An Exploratory Research on Effect of Green Accounting on Financial Performance of Oil and Gas Companies in Nigeria

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Abstract
Corporate actions have had effect on environmental ecosystem requiring holistic reporting of such actions which must reflect not only economic impacts and benefits but also environmental and social impacts. This study was an exploratory research carried out to examine the effect of green accounting practices on financial performance of oil and gas companies in Nigeria. This was premised on the assumption that green accounting should increase the quality of corporate Services and products by increasing the efficiency of corporate operations and reduction of waste. Desktop approach was adopted to explore the review of existing empirical studies conducted in Nigeria on green accounting practices of oil and gas firms between 2013 and 2022. Findings from the reviewed studies revealed that green accounting significantly

influenced financial performance of quoted oil and gas firms in Nigeria over the period reviewed. It was, therefore, recommended that management of oil and gas companies pay attention to environmental cost and what their operational effects has on the social and environmentalecosystem.

Keywords: *Green Accounting; Financial performance, operational ecosystem.*

1. Introduction

Green accounting is a type of accounting that attempts to factor environmental costs into the financial results of operations. It has been argued that gross domestic product ignores the environment and therefore decision makers need a revised model that incorporates green accounting. Environmental pollution is one of the problems facing the world today, due to its impact on society, nature and performance (Arumona *et al*., 2021). The phenomenon of environmental pollution has received increasing attention in recent times, especially in light of the industrial progress in the contemporary world and the diversity of sources of pollution, and the attempt of industrial companies, particularly oil and gas firms to get rid of its waste harmful to the environment and people (Onoh *et al*., 2023). As a result of the development of interest in environmental performance as one of the foundations of development in any country, non-use of modern scientific methods that analyse environmental costs and provide detailed information on those costs and the efforts and amounts that companies bear for the purpose of environmental protection will give guaranteed results on the extent of their success or failure (Sanni and Kolawole, 2019).

Therefore, new concepts of accounting emerged, such as green accounting, and the names have multiplied across stages of concern for the environment (accounting for a sustainable environment, environmental accounting, environmental impact accounting, social responsibility accounting, etc.), and then the concept of green accounting emerged when it was considered the subject of the system (Cletus *et al*., 2022). The environmental protection is one of the foundations of economic development, and that preserving the environment and resources is a right for society, and environmental issues have become a social matter at the local, national and international levels, that needed development of accounts in line with the environmental problem at the level of the institution and the whole economy (Ihenyen and Ikegima, 2022). According to Ojo and Balogun (2019), Green accounting is important for developing economies, because green accounting helps in saving environmental and development problems. Environmental accounting will help countries in addressing the economic problems associated with climate change.

It is observed that in environmental regulations, there is a shift from the ‘command and control’ approach to market-driven forms in which pollution prevention alternatives are replacing pollution cleaning approach. It follows therefore, that determining the appropriate pollution prevention approach may lead to additional decisions to be taken by management. Such decisions may include proper environmental cost and green management accounting to reduce the impact of the firm’s operation on the environment. However, most oil and gas firms pay little or no attention to issues of green or environmental accounting, with dire consequences on the environment and host community. Therefore, in the light of the background of increasing environmental attention, and the fact that the oil and gas sectors having profound production

impact on the environment, the study explores the effect of green accounting on the financial performance oil and gas companies in Nigeria.

The raising effect of oil and gas firm's operations on the environment have continue to post a challenge on the people and the host communities. This is due to the lack of a clear framework such as the green accounting standard that could ensure that firms are accountable for their actions in the environment. Green or environmental accounting involves the process of communicating the social and environmental effects of organizations' economic actions to particular interest group within society and to society at large. As such it involves extending the accountability of organizations (particularly companies) beyond the traditional role of providing a financial account to the shareholders. Such an extension is predicated upon the assumption that companies do have wider responsibilities than simply to make money for the shareholders (Sumiati *et al*., 2021). In this case it is a comprehensive approach to ensure good corporate governance that includes transparency in its social activities. The problem is that conventional approaches of cost accounting have become inadequate since conventional accounting practices have ignored important environmental costs and activities impacting consequences on the environment. Corporate neglect and avoidance of environmental costing leave gap in financial information reporting. There is no completeness and correctness of fair view to users of financial information, such as shareholders, environmental regulatory agencies, environmentalists and potential financial investors. However, there are currently only limited requirements for any formal identification or reporting with regard to environmental assets, liabilities or contingencies.

The key problem is that there are few formalized definitions of what environmental assets or environmental contingencies are, although some progress has been made in this area. There is no clear stipulation of environmental issues in standards as a basic requirement, since no such specific standard exists, and the present standards include minimal guidelines concerning environmental issues. This implies the problem of such comparison among the reports, inadequate management of environmental costs and different calculating methods among firms. Also, the lack of effective green management accounting, green cost accounting and the absence of clear environmental accounting standards affect green account practice in oil and gas firms and makes comparison between firms not possible because method of accounting is different. It is on this backdrop that the study was carried out to provide solutions to the research problems while also contributing in reducing the literature gap on the effect of green accounting on the financial performance of oil and gas firms in Nigeria. The objective of this paper was to investigate the effect of green accounting on financial performance of oil and gas companies Nigeria 2013-2022.

2 Review of Related Literature

2.1 Conceptual Review

Some relevant concept about the study are reviewed in this section.

2.1.1 Concept of Green Accounting

Green accounting is a term with a variety of meanings. In many contexts, green accounting is taken to mean the identification and reporting of environment specific costs (Polycarp, 2019). Green accounting is a method of measuring, in economic terms, the

performance of any type of organization in relation to the environment. The goal is to provide information about the company's operational performance based on environmental protection. Conventional accounting only provides economic information that is financial in nature to shareholders and bondholders for decision making. Performance measures need to be increased to improve existing performance measures. Environmental impacts need to be reported as a manifestation of responsibility towards stakeholders (Okon *et al*., 2023). Green accounting aims at achieving sustainable development, maintaining a favourable relationship with the community, and pursuing effective and efficient environmental conservation activities. The accounting procedures allow a company to identify the cost of environmental conservation during the normal course of business, identify benefit gained from such activities, and provide the best possible means of quantitative measurement, in monetary value or physical units, and support the communication of its results.

Green accounting is a type of accounting that attempts to incorporate environmental costs into the financial results of operations (Benson *et al*., 2021). It is accounting for any costs and benefits that arise from change to a firm's, products and processes where the change also involves a change in environmental impact. Green accounting is a relatively new concept which aims to include in the traditional measurement of economic development the cost for using the environment as inputs to production and as a sink for wastes. From the point of view of green accounting, land, water, and other natural resources are treated as inputs and assets in the production of goods and services of an entity (Ilelaboye and Alade, 2022). Green accounting is the practice of incorporating principles of environmental management and conservation into reporting practices and cost/benefit analyses (Carandang and Ferrer, 2020). Green accounting allows a business to see the impact of economically sustainable practices in everything.

It allows accountants to report on the economic impact of those decisions to stakeholders so as to allow for proactive decision making about processes that simultaneously meet environmental regulations while adding to the bottom line. Green accounting according to Damieibi (2023), mainly focuses on the role in which an enterprise has toward the environment. Environmental change has a bearing change in not only the environment but also in the economy. A suitable environment has a positive impact on the business sector by creating an appropriate environment for enterprising (Tantua *et al*., 2023). Green accounting examines how the environment affects the financial accounting system in terms of costs and benefits. It is an approach to measure and communicate information related to environmental activities of economic units with environmental impact to the parties concerned and society in a manner that enables control and evaluation of their environmental performance (Amosun and Akintoye, 2023). Green accounting has led to sustainable development by creating a peaceful environment for the enterprise (Okudo and Amahalu, 2023).

2.1.2 Forms of Green Accounting

Green accounting involves estimation of environmental expenditures/cost,

capitalization of those environmental expenditures, identification of environmental liabilities and measurement of environmental liabilities. There are several forms of green or environmental accounting including: Green management accounting: Green or environmental management accounting is the identification, prioritization, quantification or qualification, and incorporation of environmental costs into business decisions (Ikpor *et al*., 2019). Green management accounting uses data about environmental costs and performance for business

decisions. It collects cost, production, inventory, and waste cost and performance for business decisions. Environmental management accounting thus represents a combined approach which provides for the transition of data from financial accounting and cost accounting to increase material efficiency, reduce environmental impact and risk, and reduce costs of environmental protection.

Green or Environmental Cost Accounting: The environmental cost accounting deals with environmental costs in order to reach the full cost accounting, i.e. the identification, evaluation, and allocation of conventional costs, environmental costs, and social costs to processes, products, activities, or budgets. In some organizations, accountants are held responsible to identify and track green costs often times working with site, research and development, and production managers when planning their budgets. In the past, such costs were buried in overhead preventing a clear picture of the cost savings and benefits to the product, process, system or facility responsible for the green initiatives. Green accounting help management recognize that the tax benefits, rebates and lower costs of being environmentally friendly add up to a real bottom-line reward for doing the right thing (Ordu and Amah, 2021). Environmental financial accounting: Environmental cost accounting, environmental management accounting, ecological accounting and natural resource accounting. Environmental financial accounting aims to the true disclosure in financial statements in the end of period. That is including environmental dimension in the published sheets of operations.

Environmental Expenditures/Costs: These are expenses or costs related to environmental measures including production-related costs and product research and development expenditures which are incurred primarily for ensuring protection of environment. Total environmental expenditures can be classified into six categories such as capital investment, operating costs, research and development cost, environment administration and planning, expenditures for remedial measures and recovery measures (Fabian and Kenechukwu, 2022).

Ecological Accounting: Ecological cost accounting is used to refer to the preparation of accounts according to physical data only. In this respect, ecological accounting is mainly used to prepare an asset management plans at local administration level. Such plans provide a tool to evaluate the condition and life cycle of any particular physical asset.

Natural Resource Accounting: Natural resource accounting is called after inclusion of environmental aspects into the system of national accounts. Emphasis is given to natural assets, deterioration in its quality in order to get an environmentally adjusted economic indicator such as environmental gross national income (Chude *et al*., 2022).

2.1.3 Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It shows the general well-being of a firm and its true financial position (Riyadh *et al*., 2020). Financial performance can be looked at, as the level of performance of an organization at a point in time. This could be measured in terms of overall profits and losses or asset utilization. According to Emmanuel (2021) the measures of financial performance of an organization are as varied as the motive for the measurement. Organisational financial performance is measured to give the account of stewardship by the management team to the shareholders. The key aspect of this involves measuring the profitability, return on investment, return on asset and growth prospect of a company. The measurement of the effect of environmental accounting on performance examines the nature of the relationship between some indicator of environmental reporting or performance with the

company's financial performance obtained from the accounting information such as the historical audited financial statements of the respective companies.

Financial results reflect the achievement of the company's financial goals within a certain period of time. Financial performance can measure how well a company uses its assets to generate income (Lusiana *et al*., 2021). Financial performance is commonly used as an indicator of a firm's financial health over a given period of time. In this study, financial performance is measured return on equity and return on asset. Returns on equity measures the overall performance of an entity; it shows the earning power of investors' book value, often used in comparing two or more entities in an industry. A high return on equity is an indication that an entity accepts a strong investment opportunity and employs effective expense management.

Return on equity is net profit after tax and preference dividend scaled by the number of shares. Studies have shown that green accounting practices increased earnings of firms. Amalya *et al*. (2023) in their study revealed that corporate social spending improves the return on equity of firms. (Olaoye and Alao, 2023) reported a positive relationship existing between corporate responsibility and return on equity. Returns on assets as one of the traditional accounting and profitability measures employed to measure financial performance, return on assets shows whether a company is able to generate an adequate return on the assets employed. In a study on environmental disclosure and financial performance of food and beverage companies in Nigeria by Choiriah and Lysandra (2023), it was revealed that there is a significant relationship between environmental accounting disclosure and return on assets.

2.1.4 Effect of Green Accounting on Financial Performance

Green accounting aims to provide environmental information to external and internal stakeholders, but the environment must be identified, recorded, measured and evaluated fully in reports by internal and external parties. and social phenomena, which should be presented as they are and relevant (Ezeagba *et al*., 2017). Currently, green accounting reporting, in this case the disclosure of carbon emissions in Indonesia, is still voluntary, so not all large manufacturing and banking companies in Indonesia disclose information about disclosing carbon emissions in their reports (Aryani *et al*., 2023). Based on this, the role of green accounting in making the information contained in the financial statements can be presented
more fully, namely containing information about the company's responsibility for the use of resources related to the environment.

Applying green accounting to companies also enables sustainable profit growth and allows stakeholders to positively assess the financial results presented. Investor interest in environmentally sensitive and concerned companies stems from the fact that companies tend to be able to generate long-term profits to improve their financial performance (Ifurueze and Mayah, 2022). Environmental accounting, often called green accounting, is an accounting application that allows companies to add costs associated with environmental conservation efforts, including environmental costs at the company's expense. In green accounting, its application is a unique attraction for consumers.

2.2 Theoretical Review

The stakeholder theory forms the theoretical foundation for this study.

The stakeholder theory was propounded and developed by Freeman (1984). In an organization, there are basically two types of stakeholders (Internal and external). Most internal

stakeholder includes management, employee and board while external stakeholder include shareholders, communities, creditors, debtors/customers, government agencies, and environment (Yaakoo *et al*., 2021). Basically, stakeholder theory is based on proposition that a firm 's success or otherwise depends on a successful management of all the relationships that a firm has with its stakeholders. It is argued that stakeholder theory is one of the theories that seeks to explain the practice of presenting social information, focused on the role it can play in relations between organizations, governments, individuals, associations and societies in general. Nguyena and Trana (2019), reported that from an organizational point of view, stakeholders' theory is based on a model of accountability for all actors, be it normative, descriptive or the explanatory power they hold in the context of CSR; and includes the responsibilities of the company and the transparent nature of its activities.

A crucial element that the company can use to manage stakeholder relationships is precisely the information (financial, sustainability, or both) managed to gain the support and approval of corporate strategy from the stakeholders, without raising an objection. Voluntary disclosure is amply justified by the stakeholder theory and consequently the theory of legitimacy that is considered an appropriate means to maintain and develop relations between the various interest-bearing groups and the company. Furthermore, stakeholder provides another theoretical framework for explaining the relationship between various stakeholders and management; and potentially useful in examining or influencing corporate social disclosures or sustainability environmental reporting by organization in the annual corporate reports.

In line with this, one of the genuine acknowledgments by industry of a duty to the environment is one reason for the growth of voluntary environmental guidelines and policies. Second, these codes are a response to shareholder, customer, interest group and community pressure on companies to be transparent and accountable in environmental management, allowing industry to demonstrate environmental responsibility and enhancing public relations. Third, companies have adopted these co-operative and flexible approaches to environmental regulation in order to avoid prescriptive and costly command and control mechanisms.

2.3 Empirical Review

Some related and relevant previous researches are reviewed hereunder.

Ikpor *et al*. (2019) investigated environmental accounting and sustainable financial performance: Evidence from the Nigerian petroleum industry. The study was conducted to ascertain the influence of environmental accounting on financial performance. The period of the study was from 1970 to 2017 and the essential variables of the study were environmental accounting (independent variable) measured by environmental operating costs (EOC) and environmental prevention costs (EPC) and financial performance (dependent variable) measured by profit after tax (PAT). The population of the study consisted of forty-eight (48) petroleum companies in Niger Delta and ten (10) out of the 48 companies were sampled for the study. Relevant data for the study were obtained from the published annual reports and financial statements of ten (10) petroleum companies operating in the Niger Delta part of Nigeria sampled for the study. To establish the influence of the independent variable on the dependent variable, data analysis was conducted using ordinary least square (OLS) regression method. From the analysis, it was found that EOC and EPC exerted significant and negative influence on the performance of petroleum firms in Nigeria.

Nguyena and Trana (2019) investigated disclosure levels of environmental accounting information and financial performance: The case of Vietnam. The study was conducted to cover

the period from 2013 to 2017 and the relevant variables for the study were financial performance (dependent variable) measured by return on assets (ROA) and the control variables used in the study were business size (BS), financial leverage (LEV), listing period (AGE) and independent auditors (AUD). To establish the influence of the independent variable on the dependent variable, relevant data were extracted from the published annual reports and financial statements. The data were analysed using both descriptive and regression analytical tools. The results of the analysis indicated that environmental accounting had an insignificant influence on financial performance of the firms.

Polycarp (2019) examined environmental accounting and financial performance of oil and gas companies in Nigeria. The study sought to ascertain the influence of environmental accounting on financial performance of oil and gas companies in Nigeria. The study was conducted to cover the period from 2015 to 2017 and the key variables used in the study were environmental accounting (dependent variable) and financial performance (independent variable) measured by return on capital employed (ROCE), net profit margin (NPM), dividend per share (DPS) and earning per share (EPS). The study employed the use of questionnaires to receive direct (primary) information from companies that produces environmentally friendly products. The data obtained were analysed using regression analytical technique. The results of the analysis showed that environmental accounting exerted an insignificant influence on financial performance of the studied firms.

Sanni and Kolawole (2019) conducted a study on influence of environmental accounting on the performance of pharmaceutical companies in Nigeria. The study aimed at studying the influence of environmental accounting on performance of pharmaceutical firms in Nigeria. The study was conducted to cover the period from 2009 to 2015 and the key variables used in the study were environmental accounting and performance proxied by firms' size (FS), profit after tax (PAT) and leverage (LEV). The study employed secondary data which was obtained from the financial statements of all listed pharmaceutical companies in Nigeria. To establish the influence of environmental accounting on performance, panel data regression analysis was used to analyse the data obtained. From the analysis, it was discovered that environmental accounting positively influenced performance proxied by PAT, FS and LEV. Thus, it was concluded that environmental accounting positively influenced the performance of pharmaceutical companies in Nigeria.

Carandang and Ferrer (2020) conducted a study on effect of environmental accounting on financial performance and firm value of listed mining and oil companies in the Philippines. The study aimed to determine the influence of environmental accounting on firm profitability and firm value of twenty-four (24) publicly listed mining and oil companies in the Philippines from 2012 to 2016. The relevant variables used in the study were environmental accounting (independent variable) measured as environmental accounting disclosures (EAD) and environmental costs reporting (ECR); profitability measured by net profit margin (NPM) and return on equity (ROE) and firm value measured by Tobin's Q.
(dependent variables). Relevant data were obtained from the published annual reports and financial statements of the entities sampled for the study. The data were analysed using panel regression technique and the results showed that environmental accounting disclosure had significant influence on profitability (ROE) with the moderating effect of location, firm size, board size and firm value (Tobin's Q).

Riyadh *et al*. (2020) conducted a study on the analysis of green accounting cost impact on corporations' financial performance. The study sought to examine the influence of green accounting disclosures on financial performance. The study was conducted to cover one year

period (2018) and the key variables of the study were green accounting (independent variable) measured by environmental cost (EC) and financial performance (dependent variable) measured by net profit margins (NPM), return on assets (ROA) and earnings per share (EPS). Data for the study were obtained from one hundred (100) multinational corporations and the data were analysed using multiple regression analysis were employed. From the analysis, it was found that green accounting costs exerted negative influence on financial performance.

Benson *et al*. (2021) studied the effect of green accounting on financial performance of oil and gas companies in Nigeria. The aim of the study was to investigate the effect of green accounting on financial performance of oil and gas companies in Nigeria. The period of the study ranged from 2010 to 2020. The independent variables of the study were environmental accounting and green management accounting, and the dependent variable of the study was financial performance measured by return on assets (ROA) and return on equity (ROE). The study was quantitative in nature and thus, secondary data were obtained from annual reports and financial statements of the companies sampled for the study. The data were analysed using both descriptive and simple linear regression approach. The results obtained from the analysis indicated that environmental cost accounting exerted significant influence on the financial performance (ROE and ROE) of oil and gas companies. Also, it
was discovered that green management accounting had significant influence on the ROA and ROE of oil and gas firms.

Emmanuel (2021) examined green accounting reporting and financial performance of manufacturing firms in Nigeria. This study examined green accounting disclosure and its effect on financial performance of listed manufacturing firms in Nigeria. The dependent variable of the study was financial performance measured by return on assets (ROA) and return on equity (ROE) and the independent variable of the study was green accounting reporting and the study covered the period of ten (10) years from 2010 t0 2019. Data for the study were obtained from the annual reports of forty (40) out of the sixty-six (66) manufacturing companies whose shares were traded on the floor of Nigerian Exchange Group (NXG) as at 31st December 2019. Data analysis was conducted using descriptive statistics and the panel regression approaches. From the analysis, it was discovered that green accounting disclosure had direct and material influence on financial performance (ROA and ROE). However, the study also showed that there was a negative influence of green accounting disclosure on share price of manufacturing firms in Nigeria.

Ordu and Amah (2021) examined sustainability accounting and financial performance of oil and gas companies in Nigeria. The study was conducted to assess the between sustainability accounting and performance of selected quoted oil and gas companies in within the period of 2012-2017. The dependent variable used in the study was financial performance measured by return on Assets (ROA) and the independent variable of the study was sustainability accounting (SA) proxied with environmental expenditure (ENVSPND). Relevant data for the study were extracted from the annual reports of the entities sampled for the study and the data were analysed using correlational design and regression technique. From the analysis, it was discovered that environmental accounting had an insignificant influence on ROA of the oil and gas companies in Nigeria.

Sumiati *et al*. (2021) assessed the influence of green accounting and environmental performance on profitability. The study was conducted to examine the influence of green accounting and environmental performance on profitability. The period of the study ranged from 2016 to 2018. Profitability being the dependent variable was measured by return on equity (ROE). The independent variables green accounting and environmental performance were used

in the study. The population of the study consisted of one hundred and seven (107) companies listed on the Indonesian Stock Exchange (IDX) in the mining sector and the goods industry sector consumption. Data for the study were extracted from annual reports and financial statements of the entities and data analysis was conducted using descriptive statistics and simple linear regression technique. The results obtained from the analysis showed the green accounting had a greater impact in profitability compared to environmental performance.

Cletus *et al*. (2022) examined environmental accounting costs and financial performance of selected quoted oil and gas companies in Nigeria. The intention of the researchers was to examine the impact of environmental accounting costs on financial performance of the selected oil and gas firms in Nigeria. The period of the study was from 2000 to 2020 and the key variables of the study were environmental accounting costs (EAC) proxied by environmental pollution prevention costs (EPPC), environmental detection costs (EDC), environmental internal failure cost (EIFC) and environmental external failure cost (EEFC) and financial performance (dependent variable) was measured in terms of return on equity (ROE). To achieve the stated objective, secondary data was obtained from the annual reports and financial statements of Conoil, MRS Oil and Forte Oil. The obtained data were analysed using both the descriptive and inferential statistics. Results from the regression indicated that EIFC and EEFC had positive and significant influence on the financial performance of oil and gas companies in Nigeria while EPPC and EDC exerted insignificant effect on the financial performance of oil and gas companies in Nigeria. Thus, it was concluded that the EAC had significantly influenced the general financial performance of oil and gas industry in Nigeria.

Ihenyen and Ikegima (2022) investigated environmental accounting and

organisational performance of listed industrial sector companies in Nigeria. The study aimed to examine the impact of environmental accounting on organizational performance of listed industrial companies in Nigeria. The period of the study was from 2010 to 2020 and the relevant variables used in the study were environmental accounting (independent variable) proxied by waste management cost (WMC), community development cost (CDC) and employed health and safety cost (EHSC) and organizational performance measured in terms of return on asset (ROA), return on equity (ROE) and net profit margin (NPM). To establish the influence of independent variable on the dependent variable, relevant data were extracted from the published annual reports and financial statements of the entities chosen for the study. The data were analysed using canonical correlations and the results obtained indicated that the environmental accounting (WMC, CDC and EHSC) exerted substantial influence on organizational performance (ROA, ROE and NPM) of listed industrial sector businesses in Nigeria studied.

Ilelaboye and Alade (2022) investigated environmental accounting and financial performance of listed family-owned companies in Nigeria. The study sought to investigate the influence of environmental accounting on financial performance of the listed familyowned firms in Nigeria. The study was conducted to cover the period from 2012 to 2020 and the relevant variables used in the study were financial performance (dependent variable) measured by return on capital employed (ROCE) and environmental accounting proxied by restoration cost (RC), community development cost (CDC) and health and safety cost (HSC).

The population of the study consisted of 12 family-owned companies across industrial and oil and gas sectors that were quoted on the Nigerian Exchange Group (NXG). The study adopted purposive sampling technique to select six (6) family-owned companies. Data were extracted from the annual reports and financial statements of the sampled companies. Data analysis was conducted using both descriptive statistics and ordinary least squared (OLS) techniques

analytical approach. The analysis indicated that RC had adverse and inconsequential influence on the financial performance, and CDC had adverse and material influence on financial performance while HCS exerted a direct and insignificant influence on financial performance.

Amalya *et al*. (2023) examined the relationship of green accounting on financial performance with environmental performance as a mediation variable. The purpose of the study was to examine the mediation of environmental performance on the relationship between green accounting and financial performance. The period of the study was from 2019 to 2020 and the key variables of the study were financial performance (dependent variable) measured by return on assets (ROA) and green accounting (independent variable) measured by environmental cost. The sample size of the study was three (3) selected industrial selected from the population of thirty-six (36) industries quoted on Indonesia Stock Exchange (IDX). Data for the study were collected from the annual reports and financial statements of the entities and analysis was conducted using simple linear regression approach. The results indicated that green accounting exerted significant influence on financial performance (ROA) of the entities sampled for the study.

Aryani *et al*. (2023) conducted a study on effect of green accounting, financial performance on company value with profitability as an intervening variable: Study on mining sector companies listed on IDX for the period 2018-2021. The purpose of the study was to examine the influence of green accounting on financial performance and company value using profitability as the intervening variable. The period of the study was from 2018 to 2021 and the key variables of the study were green accounting (independent variable) proxied by environmental performance, financial performance (independent variable) measured by total asset turn over (TATO), inventory turnover (ITO) and receivable turnover (RTO) and profitability (ROA and ROE). Relevant data for the study were collected from the published annual reports and financial statements of the entities sampled for the study. Data analysis in the study was conducted using structural equation modelling (SEM) and the results of the analysis showed that green accounting had significant influence on profitability and value of the companies studied.

Choiriah and Lysandra (2023) in a study to examine the effect of green accounting, quality management on financial performance, and green innovation as moderation variables. The study empirically examined the influence of green accounting and quality management on financial performance with the moderating effect of green innovation. The period of the study was from 2018 to 2021 and the key variables of the study were financial performance (dependent variable) measured by return on assets (ROA), and the independent variable were green accounting and quality management. Green innovation was used as the moderating variable. Appropriate data for the study were extracted from the published annual reports and financial statements of traditional banking companies listed on Indonesian stock exchange (IDX). The data were analysed using descriptive statistics and simple linear regression technique. The results obtained indicated that green accounting exerted significant influence on financial performance. The results obtained from the analysis also showed that quality management had no influence on ROA of the firms studied.

Olaoye and Alao (2023) investigated green accounting practices and business health of listed oil and gas firms in Nigeria (2012-2021). This study was carried out to examine the effect of green accounting practice on business health of listed oil and gas firms in Nigeria.
The period of the study ranged from 2012 to 2021. Accounting practices in the study being the independent variable was measured by waste management practice disclosure (WMPD), environmental protection practices disclosure (EPPD) and pollution prevention practices

disclosure (PPPD) and financial performance which was the dependent variable used in the study was proxied by return on asset (ROA) and earnings per share (EPS). Data for the study were obtained from the financial reports of the entities sampled for the study and the data were analysed using ordinary least square (OLS) technique. The results obtained for the analysis conducted showed that WMPD had a negative and insignificant influence on EPS.

3 Methodology

Explorative research design was adopted in the study because the researcher was concerned about reviewing available literature in this critical area of interest. With the idea gathered from the empirical literature of studies previously conducted, conclusion and recommendations were made.

4 Discussion of the Findings

This study examined the influence of green environmental accounting on the financial performance of listed oil and gas companies Nigeria with the period of 2013-2022. From the available studies reviewed, it was observed that green accounting significantly influenced financial performance of listed oil and gas companies in Nigeria. The finding was supported by (Amelya *et al.,* 2023) who found that environmental cost has significant effect on the financial performance of oil and gas companies in Nigeria. Also, the finding was in line with the study of (Aryani *et al.,* 2023), who found that environmental accounting has significant effect on the financial performance of oil and gas companies in Nigeria. Corroborating with the findings of the study, (Carandang and Ferrer, 2020) indicated that green accounting enhances environmental performance of organisation.

5. Conclusion and Recommendations

Green accounting is an emerging aspect of accounting science that is expected to influence financial performance of companies in the near future. The adoption of basic elements of green accounting will portray the role of environment in the economy as well as render easier the analysis of macroeconomic questions with the help of green accounting measures and thus, will lead the economy to a viable path. However, the study explored the influence of green accounting on the financial performance of oil and gas companies in Nigeria. Two dimensions of green or environmental accounting were observed in the study to be very essential such as environmental cost accounting and green management accounting. The results from the analyses of previous studies reviewed showed that the two constructs of green accounting influenced the financial performance of oil and gas firms measure by return on equity and return on asset. Specifically, the study concluded that environmental cost accounting has significant effect on financial performance of oil and gas companies in Nigeria. Similarly, green management accounting has a significant effect on financial performance of oil and gas companies in Nigeria. Based on the findings of the study, it is concluded that adequate green or environmental could enhance the operating environment of the firm as well as the financial performance of oil and gas firms.

Based on the findings, the following recommendations were proffered:

i. Management of oil and gas companies in Nigeria should pay particular attention to environmental cost accounting to enhance the firm's operating environment and the financial performance of the companies. ii. Management of oil and gas companies should effective green

accounting to reduce the impact of the firm's operation on the environment. Also, oil and companies should ensure that they comply with the environmental laws of the nation as it will go a long way in enhancing their performances.

iii. Oil and gas companies should ensure environmental awareness within the host communities in order to create a cordial relationship between the companies and the host communities. Also, oil and gas companies should design their operation to reduce waste or emission during their operations.

6. Suggestion for further studies

The study may be replicated by the incorporation of economic data, to further examine the empirical implications of the independent variables on the dependent variable.

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