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Effect of Sustainability Reporting On the Financial Performance of Selected Oil and Gas Firms in Nigeria

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Abstract: *This study examined the effect of sustainability reporting on financial performance of oil and gas companies in Nigeria. The objectives were to find out the effect of social disclosure on return on equity of listed oil and gas firms in Nigeria; determine the effect of corporate governance disclosure on their return on equity; and ascertain the impact of environmental disclosure on their return on equity. Ex-post facto design was adopted. The independent variable of the study is sustainability accounting proxied by environment reporting (investment in environmental and green projects), social reporting (investment in social responsibility) and governance reporting (board size). The dependent variable of the study is firm's performance measured by return on equity. Data were extracted from the comprehensive income statements and financial position of five listed oil and gas companies which are Ardova Nigeria Plc, Oando Plc, Conoil Plc, MRS Plc and Totalenergies covering the period from 2011 to 2024. The data were subjected to unit root test, cointegration, and multiple linear regressions. Findings revealed that social responsibility disclosure has negative but significant effect on return on equity of listed oil and gas firms in Nigeria. Corporate governance disclosure has positive and significant effect on return on equity of listed oil and gas firms in Nigeria. Environmental disclosure has positive but no significant effect on return on equity of listed oil and gas firms in Nigeria. Evidence provided a conclusion that sustainability reporting actually led to improved financial performance of the oil and gas companies in Nigeria. Based on the findings, it was recommended that: the management and stakeholders of the oil and gas companies in Nigeria such* *continue to be socially responsible. The board size should be maintained by the stakeholders of the companies.*

Keywords: sustainability, social sustainability, environmental sustainability, governance sustainability, economic sustainability and return on equity.

INTRODUCTION

In the quest for survival, profit making organizations are generally established with an objective to satisfy consumers with the view to make profit. They engage in so many activities which tend to have some severe harmful impacts on the environment, employees and the society at large. These activities oftentimes impacts negatively on the livings of people (Uwalomwa, Obarakpo, Olubukola, Osariemen, Gbenedio & Oluwagbemi, 2020). Some of these negative effects include; air and water pollution, loss of biodiversity, shortages in freshwater availability, global warming, extreme weather events, environmental noise and utter neglect and disregard for the protection of the immediate and future environments (Asuquo, Dada & Onyeogaziri 2018). In order to cushion the negative effect of these activities on the profit, people and planet, firms try to balance the needs of their stakeholders through corporate responsibilities and reporting. This is done through sustainability reporting.

Sustainability reporting is one of the contemporary issues in accounting and it emerged as a result of advancements in technology which brings an unprecedented footprint on the environment and society where companies' economic activities are carried out. In response to these footprints, Oti, Effiong and Akpan (2023) noted that companies institute environmental management systems and sustainable business practices to combat these environmental impacts and serve environmental conservation costs. But the peculiar nature of oil and gas production activities makes it near impossible for some of these sustainability measures to function, as such, some of the environmental impacts are inevitable. Sustainability disclosure is seen as a measurement, analysis and communication of interactions and connections between social, environmental, and economic issues that make up the three dimensions of sustainability.

Global developments in businesses, especially in relation to sustainable development have underscored the importance of companies to integrate information on sustainability issues into their corporate reporting mechanism (Oti, Effiong & Akpan, 2019). This is also informed by the fact that the accountability aspect of financial reporting of companies will not be complete without incorporating sustainability reporting in the annual financial reports, hence the need for the inclusion of sustainability disclosures incorporate annual reports to balance the needs of stakeholders. In accounting disclosure literature, sustainability reporting has to do with the disclosure and communication of environmental, social, and governance (ESG) goals as well as a company's progress towards these goals (Owolabi & Okulenu, 2021). To cushion the negative effect of these activities on the profit, people and planet, firms try to balance the needs of their stakeholders via corporate responsibilities and report same through sustainability reporting. Sustainability reporting otherwise known as Triple bottom reporting or voluntary disclosure is an information providing system that communicates information about environmental, social and economic themes of an organization to its stakeholders aimed at improving the stakeholders' social-economy.

Elkington (2023) noted that sustainability reporting is a shift from corporate main objective of profit maximization, to an all-inclusive approach to the environment, integrating accounting and reporting of social costs, environmental costs as well as economic issues, the elements which business has preferred to overlook. This assertion is based on the premise that sustainable reporting, also known as triple bottom line accounting does not only focus on organizational profitability but also the contributions of an organization to its host environment (corporate social responsibility) as well as the management of its environment.

Reporting sustainability activities of firms affects the reputation and performance of companies undertaking these activities. By disclosing sustainability performance, the company discloses financial information and non-financial information, enabling companies to more transparently communicate with the public about their business activities and other performance aspects. Sustainability reporting can boost financial performance through innovation, operational efficiencies, risk management and stakeholder engagement. Also, Dow Jones sustainable index in KPMG (2021) looks at sustainability Reporting as a business approach that creates long term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. This implies that corporate sustainability leaders achieve long term shareholder value by gearing their strategies and management to harness the markets potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability cost and risks. To achieve excellent financial performance requires professionalism, robust strategies to overcome stiff challenges of short-term era. This is evidenced in the operational cycle of multinational firms in Nigeria. The move to sustainability reporting created some challenges and prospects for the new concept. For the purpose of measurement the conventional accounting system is ill-equipped to incorporate environmental and social externalities, which are important for sustainable development. Sustainability reporting has led to business success, not just by adding economic values, but also awakening organizational environmental and social responsibilities to the larger society where they operate (Soomiyol, Teghtegh & Yua, 2023).

Companies that disclose their sustainability strides have the advantage over others as it constitutes one of the criteria used in assessing and rating sustainable companies. Proponents of the positive effects of corporate sustainability reporting observe that sustainability enhances a company's value and image as well as improves the firm's brand positions, reputation and image which in turn improves financial performance in the long run (Alhassan, Islam & Haque, 2021). It is often assumed that the proper application of economic, social and governance (ESG) standards imply higher returns and financial performance (Aiyesan, 2023).

In Nigeria for instance, Erhirhie and Ekwueme (2022) affirmed that the oil and gas sector has been heavily criticized by the public and relevant stakeholders due to their impact on the environment despite their huge contribution to the revenue of the government. When compared to the banking sector, the operations of oil and gas firms are related to serious health consequences and environmental pollution does create a social crisis between host communities and firms (Uwaoma & Ordu, 2019). There are a variety of reasons that companies choose to produce sustainability reports, but at their core they are intended to be vessels of transparency and accountability. Often, they are also intended to improve internal processes, engage stakeholders and persuade investors. Improved disclosure of non-financial information can have other benefits for reporting companies. In particular, the adoption of sustainability reporting has been found to have a positive impact on company performance and value. OECD suggests that companies showing sustainable performance on environmental, social and governance (ESG) criteria and communicating effectively about them seem to enjoy better financial performance (OECD, 2019 & Baron, 2021). These companies generally benefit from a more diversified investor base, for example through their inclusion in actively managed investment portfolios or sustainability indices (European Commission, 2021). Salaudeen, Akano and Oladosu (2023) stated that corporations have become more sensitive to social issues and stakeholder concerns and are striving to become better corporate citizens. In view of the above development, corporate sustainability reporting has become such an important issue that most companies are now embracing this evolving corporate reporting system.

Statement of the problem

Sustainability reporting has drawn much attention across the globe and even Nigeria in particular. Business wise, the challenge facing companies is how to remain sustainable and consistent in operations considering the complexities of operations and huge costs of environmental and social externalities in oil industry. The overall objective of any organization is to consistently grow and survive on a long term basis. In recent time, the stakeholders have become more and more concerned on the cost implications of environmental and social liabilities to the firms' performance, hence their desire for firms' compliance to global business footprints on sustainable practices which has become a major policy in most firms' boardroom discussions vis-à-vis transparency,

Undefined accountability, reliability, governance issues and sustainability disclosure requirements in the annual reports is a critical issue. The absence of mandatory reporting and acceptable accounting framework for sustainability reporting is part of the obvious challenges facing the oil and gas industry. However, the justification of the implication of sustainability reporting dimension costs valuation on profit for the year of oil and gas firms in Nigeria has become a major challenge and dilemma for management, researchers and investors. Various studies have been conducted on the nature of relationship between environmental, social, and economic values and profitability (Uwalomwa et al., 2018; Soomiyol, Teghtegh & Yua, 2023; Adegbayibi, Adu & Oyedokun, 2024). Some studies are positive or negative, while others showed either inconclusive or neutral results. Other loopholes in these studies are the neglect of the aspect of environmental and social cost valuations, reporting and disclosures of the companies. Also, not much attempt has been made here in Nigeria to study the interplay between sustainability dimension costs; environmental, social and economic cost and profitability of oil and gas companies in Nigeria.

RELATED LITERATURE AND HYPOTHESIS DEVELOPMENT

Sustainability Reporting

Sustainability reporting refers to firms disclosing non-financial information about environmental, social, and governance (ESG) aspects. It strives to present a full view of a company's sustainability effects and performance (Adegbayibi, Adu & Oyedokun, 2024). The sustainability report goes beyond standard financial reporting by giving non-financial information on environmental, social, and governance (ESG) aspects. This contains information on environmental and social implications, governance challenges, human rights, supply chain management, and diversity (Adekanmi, 2022). It is intended to give a more comprehensive assessment of a company's performance and consequences by considering non-financial aspects. Sustainability reporting is the activity of measuring, revealing, and holding internal and external stakeholders responsible for corporate performance toward sustainable development objectives. Abosede (2022) views it as participating in the evaluation, transparency, and responsibility to internal and external stakeholders for the overall performance of the firm.

Sustainability reporting is a means by which companies disclose information about their environmental, social, and governance (ESG) performance and impacts (Shaban & Barakat, 2023). . It is an increasingly important aspect of corporate transparency and accountability, as investors, consumers, and other stakeholders increasingly demand to know more about a company 's non-financial performance (Adams & Abhayawansa, 2022; Andrian & Pangestu, 2022).

ESG investment (sustainable or socially responsible investment) is an investment strategy for investors who consider firms' attitudes toward environmental, social, and corporate governance factors, such as policies on climate change and human rights in seeking to earn higher returns and implement portfolio allocation strategies (Sariyer & Tas¸kın, 2022). ESG investment has gained attention from investors and policy makers and has shown significant growth in the past few decades. The increase in sustainable investment indicates that the trend toward ESG portfolios has risen despite the pandemic. This trend suggests that ESG portfolios are considered safe instruments even in periods of turmoil. The pandemic triggered interest by investors in the ESG aspects of companies during this period of uncertainty (Pastor & Vorsatz, 2020). Sustainability indexes play a significant role in guiding investors about their ESG aspects (Arribas et al., 2021). ESG indexes consider the sustainability approaches of the firms in terms of their three pillars: environmental, social, and governance.

The environmental pillar considers the attitudes and practices of the firms toward environmental issues such as climate change, air and water pollution, deforestation, and biodiversity. Thus, this part of the index grades firm activities related to energy consumption, energy efficiency, carbon and hazardous gas emissions, waste, water, and resource management. The social pillar is related to the firms' policies associated with human rights protection, workplace and product safety, labor standards, gender policies, and public health issues (Sariyer & Tas¸kın, 2022).

The governance pillar of the index concerns factors related to the good governance of firms, such as board independence, protection of shareholder rights, control and monitoring activities, anticompetitive procedures, and compliance with laws and regulations. Many studies associate ESG ratings with the firms' responses to environmental and social aspects such as corporate social performance (Drempetic et al., 2020).

ESG rating agencies evaluate the ESG performance of firms by demanding data on hundreds of criteria. Despite the popularity of the ESG ratings in evaluating sustainability performance, different rating agencies give conflicting ratings. Some firms indexed in ESG indexes are involved in scandals, which demonstrate unsustainable practices (Arribas et al., 2021). Arribas et al. (2019) highlight many irresponsible behaviors by firms listed in the Dow Jones Sustainability Index. Even though the overall ESG Ratings are considered for sustainability practices, it is clear that firms follow environmental, social, and governance criteria to different degrees. Adams and Abhayawansa (2022) stress that the pandemic caused the social aspects to be under scrutiny and offered a motivation for reevaluating environmental factors. Keeping that in mind, investors should consider firms in sustainability indexes as different actors and make their investment decisions by considering the firms' different approaches toward these three pillars.

Financial performance

Corporate financial performance is a crucial aspect of financial risk management and measuring a company's financial well-being over time. It can be used to compare a company within an industry or across industries (Didin, Jusni & Mochamad, 2022). According to Yousaf and Dey (2022), financial Performance (FP) is a measure of a company's efficiency in converting its financial and other resources into sales (income). It provides insight into how the business is doing financially at any given moment and serves as a barometer of management's performance. The use of financial performance monitoring may provide managers with confidence in both their immediate and long-term choices. A sign of a thriving and expanding firm is the ability to gain a financial edge over rivals who may perform less well financially (Ogunbiyi-Davies & Adegbie, 2024).

Financial performance has been defined as a blend of financial state of affairs along with a firm's ability to meet its policy business compulsions and commitment (Weber, 2024). Mata and Ibrahim (2018) defined financial performance as a subjective measure of how well, a firm can use assets from its primary mode of business and generate revenues. Financial performance as an act of undertaking financial activities while noting that in a broader sense financial performance is the degree to which financial or monetary objectives been realized by an organization or entity.

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

Return on assets (ROA) is the most popular measure of financial performance, while return on equity (ROE) shows how well a firm manages its equity. Both ratios provide insights into a company's financial performance, allowing scholars to gain more accurate insights (Ogunbiyi-Davies & Adegbie, 2024). The method which researchers commonly have utilized when evaluating financial performance can be divided into three categories. The first is using accounting and profitability based measures, such as Return on Assets (ROA) or combinations of various accounting variables. The second method is the use of market based measures which includes stock market performance and market value. The third approach involves combination of various accounting based and market based measures. Some of the measures of financial performance include as Return on Equity (ROE), Return on Asset (ROA), Return on Capital Employed (ROCE), Return on Sale (ROS), and Earnings per share (EPS) (Ghosh, Basit & Hassan, 2017).

The financial success of a company is seen as the result of its ability to raise, allocate, and oversee money (Dinh & Pham, 2020). The term refers to a collection of tools used for evaluating the comprehensive financial position of a corporation across a certain period. The comparative analysis of these instruments may be conducted inside firms operating in the same industry or across collection of oil and gas companies in Nigeria (Anozie et al., 2023). The assessment of a company's financial success is a multifaceted concept that may be evaluated via several methodologies. According to Dinh and Pahm (2020), the assessment of financial performance may be conducted via the use of accounting methodologies such as Return on Assets (R.O.A) and Return on Equity (R.O.E), as well as economic models like Mari's coefficient and Tobin's Q.

Social reporting and financial performance

Several studies emphasize the role of the social pillar on performance, focusing on activities such as customer and employee satisfaction and workplace conditions. Phan et al., (2020) note that sustainable development practices have a positive effect on financial performance directly and indirectly via customer loyalty, employee satisfaction, and corporate reputation. Edmans (2011) investigates the value-weighted portfolio of the "100 Best Companies to Work for in America" in 1984–2009 and confirms the impact of employee satisfaction on long-term stock returns. He further proves that investors prefer companies that positively affect stakeholders other than shareholders. Ordinarily a firm's positive response to her customers and all stakeholders would invariably affect its performance.

HO1: Social responsibility disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

Governance disclosure and financial performance

Studies investigating the governance pillar and firm performance relationship are numerous. Because this pillar considers the factors investigated under corporate governance, many papers examined the impact of board characteristics, control and monitoring activities, and protection of shareholder rights on performance. Following the seminal reports by Gompers et al., (2003), a mostly positive impact of these factors on performance is found in the literature. Bhagat and Bolton (2008) observe a positive impact of issues such as board members' stock ownership and CEO-chair separation on operating performance but an insignificant effect on future stock market performance. Conversely, Brown and Caylor (2006) remark that firms with higher governance scores are more profitable and more valuable and offer greater payment for their shareholders. Ciftci et al. (2019), in their study noted the Turkish context and suggested that concentrated ownership of the board size contributes to the firm performance positively. Foreign ownership is associated with better performance, whereas cross-ownership inversely affects accounting performance, and having a higher proportion of family members on the board has insignificant influence. Mertzanis et al. (2019) conclude that for a sample of 225 companies in the Middle East and North African region, board size and insider and institutional ownership are robust indicators of firm performance. Khatib and Nour (2021) investigate Malaysian firms in 2019–2020 and note that board size does not matter, whereas board diversity significantly affects firm performance during the period of uncertainty due to COVID-19. They also find a negative impact of board and audit committee meetings on performance.

HO2: Corporate governance disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

Environmental reporting and financial performance

Environmental financial performance relationship stems from the stakeholder theory and natural resource–based (NRB) perspective, which define how these practices affect the financial outcomes. The stakeholder theory suggests that dealing with the demands of several stakeholders makes firms more efficient, and environmental practices lead to better performance (Freeman & Evan, 1990). The NRB perspective conditions the firm's success on its relationship to the natural environment (Hart, 1995). Manrique and Martí-Ballester (2017) focus on a large sample of companies from developed and developing countries. They adopted various financial performance measures, such as the return on assets (ROA), the capital intensity ratio, Tobin's Q, and corporate environmental performance measures that integrate environmental approaches including emissions and resource reduction and product innovation. Their results show that environmental practices by firms have significantly positive impacts on financial performance, with a more substantial effect for firms in developing countries than in developed countries. Gupta (2018) suggests that this improved performance results from the implied cost of equity reduction due to advances in environmentally friendly approaches.

HO3: Environmental disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

Stakeholder theory

Environmental accounting practice in this study is rooted in the stakeholder theory propounded by Richard Edward Freeman in 1984. Stakeholder theory has both an ethical (moral) or normative branch and a positive (managerial) branch. The moral (normative) perspective of Stakeholder Theory argues that all stakeholders have the right to be treated fairly by an organization, and the issues of stakeholder power are not directly relevant. Regardless of whether stakeholder management leads to improved financial performance, managers should manage the organization for the benefit of all stakeholders. One definition of stakeholders is provided by Freeman and Reed: *Any identifiable group or individual who can affect the achievement of an organization's objectives is affected by the achievement of an organization's objectives.*

Clearly, many people can be classified as stakeholders based on the above definition, for example, shareholder, creditors, government, media, employees, employees' families, local communities, local charities, future generations, and so on. Within the ethical (moral) or normative perspective of Stakeholder Theory, all stakeholder have certain minimum rights that must not be violated. It can be acknowledged that this perspective can be extended to a notion that all stakeholders also have a right to be provided with information about how the organization is impacting on them, perhaps through pollution, community sponsorship, provision of employment, safety initiatives, and so on, even if they choose not to use the information, and even if they can not directly have an impact on the survival of the organization.

For a business to achieve its objectives, it should take into account the interest of its stakeholders in the decisions it makes, and the in manner in which it conducts its operations. This is the central argument of the stakeholder's theory (Donaldson & Preston 1995). To be successful, a firm seeking to maximise the wealth of its shareholders as well as achieve its objective and goals, must consider the interest of its stakeholders. An ethically oriented firm would engage in decision-making processes that are favourable to its stakeholders. When the actions of a firm are ethically motivated and allows for the interests of the stakeholders in its environment, it is most likely that the actors in the environment in which the business operates will perceive the business as socially responsible.

The stakeholders of a business have one expectation or the other from the entity. A socially responsible business will seek to protect the interest of its stakeholders by seeking to satisfy the interest of both internal stakeholders (such as shareholders and employees) and external stakeholders (such as creditors, suppliers, host community, and the government). Managers must therefore consider how their activities will affect not just the shareholders but all other key stakeholders of the business. This is important as these stakeholder groups can enhance or frustrate an entity from achieving its goals. Put briefly, the stakeholder theory posits that there are many stakeholders in the environment in which a firm operates. Ignoring the interests of these stakeholders will imperil the performance of the business. Relying on the stakeholder perspective some studies have documented a positive relationship between CSR activities and financial performance (Ashrat, Kham & Tariq, 2017; Kaskeen, 2017; Manokaran et al., 2018). Summing from all the views, this study is, therefore, anchored on stakeholder's theory.

Empirical Studies

Oti, and Mbu-Ogar, (2018) examined the impact of environmental and social disclosure on the financial performance of quoted oil and gas companies in Nigeria. Time series data for five years were collected and analyzed using the ordinary least square regression technique. The theoretical framework was hinged on stakeholder and legitimacy theories which describe the tie between organizations and the social/societal strata need for disclosure and financial performance. Results from the statistical analysis revealed that disclosure on employee health and safety and community development do not significantly affect financial performance while disclosure on waste management had a positive and significant effect on firm's financial performance. The study recommended that oil and gas companies should constantly review their waste management strategy and employ bespoke technology in waste management to mitigate their impact on the environment.

Abdullahi, Olanrewaju and Mohammed (2021) examined the impact of audit firm types on sustainability performance effort (health care, employment and education) of quoted oil and gas marketing company in Nigeria. The population of the study consists of all the 13 oil and gas marketing companies quoted on the Nigeria Stock Exchange as at end of the year 2020. Secondary data was sourced from the annual reports and accounts of the sampled companies for the period of 5 years (2016-2020). The dependent variables for the study were Sustainability Performance effort proxied by expenditure on education, employment and health care by the oil and gas companies, while the independent variable was audit firm type. A panel regression model was employed for the analysis as the data cuts across different firms over periods. The results revealed that there is no significant relationship between audit firm type and sustainability performance. This is evident from the p-value of 0.554 which is related to audit firm type and health care. Also, the result of the audit firm and education revealed a p-value of 0.422 and that of audit firm type and employment 0.364. This result provided a basis for rejecting all the hypotheses. The study therefore, recommended that the oil and gas companies should continue to undertake their responsibility in the sustainability performance without any reference to whether they are being audited by any type of audit firm.

Uniamikogbo and Ifeanyichukwu (2021) investigated the relationship between environmental accounting disclosure and financial performance of manufacturing firms in Nigeria. Precisely, the study examined the effect of environmental accounting disclosures on Share Price, Return on Asset and Return of equity of selected manufacturing firms in Nigeria. The ex-post-facto research design was engaged in this study, using a sample of 40 manufacturing firms. The secondary source of data collection method was employed using the convenience sampling technique. Data were harvested from the content analysis disclosure index and corporate annual reports of the sampled manufacturing firms listed on the Nigerian Stock Exchange for the period 2010-2019 financial years. The descriptive statistics, correlation matrix and regression analysis were the statistical tools used in the study. Data were analysed with the aid of the panel data regression technique. The findings revealed that environmental accounting disclosures had a significant effect each on Share Price, Return on Asset and Return on equity of manufacturing firms in Nigeria.

Aydogmus¸ G¨ulay and Ergun (2022) examined impact of Environment, Social, Governance (ESG) performance on firm value and profitability. The dataset was collected through secondary source. Findings suggested that overall ESG combined score is positively and significantly associated with firm value. Individual Social and Governance scores have a positive and significant relationship while Environment score does not have a significant relationship with firm value. On the other hand, ESG combined score, Environment, Social, and Governance scores have positive and significant relationships with firm profitability. These findings suggested that investing in high ESG performance promises financial return for the firm in terms of both value and profitability.

Bai, Han, Ma and Zhang (2022) sought to determine whether the ESG (environmental, social, and governance) performance by Chinese listed companies affects their financing constraints. Based on panel data on 3400 listed companies in China from 2013 to 2020, the study found that good ESG performance by listed companies not only directly reduces their financing constraints but also encourages institutional investors to increase their shares, thereby conveying positive signals to the market and helping enterprises reduce their financing constraints. However, in primary industry, enterprises' ESG performance in terms of reducing financing constraints at listed companies is not obvious. In addition, this study provided evidence that institutional investors have ESG investment preferences, and this preference is more significant at non-state-owned listed companies and listed companies in secondary and tertiary industries.

Obiora, Onuora, and Sandra (2022) assessed the impact of environmental accounting disclosure on profitability of quoted firms in Nigeria from 2017 to 2021. Environmental disclosure index was employed as the independent variable while financial performance measures such as return on assets, return on equity and return on capital employed were employed as the dependent variable. Ex post facto research design was employed. Five firms from different sectors of the economy were sampled. The data used in this study were sourced from annual reports and statement of accounts of the selected firms. Descriptive statistics, correlation analysis and ordinary least square regression were employed in analyzing the data. The study found that environmental accounting disclosure has a significant impact on return on assets of quoted firms in Nigeria. Environmental accounting disclosure was also found to have significant impact on return on equity of quoted firms in Nigeria.

Sariyer and Tas¸kın (2022) carried out a study on companies listed on the Borsa Istanbul (BIST) Sustainability Index are analyzed by performing a cluster analysis based on their environmental, social, and governance (ESG) scores. The results proved that firms with higher ESG ratings do not necessarily perform well in all ESG aspects. The outcomes of the cluster analysis reveal that firms with higher environmental and social scores are the cluster with the most prominent firms in terms of size but with low profitability. However, the group that scored poorly in environmental and social practices but the highest governance pillar was the highest performing in terms of the return on assets. The study highlighted the significance of forming clusters and linking sustainability practices with performance characteristics.

Ahakiri, Raphael and Ogar-Abang (2023) examined the effect of Environmental Accounting Disclosure (EAD) on the firm's profitability of listed oil and gas companies in Nigeria. The study employed ex post facto research design in a sample of nine (9) oil and gas companies for a period of years (2013-2021). Secondary data from the financial statement of the sample companies was used. Dynamic panel regression technique of data analysis was used in the analysis, after controlling for firm size and leverage. The study reveals that environmental accounting disclosure has a positive significant effect on firm profitability of listed oil and gas companies in Nigeria In line with the findings, the study recommends that Nigerian oil and gas companies should adopt environmental accounting disclosure practices as part of their corporate social responsibility initiatives. This will help improve their environmental performance and also enhance their financial performance.

Ihenyen and Ikegima (2023) examined environmental accounting and organisational performance of listed industrial sector companies in Nigeria. From the annual reports and financial statements of listed firms on the Nigerian stock exchange, researchers gathered secondary data that was utilized in the study. As proxies for Environment Accounting (EVA), Waste Management Cost (WMC), CDC, and EHSC, the independent variable is Waste Management Cost (WMC) (EHSC). The dependent variable is the company's performance in terms of return on asset, return on equity, and profit margin. Canonical correlations were used to analyze the data. Environmental accounting (waste management costs, community development expenses, employee health and safety costs) and organizational performance (Return on assets, return on equity, and profit margin) of listed industrial sector businesses in Nigeria have a substantial association. It recommended that environmental accounting in annual reports mandatory, as most companies do not declare their environmental operations in their annual reports.

Kansilembo, Anrusha and Sachin (2023) explored the relationship between environmental costs and financial performance of two large national plastic manufacturing companies, namely Bowler Metcalf Limited (BML) and Nampak Ltd, between 2018 and 2019 since research allows for five year old information.. It adopted a qualitative method of inquiry using content analysis to analyze the financial statements and reports of the two companies (secondary data analysis) available in the public domain. The results showed a positive relationship between environmental costs and profits in the financial statements of these two companies during 2018 and 2019. BML had a decrease in plastic penalties from R 23.171 million in 2018 to R 14.596 million in 2019, which supported a reduction in spending on legal and constructive obligation items. Nampak also decreased stakeholders' equity from R 10,140.3 million in 2018 to R 8,932.33 million in 2019, which meant that the stakeholders' equity funds were reduced, possibly due to reduced spending on environmental costs during that period. It concluded that when these two plastic companies spend more on environmental costs, this positively affects overall financial performance and improves financial sustainability. It recommended the allocation of more resources/funding to support environmental costs to increase the profitability of the two plastic manufacturing companies.

Shaban and Barakat (2023) investigated the relationship between sustainability reporting and financial performance. The research community of this study is formed out of all the 13 Jordanian commercial banks listed in the Amman Stock Exchange, and covering the period from 2012–2021. The data was collected from publicly available sources and analyzed using multiple regression analysis. The results of the study suggested that there is a strong linear relationship between sustainability reporting and the dependent variables return on assets (ROA) and financial leverage (LEV), but the relationship between sustainability reporting (SR) and return on equity (ROE) is not statistically significant. These findings provide insights for companies, investors, and other stakeholders on the potential benefits and drawbacks of sustainability reporting and can inform decision-making around sustainability initiatives.

Korolo (2024) investigated the effect of sustainability reporting on the corporate performance of companies quoted on the Nigerian Stock Exchange. The measures for corporate performance used in the study are profit margin (PM) and market value indicated by share price (SP). The three dimensions of sustainability reporting examined are namely; economic, social, and environmental disclosures. The ex-post factor research design was employed. A sample of 70 listed companies drawn from oil and gas, telecommunication, and manufacturing industries in Nigeria using data from 2010-2019 . A series of preliminary analyses such as descriptive statistics, correlation, multicollinearity analysis, panel co-integration test and panel regression were conducted to examine the relationship between sustainability reporting and corporate performance. The findings of the study revealed that (i) Economic performance disclosure and social performance disclosure have a significant positive effect on the net profit margin of companies listed on the Nigeria Stock Exchange (ii) Environmental performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange, (iii) Economic performance disclosure and social performance disclosure has a significant positive effect on the market value of companies listed on the Nigeria Stock Exchange, (iv) Environmental performance disclosure has no significant effect on market value of companies listed on the Nigerian Stock Exchange The study recommended that environmental disclosures have been lagging critically behind economic and social disclosure, thus companies need to pay more attention to addressing

Ogunbiyi-Davies and Adegbie (2024) estimated the effect of CSR on the financial performance of the listed oil and gas companies in Nigeria from 2011 to 2022. The 11 oil and gas companies with primary listings on the Nigerian Exchange Group (NGX) form the population for the analysis. Secondary data from the publicly available annual reports of the Nigerian Exchange Group (NGX) was utilized for this study. The study utilized panel regression analysis, and the Hausman test for specification was performed. The results revealed that health and safety initiatives had a significant beneficial impact on the financial performance of Nigeria's listed oil and gas companies {Adj R2=; F{df)=, p= 0.0000) According to the findings of -1.8643589 of EVE regression study, investments in CSR have a small, negative effect on the financial performance of publicly listed oil and gas companies in Nigeria. The prob. Value of 0.0018623, 0.0000000 and 0.5975882 indicated that both employee expenditures and health and safety significantly affected the financial performance of oil and gas companies in Nigeria. The research concluded that corporate social responsibility (CSR) had a significant impact on the financial performance of oil and gas companies listed on Nigerian Exchange Group (NGX) and thus listed oil and gas companies in Nigeria would benefit financially from increased social responsibility measures if they are well implemented. The study concluded that CSR has influence on financial performance of listed oil and gas companies in Nigeria. The study recommended that Nigeria should include corporate responsibility in their policy statements and back it up with a well-organized budget in order to enhance their financial performance.

Sharawi and Shahawi (2024) investigated the impact of environmental, social, and governance (ESG) disclosures on the quality of financial reporting (FRQ) among nonfinancial firms listed on the Saudi Stock Exchange. Using panel data analysis, the study examines the relationship between ESG disclosures and FRQ across three models, incorporating variables such as Environmental Disclosure, Social Disclosure, Governance Disclosure, firm Size, Industry classification, and the presence of Big Four audit firms. The analysis is based on a sample of 25 nonfinancial firms from various sectors, representing 125 observations spanning the period from 2019 to 2023. The findings revealed significant positive associations between comprehensive ESG disclosures and enhanced FRQ, underscoring the role of transparency and accountability in corporate reporting practices. The results suggested that firms adopting robust ESG reporting frameworks can improve financial transparency and stakeholder trust in Saudi Arabia's business environment.

Soomiyol, Teghtegh and Yua (2023) examined the effect of sustainability reporting on the performance of sampled Oil and Gas firms in Nigeria. Performance proxied by return on assets (ROA) was the dependent variable while sustainability reporting surrogated by economic reporting, environmental reporting and social reporting. The major analysis to achieve the specific objectives was performed using the generalized least square (GLS) regression techniques. The findings showed that economic reporting and environmental reporting has a significant effect on the financial performance of sampled oil and gas firms in Nigerian while social reporting has no significant effect on the financial performance of sampled Oil and Gas firms in Nigeria. The study recommends among others that, listed oil and companies in Nigeria should intensify economic dimension of sustainability reporting as this could lead to increased performance.

Gap in literature

Many researchers studied the link between ESG and financial performance of the firm. While more recently they mostly find positive results, there are also quite many papers with negative results, supporting the Shareholder theory where the primary objective of the firm is to maximize shareholder profit. The conflicting findings on sustainability reporting and financial performance nexus above prompted this study to further consider impact of sustainability reporting on financial performance of oil and gas companies listed in Nigeria. It made use of secondary data on sustainability proxies such as social, environmental and governance reporting and their link with return on equity from 2011 to 2024.

METHODOLOGY

This study adopted exp-post facto research design to investigate the economic relationship between one or more independent variables and a dependent variable using time series data**.** The data utilized is extracted from the comprehensive income statements and financial position of five listed oil and gas companies which are Ardova, Nigeria Plc, Oando Plc, Conoil Plc, MRS Plc and Totalenergies. The time frame considered for this study is fourteen (14) years covering the period from 2011 to 2024. The sample size for this study is thirteen years covering the period 2011 to 2024. The sample of the study was determined by convenience sampling technique due to data availability. The independent variable of the study is sustainability accounting proxied by environment reporting (investment in environmental and green projects), social reporting (investment in social responsibility) and governance reporting (board size). The dependent variable of the study is firm's performance measured by return on equity. The data collected were analyzed as panel data. The data were subjected to unit root test, cointegration, and multiple linear regression.

Specification of model

For the purpose of this study the model is specified thus:

ROE = f (ERP, SRP, GRP)

$ROE = a_0 + a_1 SRP_t + a_2 GRP_t + a_3 ERP_t + + e$.................................. eqn 1

Where

ERP= environment reporting (investment in environmental and green projects)

SRP = social reporting (investment in school and health projects)

GRP= Corporate governance disclosure (board size)

ROE= Return on equity

Where, a_0 = Constant or Intercept.

t= Time dimension of the Variables

i= Individual company

a_1, a_2 a_3 = Coefficients to be estimated or the Coefficients of slope parameters.

Data analysis

Table 4.1: Descriptive statistics

Date: 02/22/25
Time: 09:12
Sample: 2011 2024

	ROE	SRP	GRP	ERP
Mean	0.222050	412411.6	9.442857	273.7447
Median	0.129487	24747.22	9.000000	212.0500
Maximum	2.913504	3781993.	12.00000	1312.510
Minimum	-0.469920	31.11000	7.000000	10.11000
Std. Dev.	0.451094	900274.0	1.480655	230.1351
Skewness	3.983686	2.399422	0.179630	1.574889
Kurtosis	21.59170	7.683387	2.011440	7.149052
Jarque-Bera	1193.297	131.1421	3.226765	79.14591
Probability	0.000000	0.000000	0.199213	0.000000
Sum	15.54348	28868810	661.0000	19162.13
Sum Sq. Dev.	14.04051	5.59E+13	151.2714	3654391.
Observations	70	70	70	70

Source: Author's Computation

The descriptive analysis shows that ROE averaged 22.21% annually for the period under review with a maximum of 291.35%. SRP averaged ₦412411.6 with a maximum value of ₦3781993. GRP averaged ₦9.44285 with a maximum value of ₦12.00000. ERP averaged ₦273.7447 with a maximum value of ₦1312.510. This suggests that the companies have spent or allocated fewer amounts on environmental financing. It has also averaged 9 members on the board size.
The Jarque-Bera statistics for all the series shows that ROE has a prob-value of 0.0000, SRP has a prob-value of 0.0000 while ERP has a prob-value of 0.000 which implies that the residuals of ROE, SRP and ERP are significant but not normally distributed. The residuals of GRP has a prob-value of 0.199213 is not significant but normally distributed.

Table 4.2: Correlation matrix

	ROE	SRP	GRP	ERP
ROE	1.000000	-0.049960	0.083906	-0.158369
SRP	-0.049960	1.000000	0.574166	0.541629
GRP	0.083906	0.574166	1.000000	0.243796
ERP	-0.158369	0.541629	0.243796	1.000000

Source: **Author's Computation**

In the table 4.2 above, to examine whether multicollinearity exists amongst independent variables, the highest correlation is 0.574166 which is between GRP and SRP while the lowest is 0.243796 which is between ERP and GRP; therefore, there is a low level of multicollinearity amongst the independent variables.

Table 4.3. Unit root test of at level

Panel unit root test: Summary
Series: D(ROE)
Date: 02/22/25 Time: 10:43
Sample: 2011 2024
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.39660	0.0000	5	55
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-3.49936	0.0002	5	55
ADF - Fisher Chi-square	30.7715	0.0006	5	55
PP - Fisher Chi-square	56.7739	0.0000	5	60

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

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Series: D(SRP)
Date: 02/22/25 Time: 10:51
Sample: 2011 2024
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.31687	0.0939	5	55
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-11.7908	0.0000	5	55
ADF - Fisher Chi-square	44.9971	0.0000	5	55
PP - Fisher Chi-square	34.2574	0.0002	5	60

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(GRP)
Date: 02/22/25 Time: 10:50
Sample: 2011 2024
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-2.76137	0.0029	1	11
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.54062	0.0617	1	11
ADF - Fisher Chi-square	6.01546	0.0494	1	11
PP - Fisher Chi-square	10.2682	0.0059	1	12

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: ERP
Date: 02/22/25 Time: 10:51
Sample: 2011 2024
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				

Levin, Lin & Chu t*	3.90411	1.0000	5	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	2.68776	0.9964	5	60
ADF - Fisher Chi-square	10.7134	0.3803	5	60
PP - Fisher Chi-square	11.6317	0.3105	5	65

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

From the unit root test in table 4.3, result conducted above indicates that the variables ROE, SRP and GRP are integrated at level (0) while ERP is integrated in 1st difference. There is need to subject the data for further analysis using cointergration.

Table 4.4: Panel Cointegration

Johansen Fisher Panel Cointegration Test
Series: ROE SRP GRP ERP
Date: 02/22/25   Time: 10:18
Sample: 2011 2024
Included observations: 70
Trend assumption: Linear deterministic trend
Lags interval (in first differences): 1 1

Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)

Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	Prob.	Fisher Stat.* (from max-eigen test)	Prob.
None	41.00	0.0000	41.00	0.0000
At most 1	88.38	0.0000	77.03	0.0000
At most 2	26.28	0.0034	23.77	0.0082
At most 3	16.09	0.0971	16.09	0.0971

* Probabilities are computed using asymptotic Chi-square distribution.

Individual cross section results

Cross Section	Trace Test Statistics	Prob.**	Max-Eign Test Statistics	Prob.**
Hypothesis of no cointegration				

ARDOVA	NA	0.5000	NA	0.5000
CONOIL	471.4241	0.0001	417.4907	0.0001
MRS OIL AND GAS	NA	0.5000	NA	0.5000
OANDO	503.1524	0.0001	417.4907	0.0001
TOTALENERGIES	NA	0.5000	NA	0.5000
Hypothesis of at most 1 cointegration relationship				
ARDOVA	25.5444	0.1429	15.0136	0.2880
CONOIL	53.9334	0.0000	43.5910	0.0000
MRS OIL AND GAS	46.8695	0.0002	29.4477	0.0027
OANDO	85.6617	0.0000	66.2169	0.0000
TOTALENERGIES	37.3445	0.0056	24.0461	0.0189
Hypothesis of at most 2 cointegration relationship				
ARDOVA	10.5308	0.2421	9.4176	0.2530
CONOIL	10.3424	0.2553	8.9461	0.2907
MRS OIL AND GAS	17.4219	0.0253	14.3753	0.0480
OANDO	19.4448	0.0120	15.8692	0.0276
TOTALENERGIES	13.2984	0.1043	13.2976	0.0706
Hypothesis of at most 3 cointegration relationship				
ARDOVA	1.1132	0.2914	1.1132	0.2914
CONOIL	1.3964	0.2373	1.3964	0.2373
MRS OIL AND GAS	3.0466	0.0809	3.0466	0.0809
OANDO	3.5756	0.0586	3.5756	0.0586
TOTALENERGIES	0.0008	0.9781	0.0008	0.9781

**MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation

The panel cointegration to determine the long-run relationship between the ROE and the proxies of sustainability reporting shows that there is at least 2 cointegraton in both the trace and maximum Eigen value which implies that there is long-run relationship between return on equity and proxies of sustainability reporting (social reporting (SRP), governance reporting (GRP) and environment reporting (ERP)). Having established that there is long run relationship between proxies of sustainability reporting and return on equity, the data is further subjected to panel multiple regression to determine the short run relationship.

Table 4.5: Result of OLS analysis

Dependent Variable: LOG(ROE)
Method: Panel Least Squares
Date: 02/22/25 Time: 09:16
Sample: 2011 2024
Periods included: 14
Cross-sections included: 5
Total panel (unbalanced) observations: 64

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18.02002	4.463293	-4.037382	0.0002
LOG(SRP)	-0.332691	0.125020	-2.661091	0.0100
LOG(GRP)	7.483300	1.975749	3.787576	0.0004
LOG(ERP)	0.355329	0.351988	1.009493	0.3168

R-squared	0.217965	Mean dependent var	-2.648828
Adjusted R-squared	0.178863	S.D. dependent var	2.447097
S.E. of regression	2.217476	Akaike info criterion	4.491078
Sum squared resid	295.0320	Schwarz criterion	4.626008
Log likelihood	-139.7145	Hannan-Quinn criter.	4.544234
F-statistic	5.574298	Durbin-Watson stat	1.798239
Prob(F-statistic)	0.001930		

Source: Author's Computation

Estimated model from the Eviews after conversion to logarithm to reduce the spuriousity of the data shows that the model is linear and given as
LOG(ROE) = -18.0200193885 - 0.332690920353*LOG(SRP) + 7.48330047711*LOG(GRP) + 0.355329077935*LOG(ERP) The coefficient of determination R^2 is 21.79%, indicating that the proxies of sustainability reporting variables and return on equity are poorly fitted on the regression line. The adjusted coefficient of determination is 17.89% implying that 17.89 percent of the total variation found in ROE is explained by the presence of social reporting (SRP), governance reporting (GRP) and environment reporting (ERP). The F-statistics shows that F-cal is 5.574298 with a prob-value of 0.001930 which implies that the overall regression is statistically significant and the proxies of sustainability reporting variables jointly impact on return on equity. The Durbin Watson result shows a value of 1.78 which is close to 2.0 therefore there is no autocorrelation in the model.

Testing of hypotheses

Test of hypothesis one

H_{01}: Social responsibility disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

H_{i1}: Social responsibility disclosure has significant effect on return on equity of listed oil and gas firms in Nigeria.

SRP is negatively (coefficient= -0.332691) related to ROE. This means that the higher the social responsibility expenditure, the lower the return on equity. The t-test shows a prob.value of 0.0100 which is less than 0.05 level of significance thus indicating that social responsibility expenditure has a statistical relationship with return on equity. Therefore, the null hypothesis is rejected and the alternative hypothesis accepted that Social responsibility disclosure has significant effect on return on equity of listed oil and gas firms in Nigeria.

Test of hypothesis two

H_{02}: Corporate governance disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

H_{i2}: Corporate governance disclosure has significant effect on return on equity of listed oil and gas firms in Nigeria

GRP is positively (coefficient= 7.483300) related to ROE. This means that the higher the board size, the higher the return on equity. The t-statistics shows a prob.value of 0.004 which is lower than 0.05 level of significance thus, suggesting that corporate governance disclosure has significant effect on return on equity are statistically significant. The null hypothesis is rejected and the alternative accepted that corporate governance disclosure has significant effect on return on equity of listed oil and gas firms in Nigeria..

Test of hypothesis three

H_{03}: Environmental disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria

H_{i3}: Environmental disclosure has significant effect on return on equity of listed oil and gas firms in Nigeria

ERP is positively (coefficient= 0.355329) related to ROE. This means that the higher the investment in environment, the higher the return on equity. The t-test shows a prob.value of 0.3168 which is higher than 0.05 level of significance thus suggesting that investment in environment, the higher the return on equity are statistically insignificant. In other words, the amount allocated for environmental financing by the oil companies has made no meaningful impact on their returns. The null hypothesis is therefore accepted that environmental disclosure has no significant effect on return on equity of listed oil and gas firms in Nigeria.

DISCUSSION OF FINDINGS

The findings in this study have shown some interesting results. First it was observed that corporate social responsibility reporting of the oil and gas companies showed an upward trend yet falls below the value expected from such companies as they are majorly in a sector that presently serves as the pillar of the Nigerian economy. The negative relationship between investment in corporate social responsibility and return on equity supports the argument of classical theorists that corporate social responsibility is a drain on resources with no meaningful benefits from the companies engaging in school practices. However, going by the stakeholders theory companies owe it a duty to be socially responsible to their host communities and country. This forms the basis for social responsibility disclosure as it may not necessarily be financially rewarding but non-financially rewarding such as improving public image. The findings therefore supports of Oti, and Mbu-Ogar, (2018), Aydogmus¸ G¨ulay and Ergun (2022), Ogunbiyi-Davies and Adegbie (2024) which found a significant impact of social responsibility on financial performance but contrary to the study of Abdullahi, Olanrewaju and Mohammed (2021).

On the relationship between governance disclosure and return on equity, a positive and significant relationship was observed. This suggests that the higher the numbers of executives, the more the companies are able to take decisions that improve on their investments. This supports the agency theory which sees the board as those paid with the sole responsibility of making decisions that benefits the investors and reporting to them when necessary. This implies that contrary to the fear that a higher number of board executives will amount to higher amount expended on remuneration which may in turn reduce the profits of the companies, a higher number of executives actually meant well for the companies. The findings are in line with the studies of Aydogmus¸ G¨ulay and Ergun (2022) and Bai, Han, Ma and Zhang (2022) that good ESG performance by listed companies not only directly reduces their financing constraints but also encourages institutional investors to increase their shares.

In the third hypothesis, it was found that although environmental disclosure showed a positive link with financial performance, the relationship was insignificant to make any meaningful impact on their returns on equity. It simply implies that the companies are not budgeting enough for the maintenance of their environment as reported by their financial statements. In fact, evidence from the data used in this study showed paltry amount allocated by the companies for environmental financing. Oil and gas companies are responsible for a large amount of environmental degradation and pollution in Nigeria and as such have the larger share of responsibility to the environment. The allocation by the companies and the poor impact on their financial performance implies the companies have failed the stakeholder's theory. The findings support the studies of Obiora, Onuora, and Sandra (2022), Ahakiri, Raphael and Ogar-Abang (2023); Ihenyen and Ikegima (2023) and Korolo (2024) were laging behind. But contrary to Kansilembo, Anrusha and Sachin (2023) that stakeholders' equity funds were reduced, possibly due to reduced spending on environmental costs during that period

CONCLUSION AND RECOMMENDATION

The global awareness of sustainability issues intensifies the level of disclosures of sustainability information which also contribute to gaining competitive edge and enhancing organization survival especially in the developing economies like Nigeria. Through sustainability reporting, quality of financial report can be enhanced. Sustainability reporting is an organization report reflecting its environmental, social, and economic performance or activities. The report communicates the sustainability performance or activities of the company to its stakeholders. Based on the unique activities of oil and gas companies and the nature of their businesses which in most cases leads to environmental degradation and pollution, sustainability reporting has become necessary to meet with global requirement of been responsible to their environment and stakeholders of the business. Findings in this study have proven that sustainability information disclosures by oil and gas companies in Nigeria enhance financial performance. It was observed that social responsibility disclosure negatively impacts on the returns o assets of the companies. However, environmental and governance disclosure showed positive effect on their companies returns on equity. Evidence provided a conclusion that sustainability reporting actually led to improved financial performance of the oil and gas companies in Nigeria.

Based on the findings made in the study it was recommended that management and stakeholders of the oil and gas companies in Nigeria should continue to be socially responsible by allocating more funds to areas that require their financial support. It is argued in this study that social responsible provides rewards that are more than monetary. It influences their image and encourages patronage by local and foreign investors, governments and non-governmental organizations.

The present state of the board size and composition of the investigated companies show that their governance has made positive and meaningful impact on the companies' finances, it is therefore imperative that this board size should be maintained by the stakeholders of the companies.

There is need for the oil and gas companies to be more environmentally responsible and allocate more funds to green environment. The Nigerian government needs to look at this area of companies report for urgent action.

CONTRIBUTION TO KNOWLEDGE

This study has shown that it is not in all cases that corporate social responsibility provides monetary reward; rather it can lead to other non-financial rewards. The study has also shown that most of the oil and gas companies in Nigeria invest little in green environment which requires urgent government attention to address this problem.

Suggestions for further duties

It is therefore imperative that subsequent research should be extended to oil and gas companies not investigated in this study. This study should also be extended to other sectors in Nigeria.

Conflict of interest

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