas companies in Nigeria balance profitability with environmental and social responsibility. This information has the potential to guide the formulation of policies, corporate strategies, and decisions made by stakeholders in the industry.

This study investigates the correlation between sustainable accounting reporting and the financial performance of oil and gas companies in Nigeria. The research aims to ascertain if SAR affects profitability in the sector through empirical data analysis. This study concentrates on financial performance as indicated by return on assets, return on equity, and earnings per share. Return on Assets (ROA) assesses the efficiency with which an organization utilizes its assets to generate profit, calculated as the ratio of net income to total assets. An elevated ROA signifies superior asset use and operational efficacy.

Statement of the Problem

The contribution of oil and gas sector to Nigerian economy is significant. As reported by Nwokeji, (2007) and Orogun (2021), this sector contributed 95% to the country foreign exchange earnings, 40% to Gross Domestic Product (GDP) and about 85% to the government revenue. Notwithstanding that the sector's catalyst to sustainable development goals, its environmental and social impact could negatively affect the society, if necessary, attention is not on oil spills, gas flaring and effective waste management practices. The environmental and ecological degradation are noticeable in the Niger Delta region (Okonkwo & Acha, 2022)

Globally, growing emphasis on environmental, social, and economic (ESE) dimensions of business has intensified calls for robust sustainability reporting, especially in environmentally sensitive sectors like oil and gas (GRI, 2021). In order to be globally competitive and for the attraction of foreign investment, there is a strong need for Nigerian oil and gas sector to comply with the international standards on sustainability disclosures (Ezeagba et al., 2017). The fact that sustainability reporting and disclosure is voluntary, was leading to inconsistent and non-standardized disclosures among oil and gas firms in Nigeria and it raises serious concern on their

accountability and transparency. Whereas, multinational companies provide comprehensive sustainability reports on economic, social and environmental impacts of the operations in line with the Global Reporting Initiative (GRI) Guidelines to enhance disclosure processes (GRI, 2021). (Eweje, 2006).

According to Ogbodo et al., (2022), gaps persist regarding the quality, depth, and credibility of the reports produced. Some companies engage in selective reporting by prioritizing disclosures on community investment initiatives while neglecting or underreporting other critical environmental issues like emissions, spillages, and pollution. ExxonMobil reported a 30% decrease in workplace injuries (2023), yet NGOs highlight inadequate contractor safety standards (P4G, 2023). TotalEnergies announced an expenditure of \$10 million on community projects in the Niger Delta, although conflicts continue (Amnesty International, 2023). Regarding GRI 302 (Energy) and 303 (Water), companies such as Shell and Chevron have reported advancements in flare reduction (e.g., Shell's 2022 report indicated a 50% reduction in gas flaring since 2018). The issue is compounded by inaccurate data resulting from third-party sabotage (e.g., pipeline vandalism). Concerning GRI 305 (Emissions), NNPC's 2021 Sustainability Report disclosed 12.5 million tonnes of CO₂e, but independent audits indicated underreporting (Sahara Reporters, 2022). This selective focus may obscure the actual environmental impacts of their operations and hinder stakeholders' capacity to make informed decisions.

Moreover, apprehensions regarding "greenwashing" have escalated inside the industry, as sustainability reports frequently emphasize favorable accomplishments while downplaying or disregarding adverse environmental impacts (Okonkwo & Acha, 2022). Insufficient disclosure of essential indicators, including hydrocarbon spills, greenhouse gas emissions, and waste management methods, severely impairs openness and diminishes the credibility of sustainability reporting as a mechanism for corporate accountability. Improving reporting standards, instituting independent verification, and promoting thorough, equitable disclosures that represent both beneficial contributions and negative impacts are crucial for genuine sustainable practices in Nigeria's oil and gas industry (Ezeagba et al., 2017).

The current literature reveals inconsistent results about the financial consequences of SAR. Certain research contends that comprehensive sustainability reporting bolsters investor trust and diminishes capital expenses (Dhaliwal et al., 2011), however others propose that excessive ESG disclosures may divert resources from primary business operations, adversely affecting profitability (Friede et al., 2015). In Nigeria, where the enforcement of sustainability reporting rules is insufficient, companies may lack the incentive to incorporate Sustainability Accounting Reporting into their financial strategies (Amaeshi et al., 2016). Prior studies shown that effective sustainability reporting can enhance corporate reputation, bolster stakeholder trust, and increase long-term profitability (Eccles et al., 2014). There is contradictory evidence concerning the impact of such disclosures on significant financial benefits, particularly in resource-dependent economies like Nigeria (Adegbite et al., 2019).

This study investigates the extent of participation by Nigerian oil and gas businesses in sustainability accounting and reporting, as well as the relationship between sustainability accounting reporting and financial performance in the sector. This study advances the discourse

on business sustainability in emerging economies by examining these subjects, offering insights for politicians, investors, and corporate executives.

2. LITERATURE REVIEW

Sustainability

Sustainability reporting is a framework that enables enterprises to disclose their environmental, social, and economic consequences to stakeholders, in accordance with sustainable development principles. It seeks to offer clarity regarding an organization's performance in these domains, allowing stakeholders to evaluate the efficacy with which the business addresses its societal, environmental, and economic impacts. The enumerated disclosures—economic, environmental, and social—align with the triple bottom line (TBL) paradigm, which underscores "people, planet, and profit" as fundamental tenets of sustainability (Elkington, 1997).

Macintosh and Wilkinson (2012) contend that sustainability disclosure aims to analyze a company's performance at a specific moment to shape corporate perceptions and legitimize their operations. Caesaria and Basuki (2017) emphasize that the sustainability disclosure process is vital for investors for two reasons. First, environmental and social performance is essential for social and environmental assessments, as financial disclosures cannot adequately convey risks. Second, there is an increasing investor emphasis on environmental and social risks as pivotal criteria for evaluating corporate governance and improvements in transparency.

Economic dimension and financial performance

Economic disclosures in sustainability reporting focus on an organization's financial performance and its broader economic contributions to society, ensuring long-term viability while supporting stakeholders. These include Economic Performance (ECP), which covers financial metrics like revenue, profit, and economic value distributed (e.g., wages, taxes); Market Performance (MKP), addressing market presence through local hiring and fair wage practices; Indirect Economic Impact (IEIP), highlighting broader effects like job creation or infrastructure investments; and Procurement Practices (PP), emphasizing sustainable sourcing to support local economies and ethical supply chains (GRI, 2020). By reporting these, organizations demonstrate their role in fostering economic stability and sustainable development, aligning with frameworks like the Global Reporting Initiative (GRI) Standards. Caesaria and Basuki (2017), Nnamani et al. (2017), Aggarwal (2013), and Burhan and Rahmanti (2012) concluded that the disclosure of the economic dimension enhances organizational financial performance by bolstering the confidence of potential investors and creditors, thus improving the organization's image.

Social dimension and financial performance

Organizational efforts to promote equity, safety, and ethical practices are the subject of social disclosures in sustainability reports. This includes the following initiatives: Employment, Training, Diversity, and Equal Opportunity (ETDE), which aims to create inclusive workplaces; Occupational Health and Safety (OHS), which prioritizes the well-being of employees; Policies to Prevent Discrimination and Child Labor (PDCL), which upholds human rights; Respect for Indigenous Rights (RIR), which protects Indigenous communities; Community Engagement and Anti-Corruption Efforts (CEACE), which fosters trust and ethical governance; Impact on Local Community (IMLC), which supports local development; Health and Safety of Products and

Services (HSPS), which ensures consumer safety; and Product Labeling, Marketing, and Customer Privacy (PLMCP), which promotes transparency and data protection (GRI, 2020). A company's dedication to transparency and stakeholder trust is shown through these disclosures. Results from Caesaria & Basuki, 2017; Platonova et al., 2017; Nevado-Peña et al., 2015 indicated that organizations' financial performance improved after disclosing the social dimension.

Environmental dimension and financial performance

Environmental disclosures highlight the importance of conserving resources and being a good steward of the environment by discussing an organization's effect on natural systems. For example, there is Energy Consumption and Emission (ECEM), which monitors emissions of greenhouse gases and energy consumption in an effort to slow global warming; Water Usage and Biodiversity (WUBA), which emphasizes conserving natural resources and minimizing human impact on them; Waste Management and Material Use (WMMU), which encourages the use of recyclable and non-hazardous materials; and Compliance with Environmental Laws and Initiatives (CELI), which checks for violations of laws and voluntary environmental pledges (GRI, 2020). These disclosures demonstrate an organization's dedication to reducing environmental impact and are in line with global sustainability goals like the UN Sustainable Development Goals. Several studies (Ezejiofor et al., 2017; Ong et al., 2016; Gatimbu & Wabwire, 2016; Nevado-Peña et al., 2015; Rokhmawatia et al., 2015; Ong et al., 2014; Ratri & Dewi, 2017; Iqbal et al., 2013; Dragomir, 2010; Olayinka & Oluwamayowa, 2014) came to the conclusion that divulging the environmental dimension enhanced the financial performance of the organization.

Financial Performance Indicator

Return on Assets (ROA) in Relation to Sustainability Reporting in the Oil and Gas Industry

A company's ability to turn its assets into profit is shown by its Return on Assets (ROA), which is determined by dividing its net income by its total assets. Under the Economic Performance (ECP) disclosure of the Global Reporting Initiative (GRI) Standards, particularly GRI 201, which highlights the production and distribution of economic value, ROA is relevant within the framework of sustainability reporting in the oil and gas industry (GRI, 2020). For oil and gas companies, which are highly capital-intensive due to investments in exploration, drilling, refining, and infrastructure, ROA provides insight into how effectively these asset-heavy operations contribute to financial performance while aligning with sustainability goals.

In sustainability reporting, a high ROA in the oil and gas sector indicates efficient asset utilization, which can reflect sustainable practices. For example, enhancing the efficiency of assets such as drilling rigs or refineries to minimize energy waste or operational downtime promotes both profitability and environmental sustainability by decreasing resource consumption and emissions, in accordance with Energy Consumption and Emission (ECEM) disclosures (GRI, 2020, GRI 302 & 305). Moreover, investments in cleaner technology or renewable energy assets can enhance ROA by decreasing operational expenses and regulatory fines, thereby aiding in Compliance with Environmental Laws and Initiatives (CELI) (GRI, 2020, GRI 307). However, a singular focus on ROA without considering environmental and social impacts—such as emissions, community displacement, or worker safety—can undermine sustainability. For example, maximizing asset use by cutting corners on safety or environmental standards may boost short-term ROA but risks long-

term financial and reputational damage, conflicting with Occupational Health and Safety (OHSA) and Community Engagement and Anti-Corruption Efforts (CEACE) disclosures (GRI, 2020, GRI 403 & 413).

Thus, in sustainability reporting, oil and gas companies must balance ROA with environmental and social disclosures to ensure that asset efficiency supports broader sustainability objectives. Reporting ROA alongside metrics like emission reductions or community investments provides stakeholders with a holistic view of how financial performance aligns with sustainable development, as emphasized by Elkington's (1997) triple bottom line framework of people, planet, and profit.

Theoretical Framework

Legitimacy Theory

Lindblom (1993) defined legitimacy as- “a condition which exists when an entity's value system is in harmony with the value system of society.” According to this theory, it is essential to meet the societal norms and expectations to ensure the survival of firm in long-term. The proponents of legitimacy theory (Patten, 1992; Deegan, 2000) argue that sustainability reporting tends to reduce the risk of regulatory actions and boycotts by stakeholders, and it strengthens the firm's license to operate.

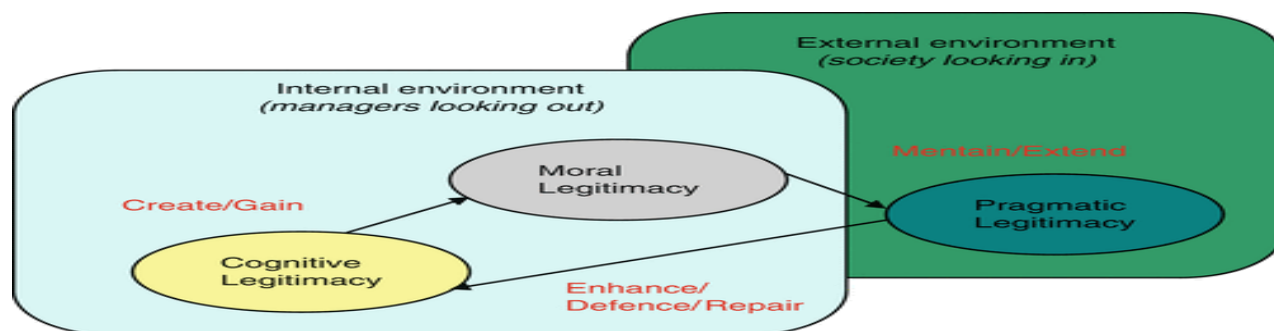


Fig. 1 Legitimacy Theory

Source: SpringerLink

This diagram explains the relationships between different types of organizational legitimacy—cognitive, moral, and pragmatic—and how they interact with the internal and external environments of an organization. It illustrates how organizations navigate between internal and external environments to establish, maintain, or repair their legitimacy using cognitive, moral, and pragmatic approaches. The interactions show a progression from gaining internal trust to securing external validation and support. Internal efforts to create or gain legitimacy often transition into moral legitimacy as organizations align with ethical norms and values. Moral alignment with societal expectations feeds into pragmatic legitimacy, as external stakeholders begin to trust and support the organization.

Internal Environment (Managers Looking Out) refers to the organization's internal perspective where managers strive to establish, enhance, or repair legitimacy. The focus is on how the organization creates legitimacy and aligns with societal expectations. External Environment

(Society Looking In) represents the perspective of society or external stakeholders, who evaluate the organization's actions, values, and performance. The organization's goal here is to maintain or extend its legitimacy.

Cognitive Legitimacy is based on the perception that the organization's activities are comprehensible, predictable, and aligned with established norms. Emphasis is on creating and gaining legitimacy by ensuring alignment with societal norms and expectations while moral legitimacy is based on the ethical judgment of the organization's actions and whether they are the right thing to do. Focus is on defending or enhancing legitimacy to meet ethical and moral standards, whereas, pragmatic legitimacy is rooted in the self-interests of external stakeholders, such as customers or investors, who value the organization for its practical benefits. Efforts are aimed at maintaining or extending legitimacy by delivering tangible benefits to stakeholders.

Stakeholder theory

Stakeholders are individuals, groups, or organizations that can affect or be affected by a firm's activities and choices. The stakeholder theory was proposed by Freeman in 1984. The idea delineates stakeholders of a corporation as employees, shareholders, investors, society, consumers, government, competitors, and all anyone impacted directly or indirectly by the firm's operations. According to Freeman (1984), the stakeholder theory upholds that firms have accountability towards a broad range of stakeholders, apart from shareholders, i.e. creditors, customers, suppliers, employees, government, community, environment, future generations, etc. King (2002) recognized the significance of integrated sustainability reporting in strengthening the relationship between firm and society in which it operates. Neglecting stakeholder interests may tarnish the firm's public image, adversely impacting its financial performance.

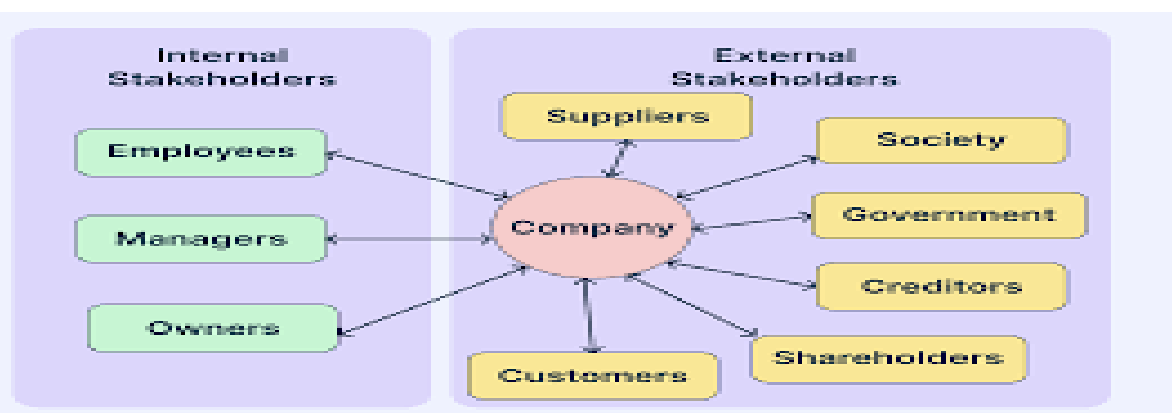


Fig 2 Stakeholder Theory

This diagram represents the relationships between a company and its internal and external stakeholders. It highlights how various groups are interconnected with the organization, demonstrating their roles and influence.

Employees, managers, and owners contribute directly to the company's operations and strategy. The company relies on them for smooth functioning and growth. The company provides goods,

services, and value to customers and society. It maintains relationships with suppliers, adheres to government regulations, and meets obligations to creditors and shareholders. The success of the company depends on the support and cooperation of both internal and external stakeholders. Stakeholder interests can sometimes conflict (e.g., shareholder profits vs. employee wages), requiring the company to manage these relationships carefully.

The diagram emphasizes the importance of stakeholder management. A company must engage with its stakeholders effectively to ensure mutual benefit, compliance, and long-term viability.

This study is grounded in stakeholder theory, which emphasizes the obligation of enterprises to consider their impact on the entire environment and to engage in activities that would benefit it.

Empirical Review

In their assessment of sustainability reporting in the Nigerian oil and gas industry, Asaolu et al. (2011) used content analysis to determine the degree of compliance with global best practices in reporting financial and non-financial activities. The study found that all of the sampled companies had arbitrary and incompatible sustainability reporting indicators, leading them to recommend the implementation of a sustainability reporting framework in line with global best practices in the Nigerian

In 2018 Etale and Otuya looked at how financial performance of Nigerian listed oil and gas businesses related to environmental responsibility reporting. The study made use of secondary data drawn from 13 oil and gas businesses listed on the Nigeria Stock Exchange (NSE) for the years 2012–2017. The main method of data analysis used in the research was ordinary least squares (OLS) regression. Within Nigeria's oil and gas sector, the study found a quite strong positive association between financial performance and environmental responsibility reporting. The results of the study show that environmental responsibility reporting in Nigeria is still in its early years; companies in the oil and gas industry reveal very little about the environmental effect of their activities. Given most of the world's oil and gas companies are not listed on the NSE and so were not included in the study, this result is not especially shocking.

Erhirhie and Ekwueme (2019) assessed the effect of corporate social sustainability reporting on Return on Assets, Return on Equity, and Return on Capital Employed of oil and gas companies listed on the Nigeria Stock Exchange. A sample of ten oil and gas corporations was utilised for the investigation. The research employed secondary data obtained through financial ratios, company accounts, and content analysis. The results indicated that social sustainability reporting adversely impacts return on equity. The study advised, among other things, that current sustainability reporting requirements be adjusted to address country-specific social and environmental concerns, and that their implementation should be mandatory rather than voluntary.

Sustainability accounting disclosure and the financial performance of Nigerian enterprises were investigated by Ibida and Onuora (2019). Both content analysis and an ex post facto research design were employed in the study. The study's data came from the selected Nigerian oil and gas companies' annual reports and financial statements. The researchers used Pearson's correlation analysis to test our hypotheses. Environmental protection accounting was found to have a strong relationship with the return on equity of oil and gas companies in Nigeria, according to the analysis. Additionally, the study found that oil and gas companies in Nigeria had a positive relationship

between CSR and return on equity. Accounting for research and development has a strong relationship with the return on equity of oil and gas companies in Nigeria.

Nasiru et al (2020) empirically examined the bi-directional relationship between sustainability activities and the financial performance of oil and gas companies in Nigeria. Secondary data were gathered from six oil companies over a period of fifteen years. The document is founded on stakeholder and institutional ideas. Eight multivariate regression models and Granger causality models were developed for the empirical investigation, employing STATA version 15 for the examination. The data from the paper indicated reciprocal positive connections, signifying that sustainability initiatives are profitable and that profitability enhances sustainability activities, so creating a virtuous cycle of positive feedback. The research consequently advised oil companies to prioritise the measurement and segmentation of information into quantifiable components to elucidate both the successes and failures, if any, of sustainability investments.

2020's Syder, Ogbonna and Akani looked at how sustainability accounting reports affected the shareholder value of Nigerian listed oil and gas businesses. The study applied ex-post facto and cross-sectional research designs. The study sample was deliberately chosen just for those businesses running both upstream and downstream operations in the sector. Content analysis of the annual corporate reports of pertinent companies as well as the Nigerian Stock Exchange from 2009 to 2018 helped to obtain secondary data. Using the Augmented Dickey-Fuller unit root test, error correction model, co-integration, and multiple regressions, the paper applied the Autoregressive Distributed Lag (ARDL) bound test, descriptive statistics, model estimations, and diagnostic analyses. The study's findings demonstrated that investments in employee training and community development positively and significantly influenced the shareholder value added of the enterprises. The expense of environmental compliance does not impact the shareholder value added of the chosen enterprises.

Akpan and Simeon (2021) examined the effect of sustainability disclosures on cash flow return on investment of shareholders of oil and gas companies in Nigeria. Ex post facto research design was used, using a secondary data source. Comprising a seven-year period from 2014 to 2020, the research used time series and cross-sectional analysis of particular oil and gas businesses listed on the Nigeria Stock Exchange as of December 31, 2020. Data for the sustainability measures was gathered using methods of content analysis. The hypotheses were evaluated by the researcher using the strong panel least squares regression approach. The findings of the study showed that disclosure of social sustainability issues greatly increases the cash flow return on investment of publicly traded oil and gas firms in Nigeria.

Aminu et al (2022) examined the effect of sustainability disclosure on financial performance of selected listed oil and gas firms in Nigeria. Using secondary data derived from ten publicly traded oil and gas businesses on the Nigerian Stock Exchange, spanning a five-year period from 2016 to 2020, the study made. This study used ex-post facto design as its research approach. We investigated the extent to which the sustainability disclosures of the selected companies affect financial performance using the panel regression estimate approach. Results of this study showed that financial performance is statistically significantly improved by disclosure of environmental sustainability. The study revealed that the financial performance of several publicly traded companies in Nigeria was statistically minimally affected by disclosure of social sustainability and economic sustainability. The study found that disclosure of environmental sustainability has improved the financial situation of the investigated companies. Still, the disclosure of economic

social sustainability has no appreciable effect on the financial situation of several publicly traded oil and gas corporations in Nigeria.

Saleh et al (2022) investigated the effect of sustainability disclosure on the market value of Oil and Gas firms listed in Nigeria. As of December 31, 2020, the study population consists of all ten (10) Oil and Gas businesses in Nigeria. Information was gathered from ten publicly traded Oil and Gas firms in Nigeria over a five-year period (2016–2020) using a secondary data source from the annual reports and accounts. A method of data analysis used was ordinary least squares regression. While Tobin's Q acted as a proxy for corporate market value, the study used the GRI and Carroll's index to classify disclosure items into Philanthropic, Legal/Ethical, and Economic activities, therefore reflecting sustainable disclosure. According to the report, the market value of oil and gas companies registered on the Nigerian Stock Exchange is favourably and much influenced by ethical and legal activities as well as economic ones.

Etim and Akpan (2023) carried out a study to ascertain the effect of sustainability disclosure on financial performance of oil and gas companies listed on the floor of the Nigeria Exchange Group for the period 2012-2021. The study's dependent variable, financial performance, was represented by return on capital employed (ROCE), whereas the independent variable, sustainability disclosure, was represented by the disclosure of social, economic, environmental, and governance practices. The study employed an ex post facto research approach, utilising secondary data, and investigated four hypotheses through panel data regression analysis. The analysis indicated that disclosures related to social sustainability, economic sustainability, environmental sustainability, and governance significantly enhance the return on capital used for oil and gas corporations in Nigeria.

Soomiyol et al (2023) examined the effect of sustainability reporting on the performance of sampled Oil and Gas firms in Nigeria. This study employed the judgemental sampling method to choose eight publicly listed oil and gas companies in Nigeria as of December 31, 2019. It encompassed a decade (2010-2019). Performance, shown by return on assets (ROA), served as the dependent variable, while sustainability reporting was represented by economic, environmental, and social reporting. The results of the model revealed that 69.51% of the total variance in the financial performance of the investigated oil and gas companies in Nigeria could be explained by the explanatory factors. According to the findings, the return on assets (ROA) of the evaluated oil and gas companies in Nigeria showed a quite positive effect from economic reporting (ECONR). Still, environmental reporting (ENVR) reduced the chosen oil and gas businesses' return on assets (ROA) in Nigeria. Environmental reporting has rather significant statistical impact. With the return on assets (ROA) of the investigated oil and gas businesses in Nigeria, social reporting (SOCR) showed a good link. The financial situation of the chosen Oil and Gas firms in Nigeria is not much influenced by social reporting.

Nwankwo (2023) study determined the effect of sustainability reporting on corporate financial performance of oil and gas companies listed on the Nigerian Exchange Group (NGX). Six (6) of these firms were selected using a stratified random sampling technique. Whereas return on assets (ROA) was chosen as financial performance indicator, the proxies for sustainability reporting are Environmental Information Disclosure, Social Information Disclosure and Economic Information Disclosure. Pairwise Pearson Rank Correlation Coefficient and Panel Least Squares (PLS) Regression analyses were used on data. According to the study, social information disclosure has a little but positive effect on yearly profit; environmental information disclosure has an

insignificant and negative impact on annual profit. Luckily, for the year of the sampled oil and gas companies in Nigeria, economic information disclosure has rather large and positive influence on profit. Sustainable development depends on sustainability reporting, then.

Nnamani et al (2024) examined whether there is a relationship between sustainability accounting disclosure and financial performance of Nigerian firms. The study examined the impact of corporate social responsibility, research and development accounting, and environmental protection accounting on the return on equity of Nigerian oil and gas businesses. The study utilised an ex post facto research design and content analysis. Data for the study was obtained from the company's annual reports and financial statements in Nigeria. Formulated hypotheses were evaluated utilising Pearson Correlation. The analysis indicated that corporate social responsibility positively and significantly influenced the return on equity of Nigerian oil and gas companies. Additionally, research and development accounting also had a positive and significant effect on return on equity. Conversely, environmental protection accounting exhibited a negative but statistically insignificant effect on return on equity in these companies.

Anyadufu, et al (2024) examined the effect Environmental accounting reporting and social sustainability disclosures influence on financial performance of oil and gas firms in Nigeria. This research employed an ex-post facto design; utilising content analysis and secondary information derived from 10 oil and gas companies listed on the Nigerian Exchange Group (NGX) as of 2022 from the NSE Factbook and annual reports. The figures included years 2015 to 2021. Particularly looking at the effects of social sustainability disclosures and environmental accounting reporting on business performance was the research. Net assets per share stood in for the dependent variable of company performance; social sustainability disclosure and environmental accounting reporting were the independent variables. Based on the Global Reporting Initiative (GRI), these were evaluated using a dichotomous approach whereby items related to environmental and social sustainability disclosure included in the annual report received a score of "1" and items not disclosed received a score of "0". It was found that the relationship between environmental accounting reporting and net assets per share (NAPS) was positive and statistically significant, meaning that improvements in corporate environmental policies proportionately raised their net assets per share (NAPS). Social sustainability disclosure and net assets per share (NAPS) showed a really strong positive association.

Gaps in the Empirical Review

The existing literature on sustainability accounting and financial performance of oil and gas firms in Nigeria reveals several gaps that this study seeks to address. Most prior research, such as those by Asaolu et al. (2011) and Etale & Otuya (2020), highlights inconsistent sustainability reporting frameworks and underdeveloped environmental responsibility reporting in the sector. Furthermore, research conducted by Akpan & Simeon (2021) and Aminu et al. (2022) emphasises particular facets of sustainability reporting—namely environmental or social disclosure—lacking a holistic examination that encompasses all three dimensions (economic, environmental, and social) as delineated by the Global Reporting Initiative (GRI). This study utilises a comprehensive dataset from 2014 to 2023 and employs panel data regression, facilitating a more rigorous analysis of the dynamic relationships between sustainability practices and financial performance, unlike some studies that rely on cross-sectional data or a restricted time frame.

Another obvious discrepancy in earlier research is the contradicting results about the link between

financial performance and sustainability disclosures. As with the results of Soomiyol et al. (2023), some researchers (e.g., Erhirhie & Ekwueme, 2019; Nnamani et al., 2024) claim positive benefits of sustainability activities on metrics like return on equity and shareholder value; others identify either neutral or even negative effects. Often ascribed to variations in analytical approaches, proxies used for sustainability disclosures, and the absence of standardised reporting measures catered to Nigeria's particular environmental and regulatory environment, these discrepancies Focussing on return on assets (ROA), this paper seeks to close these gaps by fully leveraging the GRI methodology across all sustainability dimensions. Moreover, it takes into account the wider consequences for matching Nigeria's oil and gas industry with world ESG criteria and Sustainable Development Goals (SDGs), thereby promoting a better knowledge of how sustainability accounting generates long-term value in the Nigerian setting.

3. METHODOLOGY

The design of this study is ex post facto. This is because the design that was chosen looks at the potential impact of the independent variable on the dependent variable. Nine (9) oil and gas businesses that were listed on the Nigerian Exchange Group (NGX) as of December 31, 2023, are included in the research population. The study used eight (8) oil and gas companies; these companies were purposefully selected based on the availability of the annual reports over a period of ten (10) years from 2014-2023. The basis for selecting 2013 as the commencement period is in line with requirements of the Securities & Exchange Commission Rules & Regulations 2013 that mandated companies to report their sustainability initiatives. Secondary data were extracted for the period under review from annual reports and accounts of the firms under study. To examine the influence of sustainability disclosure financial performance of the selected companies, the study adopted content analysis and panel data regression models for the analysis of the dependent and independent variables of the study.

Independent variables are proxied based on Global Reporting Initiative (GRI) 2013. The sustainability disclosures are classified into three headings, economic sustainability disclosure, Environmental sustainability disclosure and social sustainability disclosures. Environmental and social disclosures were assessed using a dichotomous method by the Global Reporting Initiative (GRI), whereby a score of "1" was allocated to each item pertaining to economic, environmental, and social sustainability disclosed in the annual report, and a score of "0" was given for items that were not disclosed. The dependent variable of firm performance was represented by Return on Assets (ROA). Return on Assets (ROA) assesses the efficiency with which a company utilises its assets to produce profit. It indicates the profit margin relative to the company's total assets. A greater ROA implies that the company is leveraging its assets successfully to create earnings.

Table 1: Population Sample

	Company	Date Incorporated
1.	Aradel Holdings Plc	March 25, 1992
2.	Conoil Plc	June 30, 1970
3.	Eternal Oil Plc	January 13, 1989
4.	JAPAU Gold & Ventures Plc	June 29, 1994
5.	Mrs Oil Nigeria Plc	August 12, 1969
6.	Oando Plc	August 25, 1969
7.	Seplat Energy Plc	June 17, 2009
8.	Total Energies Marketing Nigeria Plc	January 6, 1956

Source: Author's Computation (2024)

Model Specification

The following model is specified to test the formulated hypotheses of the study:

$$ROA_{it} = \alpha + \beta_1 ECP_{it} + \beta_2 MKP_{it} + \beta_3 IEIP_{it} + \beta_4 PCT_{it} + \epsilon_{it} \quad (1)$$

$$ROA_{it} = \alpha + \beta_1 ECEM_{it} + \beta_2 WUBA_{it} + \beta_3 WMMU_{it} + \beta_4 CELI_{it} + \epsilon_{it} \quad (2)$$

$$ROA_{it} = \alpha + \beta_1 ETDEO_{it} + \beta_2 OHSA_{it} + \beta_3 PDCL_{it} + \beta_4 RIR_{it} + \beta_5 CEACE_{it} + \beta_6 IMLC_{it} + \beta_7 HSPS_{it} + \beta_8 PLMCP_{it} + \epsilon_{it} \quad (3)$$

Where:

Economic Disclosure

ECP = Economic Performance

MKP= Market Performance

IEIP= Indirect Economic Impact

PP= Procurement Practices

Environmental Disclosure

ECM = Energy Consumption and Emission

WUBA= Water Usage and Biodiversity

WMMU= Waste Management and Material Use

CELI= Compliance with Environmental Laws and Initiatives

Social Disclosure

ETDEO= Employment, Training, Diversity and Equal Opportunity

OHSA= Occupational, Health and Safety Awareness

PDCL= Policies to prevent Discrimination and Child Labour

RIR= Respect for Indigenous Rights

CEACE= Community Engagement and Anti-Corruption Efforts

IMLC= Impact on Local Community

HSPS= Health and Safety of Products and Services

PLMCP= Product Labeling, Market and Customer Privacy

ROA= Return on Assets

4. RESULTS AND DISCUSSION

This study investigates the impact of different disclosure types—economic, environmental, and social—on the return on assets (ROA) of firms. ROA serves as the dependent variable, representing firm profitability, while disclosure variables act as independent predictors. The findings provide insights into which aspects of corporate sustainability reporting influence

financial performance.

Economic Sustainability Disclosure

Table 2: Descriptive Summary

	ROA	ECP	MKP	IEIP	PP
Mean	0.002535	1.003758	1.000324	1.002317	1.000369
Median	0.029038	1.002566	1.000321	1.002517	0.997698
Maximum	0.993316	1.044406	1.053324	1.042180	1.065525
Minimum	-1.019846	0.939309	0.949847	0.965037	0.928426
Std. Dev.	0.195801	0.020455	0.020827	0.018457	0.021026
Skewness	-0.657779	-0.205898	0.200427	0.080365	-0.211575
Kurtosis	19.27221	3.170229	2.943692	2.328982	4.193028
Observations	80	80	80	80	80

Source: Authors' Computation with EvIEWS v9 (2025)

The descriptive summary in table 2 presents statistical metrics for Return on Assets (ROA) and four independent variables—Economic Performance (ECP), Market Performance (MKP), Indirect Economic Impact (IEIP), and Procurement Practices (PP)—derived from a balanced panel dataset of 80 observations, covering 8 firms over 10 years (2014–2023). ROA displays a mean of 0.002535, a median of 0.029038, and a broad range from -1.019846 to 0.993316, with a standard deviation of 0.195801, indicating considerable variability in firm profitability. The negative skewness (-0.657779) and elevated kurtosis (19.27221) of ROA suggest a left-skewed distribution with heavy tails, pointing to the presence of significant negative outliers, possibly reflecting substantial losses in certain firms or periods.

Conversely, ECP, MKP, IEIP, and PP are closely distributed around 1, with means of 1.003758, 1.000324, 1.002317, and 1.000369, respectively, and low standard deviations (0.020455, 0.020827, 0.018457, and 0.021026), signifying stable and uniform metrics across the sample. ECP and PP show slight left skewness (-0.205898 and -0.211575), MKP exhibits minor right skewness (0.200427), and IEIP is nearly symmetric (0.080365). Kurtosis values for ECP (3.170229), MKP (2.943692), and IEIP (2.328982) are near normal, while PP's kurtosis (4.193028) indicates a slightly leptokurtic distribution, suggesting some outliers. These properties imply that the independent variables are likely standardized indices or ratios, consistently measured over time and across firms.

Table 3: Correlation Matrix

	ROA	ECP	MKP	IEIP	PP
ROA	1.00	0.04	-0.17	-0.29	-0.02
ECP	0.04	1.00	0.09	0.15	-0.09
MKP	-0.17	0.09	1.00	-0.06	0.19
IEIP	-0.29	0.15	-0.06	1.00	-0.04
PP	-0.02	-0.09	0.19	-0.04	1.00

Source: Authors' Computation with EvIEWS v9 (2025)

The correlation matrix in Table 3 outlines the pairwise relationships between Return on Assets (ROA) and the independent variables—Economic Performance (ECP), Market Performance (MKP), Indirect Economic Impact (IEIP), and Procurement Practices (PP)—based on a panel dataset. ROA exhibits a weak positive correlation with ECP (0.04), a weak negative correlation with MKP (-0.17), a moderate negative correlation with IEIP (-0.29), and a negligible negative correlation with PP (-0.02). The moderate negative correlation with IEIP suggests that higher indirect economic impacts may be associated with reduced profitability, potentially due to costs or inefficiencies, while the weak or negligible correlations with ECP and PP indicate minimal linear influence on ROA.

Among the independent variables, correlations are generally low, with the strongest being 0.19 between MKP and PP and 0.15 between ECP and IEIP, while other pairwise correlations remain below 0.1. These low inter-variable correlations indicate minimal multicollinearity, suggesting that the independent variables are sufficiently distinct to provide reliable coefficient estimates in a regression model. The weak correlations between ROA and the independent variables imply that no single factor strongly drives profitability in isolation, highlighting the importance of a multivariate approach to assess their combined effects.

Table 4: Regression Analysis

Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 2014 2023				
Periods included: 10				
Cross-sections included: 8				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECP	1.039034	1.053799	0.985988	0.3273
MKP	-1.890464	1.040612	-1.816685	0.0733
IEIP	-3.337932	1.158997	-2.880017	0.0052
PP	0.172163	1.029018	0.167308	0.8676
C	4.024112	1.998458	2.013609	0.0476
R-squared	0.129064	Mean dependent var		0.002535
Adjusted R-squared	0.082614	S.D. dependent var		0.195801
S.E. of regression	0.187539	Durbin-Watson stat		1.602627
Sum squared resid	2.637802	F-statistic		2.778561
Log likelihood	22.96815	Prob(F-statistic)		0.032801

Source: Authors' Computation with Eviews v9 (2025)

The regression analysis employs a panel least squares model to examine the relationship between Return on Assets (ROA) and the independent variables—Economic Performance (ECP), Market Performance (MKP), Indirect Economic Impact (IEIP), and Procurement Practices (PP). The analysis is based on a balanced panel of 80 observations from 8 firms over 10 years (2014–2023). The results show that IEIP has a significant negative effect on ROA ($\beta = -3.337932$, $p = 0.0052$),

indicating that a 1-unit increase in IEIP reduces ROA by approximately 3.34 units, suggesting that indirect economic activities, such as community investments or externalities, may impose costs that lower profitability. MKP is marginally significant ($\beta = -1.890464$, $p = 0.0733$), implying a modest negative impact, possibly due to competitive pressures or market-related costs.

In contrast, ECP ($\beta = 1.039034$, $p = 0.3273$) and PP ($\beta = 0.172163$, $p = 0.8676$) are not statistically significant, indicating that economic performance and procurement practices do not have a measurable impact on ROA in this model. The constant term ($\alpha = 4.024112$, $p = 0.0476$) is significant at the 5% level, suggesting a baseline ROA when all independent variables are zero, though this may lack practical meaning given the normalized nature of the variables. The model's R-squared is 0.129064, explaining 12.9% of ROA variability, while the adjusted R-squared is 0.082614, reflecting limited explanatory power after accounting for degrees of freedom.

The overall model is significant, as indicated by the F-statistic (2.778561, $p = 0.032801$), confirming that the independent variables collectively influence ROA. The Durbin-Watson statistic (1.602627) is close to 2, suggesting no significant autocorrelation in the residuals, which supports the reliability of the regression results. Residual diagnostics show a standard error of regression of 0.187539, indicating moderate prediction error, a sum of squared residuals of 2.637802, and a log likelihood of 22.96815. The low R-squared suggests that other unmodeled factors, such as firm size, industry, or macroeconomic conditions, may play a significant role in explaining ROA variability.

Environmental Sustainability Disclosure

Table 5: Descriptive Summary

	ROA	ECEM	WUBA	WMMU	CELI
Mean	0.002535	0.121035	0.131584	0.226036	0.749020
Median	0.029038	0.018510	0.030975	0.020336	0.941945
Maximum	0.993316	1.136957	1.093072	1.264026	1.168618
Minimum	-1.019846	-0.209237	-0.201728	-0.226947	-0.204280
Std. Dev.	0.195801	0.334868	0.345364	0.432312	0.439289
Observations	80	80	80	80	80

Source: Authors' Computation with Eviews v9 (2025)

Table 5 presents the descriptive statistics for the variables ROA, ECEM, WUBA, WMMU, and CELI. The mean values for ROA, ECEM, WUBA, WMMU, and CELI are 0.002535, 0.121035, 0.131584, 0.226036, and 0.749020, respectively. However, the wide range (-1.0198 to 0.9933) and high standard deviation (0.1958) suggest significant variations in the firm performance. ECEM and WUBA have low mean values, indicating that firms disclosed limited information about energy consumption, emissions and waste management.

CELI has the highest mean value, suggesting that the firms prioritize compliance with environmental law and initiative more than environmental factor. The high standard deviations of ECEM, WUBA, WMMU, and CELI indicate substantial variation in environmental disclosures across firms

Table 6: Correlation Matrix

	ROA	ECEM	WUBA	WMMU	CELI
ROA	1	0.17	0.19	0.12	-0.10
ECEM	0.17	1	0.92	0.61	0.23
WUBA	0.19	0.92	1	0.67	0.27
WMMU	0.12	0.61	0.67	1	0.33
CELI	-0.10	0.23	0.27	0.33	1

Source: Authors' Computation with Eviews v9 (2025)

Table 6 displays the correlation matrix among ROA, ECCEM, WUBA, WMMU, and CELI. ROA shows a positive correlation with ECCEM (0.17), WUBA (0.19), and WMMU (0.12), while it has a negative correlation with CELI (-0.10). ECCEM exhibits strong positive correlations with WUBA (0.92), WMMU (0.61), and a weaker positive correlation with CELI (0.23). suggesting that firm disclosing more about waste management and energy consumption tend to have slightly higher profit. CELI has a weak negative correlation with ROA (-0.10) indicating that compliance with environmental legal disclosures may slightly reduce profitability. The high correlation between ECCEM and WUBA (0.92) suggests that firms reporting energy consumption/emission also tends to disclose waste utilization and biodiversity awareness. WUBA and WMMU (0.67) are also highly correlated, indicating that firms managing waste often focus on water management as well.

Table 7: Regression Analysis

Dependent Variable: ROA

Method: Panel Least Squares

Date: 02/08/25 Time: 15:23

Sample: 2014 2023

Periods included: 10

Cross-sections included: 8

Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECCEM	-0.011189	0.169196	-0.066130	0.9475
WUBA	0.131294	0.176415	0.744234	0.4591
WMMU	0.012513	0.070081	0.178545	0.8588
CELI	-0.076303	0.053074	-1.437677	0.1547
C	0.040937	0.043387	0.943538	0.3484
R-squared	0.060570	Mean dependent var		0.002535
Adjusted R-squared	0.010467	S.D. dependent var		0.195801
S.E. of regression	0.194773	Akaike info criterion		-0.373499
Sum squared resid	2.845248	Schwarz criterion		-0.224622
Log likelihood	19.93997	Hannan-Quinn criter.		-0.313810
F-statistic	1.208916	Durbin-Watson stat		1.638176
Prob(F-statistic)	0.314155			

Source: Authors' Computation with Eviews v9 (2025)

Table 7 presents the results of the regression analysis with ROA as the dependent variable. The method used was Panel Least Squares, with data spanning from 2014 to 2023, including 10 periods and 8 cross-sections, totaling 80 balanced observations. The coefficient for ECEM is -0.011189 with a t-statistic of -0.066130 and a p-value of 0.9475.

The regression analysis reveals that none of these environmental disclosure variables have a statistically significant effect on ROA. The coefficients for ECEM (-0.0112, $p = 0.9475$), WUBA (0.1313, $p = 0.4591$), WMMU (0.0125, $p = 0.8588$), and CELI (-0.0763, $p = 0.1547$) suggest minimal impact on firm profitability. The overall model fit is poor, with an R-squared value of 0.0606, meaning that only 6.06% of the variance in ROA is explained by environmental disclosures. Additionally, the F-statistic is insignificant ($p = 0.3142$), further confirming that environmental disclosures do not meaningfully impact ROA. This implies that firms disclosing more environmental information do not experience significant changes in profitability, possibly because such initiatives take time to yield financial returns.

Social Sustainability Disclosure

Table 8: Descriptive Summary

	ROA	ETDE O	OHSA	PDCL	RIR	CEAC E	IMLC	HSPS	PLMCP
Mean	0.002 535	1.003 356	0.998 925	1.000 724	0.62541 2	0.9987 30	0.998 062	1.0014 12	1.00182 6
Median	0.029 038	1.003 595	0.997 328	1.001 327	0.98241 9	1.0001 21	0.999 746	1.0028 49	1.00450 1
Maximum	0.993 316	1.043 453	1.069 585	1.051 454	1.04243 8	1.0522 78	1.044 336	1.0483 76	1.04656 8
Minimum	- 1.0198 46	0.951 879	0.955 394	0.946 400	- 0.022167	0.9530 97	0.941 883	0.9453 54	0.95525 1
Std. Dev.	0.195 801	0.018 587	0.020 411	0.021 392	0.48617 0	0.0198 23	0.020 598	0.0193 03	0.01946 7
Obs	80	80	80	80	80	80	80	80	80

Source: Authors' Computation with Eviews v9 (2025)

In the Table 8, ROA has a wide range (-1.0198 to 0.9933) and a high standard deviation (0.1958), indicating significant variation in profitability across firms. Some firms are highly profitable, while others experience heavy losses. RIR has the lowest mean (0.6254) and the highest standard deviation (0.4862), suggesting that firms disclose risk-related information at varying levels. This variation could be due to differences in risk exposure, industry regulations, or internal disclosure policies among firms. Most social disclosure variables have means close to 1.000 and small standard deviations, indicating that firms disclose similar levels of information on employee training, occupational health, consumer protection, and community engagement. This suggests compliance with social responsibility standards and regulatory requirements. The high consistency

in disclosure levels further implies that firms follow standardized sustainability reporting practices. However, RIR stands out as an exception, showing the most variability in disclosures, suggesting that risk-related transparency is not as uniformly practiced as other aspects of social disclosure.

Table 9: Correlation Matrix

	ROA	ETDEO	OHSA	PDCL	RIR	CEACE	IMLC	HSPS	PLMCP
ROA	1	-0.04	0.08	0.07	0.29	0.01	-0.08	-0.02	0.13
ETDEO	-0.04	1	-0.11	0.21	0.18	0.09	-0.05	-0.00	0.15
OHSA	0.08	-0.11	1	-0.15	-0.00	0.11	0.00	-0.00	-0.07
PDCL	0.07	0.21	-0.15	1	-0.03	-0.00	-0.16	0.09	-0.02
RIR	0.29	0.18	-0.00	-0.03	1	0.07	0.11	0.19	0.14
CEACE	0.01	0.09	0.11	-0.00	0.07	1	0.18	0.18	0.20
IMLC	-0.08	-0.05	0.01	-0.16	0.11	0.18	1	0.08	0.06
HSPS	-0.02	-0.00	-0.00	0.09	0.19	0.18	0.08	1	-0.07
PLMCP	0.13	0.15	-0.07	-0.02	0.14	0.20	0.06	-0.07	1

Source: Authors' Computation with Eviews v9 (2025)

Table 9 presents the correlation matrix for ROA and the social sustainability disclosure variables. ROA shows a positive correlation with OHSA (0.08), PDCL (0.07), RIR (0.29), CEACE (0.01), and PLMCP (0.13). Conversely, ROA exhibits a negative correlation with ETDE (-0.04), IMLC (-0.08), and HSPS (-0.02). RIR has the strongest positive correlation with ROA (0.29) among the social sustainability variables.

Among the social sustainability variables, notable correlations include ETDEO being positively correlated with PDCL (0.21) and RIR (0.18), and negatively correlated with OHSA (-0.11). CEACE shows positive correlations with IMLC (0.18)

Table 10: Regression Analysis

. Dependent Variable: ROA

Method: Panel Least Squares

Date: 02/08/25 Time: 15:45

Sample: 2014 2023

Periods included: 10

Cross-sections included: 8

Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ETDEO	-1.372673	1.228450	-1.117402	0.2676
OHSA	0.903922	1.083942	0.833921	0.4071
PDCL	0.993849	1.059818	0.937754	0.3515
RIR	0.131157	0.046687	2.809294	0.0064
CEACE	-0.012602	1.161957	-0.010846	0.9914
IMLC	-1.028629	1.087220	-0.946109	0.3473
HSPS	-0.798576	1.174818	-0.679745	0.4989
PLMCP	1.170216	1.163885	1.005440	0.3181
C	0.066843	2.770944	0.024123	0.9808
R-squared	0.140463	Mean dependent var		0.002535
Adjusted R-squared	0.043614	S.D. dependent var		0.195801
S.E. of regression	0.191483	Akaike info criterion		-0.362379
Sum squared resid	2.603276	Schwarz criterion		-0.094401
Log likelihood	23.49516	Hannan-Quinn criter.		-0.254939
F-statistic	1.450332	Durbin-Watson stat		1.637542
Prob(F-statistic)	0.191167			

Source: Authors' Computation with Eviews v9 (2025)

The regression results in Table 10 confirm that RIR is the only significant predictor of ROA among social disclosure variables, with a coefficient of 0.1312 ($p = 0.0064$), indicating that firms with better RIR practices tend to experience higher profitability. Other variables, such as Employee Training, Diversity and Equal Opportunity (ETDEO), Occupational Health & Safety Awareness (OHSA), Policies to prevent Discrimination and Child Labour (PDCL), and Community Engagement & Anti-Corruption Efforts (CEACE), do not significantly influence ROA. The model's explanatory power is relatively weak, with an R-squared value of 0.1405, meaning that 14.05% of ROA variation is explained by these social disclosure variables. The F-statistic p-value (0.1912) suggests that, overall, the model is not statistically significant. Despite this, the strong significance of RIR implies that firms focusing on respect for indigenous rights and incident disclosure tend to perform better financially

5. DISCUSSION OF FINDINGS

Using Return on Assets (ROA) as the dependent variable, the study looked at how sustainability disclosures—economic, environmental, and social—might affect the financial performance of

Nigerian oil and gas companies. The data showed that ROA is more significantly correlated with social and economic disclosures than with environmental disclosures. Negative but rather modestly significant effects of market performance (MKP) suggest that market-related disclosures might not immediately translate into higher profitability. On the other hand, Respect for indigenous right (RIR) improved ROA, so stressing the need of open risk control in promoting financial performance

By contrast, since none of the environmental factors (ECEM, WUVA, WMMU, CELI) were statistically significant, environmental disclosures had no appreciable effect on ROA. This implies that companies might not be using sustainability practices connected to environmental issues sufficiently to affect profitability or that they might not be immediately profitable. These results suggest that although social and economic disclosures can affect financial performance, environmental sustainability initiatives could take more time to show in financial measures or could be seen as compliance actions instead of value-adding projects. These findings show the need of strategic decision-making about company disclosures. Future studies could investigate the long-term effects of these revelations to find whether environmental projects finally help to increase profitability over time.

The study aligns with the arguments of Etale and Otuya (2020), who suggest that the lack of a significant relationship between environmental disclosure and financial performance could be attributed to the superficial or inadequate implementation of environmental management practices within Nigeria's oil and gas sector. In many cases, environmental disclosures may be more symbolic than substantive, failing to translate into real operational changes that could positively affect financial outcomes. Moreover, stakeholders in Nigeria may prioritize companies' social responsibility efforts, such as community development projects and economic empowerment initiatives, over environmental stewardship, thereby reducing the market value attributed to environmental disclosures. Consequently, while environmental reporting remains crucial for long-term sustainability, its short-term financial implications in the Nigerian context appear less pronounced compared to social and economic reporting.

The findings of this study, however, contrast with the results reported by Ezejiofor et al. (2017) and Gatimbu and Wabwire (2016), who observed a favorable and statistically significant correlation between environmental disclosures and firm performance. These earlier studies suggested that companies engaging in transparent environmental reporting often enjoy enhanced financial outcomes, possibly due to improved stakeholder trust, better risk management, and heightened corporate reputation. Although previous research, including the works of Aminu et al. (2022), Soomiyol et al. (2023), and Nwankwo (2023), revealed mixed outcomes regarding the relationship between sustainability disclosures and financial performance, the current study provides evidence that social and economic disclosures exert a more immediate and measurable impact on short-term financial performance than environmental disclosures. This may reflect the heightened importance placed by investors and other stakeholders on initiatives that deliver tangible social benefits and economic returns, particularly in emerging economies where socio-economic challenges are more pronounced.

6. CONCLUSION AND RECOMMENDATIONS

Conclusion

This study meticulously investigated the intricate relationship between sustainability accounting reporting (SAR) and the financial performance of listed oil and gas firms in Nigeria, using Return on Assets (ROA) as a key indicator. Economic and social disclosures were found to significantly influence ROA, suggesting that transparent reporting on financial contributions to the economy and engagement with stakeholders positively impacts a firm's profitability. Specifically, the positive correlation between Respect for Indigenous Rights (RIR) and ROA highlights the financial benefits of ethical engagement and social responsibility. Conversely, the negative correlation of Indirect Economic Impact (IEIP) with ROA suggests that certain broader economic influences or perhaps the costs associated with managing these impacts may initially detract from profitability.

Interestingly, environmental disclosures, while crucial for long-term sustainability, did not show an immediate statistically significant impact on ROA within the ten-year period of this study. This might indicate that the financial returns on environmental investments manifest over a longer horizon or that the current level and quality of environmental reporting do not yet translate directly into short-to-medium term financial gains for these firms. The study also brought to light persistent challenges within the Nigerian oil and gas sector, such as inconsistent reporting practices and the prevalence of "greenwashing" or deceptive public relations. These issues hinder accurate assessment of sustainability efforts and erode stakeholder trust. Overall, the study emphasizes that while some sustainability initiatives immediately contribute to financial performance, a more comprehensive and strategically aligned approach to SAR is necessary for sustainable growth and enhanced shareholder value in the long run.

Recommendations

Based on the findings of this study, the following recommendations are put forth:

1. The Securities and Exchange Commission (SEC) Nigeria and other pertinent regulatory authorities should enhance their oversight and enforcement measures for sustainability reporting. This entails enforcing conformity with a standardized framework such as GRI and instituting more severe sanctions for non-compliance or fraudulent reporting.
2. Oil and gas companies in Nigeria should be incentivized and, when suitable, mandated to implement comprehensive and standardized sustainability reporting systems, such as the Global Reporting Initiative (GRI). This will enhance the uniformity, comparability, and reliability of disclosures, facilitating a more accurate evaluation of sustainability performance and its correlation with financial results.
3. Firms must transcend basic compliance and deliberately incorporate sustainability initiatives into their fundamental company operations and long-term financial objectives. This entails recognizing and funding initiatives that provide both environmental and social advantages alongside tangible financial rewards, so positioning sustainability as a value driver instead of merely a cost center.

4. The corporations should maintain an emphasis on substantial environmental disclosures with a long-term perspective. Although the environmental disclosures in this study did not demonstrate an immediate financial impact, corporations should persist in prioritizing and enhancing the quality of their environmental reporting. This necessitates a long-term viewpoint, acknowledging that investments in environmental conservation and resource efficiency can yield future cost reductions, diminished regulatory risks, improved brand recognition, and access to sustainable financing. Additional research is required to comprehend the enduring financial advantages of particular environmental sustainability projects.
5. Considering the favorable association between Respect for Indigenous Rights (RIR) and Return on Assets (ROA), enterprises should enhance their initiatives in authentic stakeholder engagement, especially with local communities. This encompasses clear communication, equitable remuneration, and active involvement in decision-making processes that impact their livelihoods and environment. Such techniques may result in diminished operational disruptions, increased social license to operate, and heightened profitability.
6. Companies must meticulously assess and alleviate the adverse indirect economic effects they produce. This may entail examining alternate operational techniques, engaging in community development initiatives to mitigate negative impacts, or partnering with local governments to provide mutual benefits. Comprehending and mitigating these effects can reduce financial risks and reputational harm.
7. Future research should investigate the enduring financial ramifications of environmental disclosures inside the Nigerian oil and gas industry. Furthermore, research could examine the distinct financial ramifications of various Environmental, Social, and Governance (ESG) elements, investigating their complexities and diverse impacts on financial performance over prolonged durations. This would yield more detailed insights for both scholars and practitioners.

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