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ENVIRONMENTAL ACCOUNTING PRACTICES AND ITS BENEFITS TO OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT

This study examined environmental accounting practices and its benefits to oil and gas companies in Nigeria. Two research questions guided the study. An ex-post research design was used. From the selected companies, proportionate sampling technique was used to select 15 employees from each making a total of 150 employees as sample size. The researcher self-developed questionnaire tagged: Environmental Accounting Practices and Benefits Questionnaire (EAPBQ) was used for data collection with 0.93 as reliability coefficient. Descriptive statistics of mean and bar-chart were adopted in answering and presenting research questions 1 and 2. The findings of the study indicated that there was lower level of environmental accounting practices in oil and gas companies in Nigeria. Oil and gas companies accrued benefits from environmental accounting practices in Nigeria such as disclosing information about environmental performance, commitment to sustainability, transparency and accountability to stakeholders, comply with evolving environmental regulations and standards, encouraging eco-efficiency, and companies to invest in more eco-efficient. It was also recommended that government should through the Ministry of Environment and natural resources and accounting regulating bodies make environmental accounting practices a compulsory practice by oil and gas companies in Nigeria. Environmental accounting practices impact of organizational activities on the environment should be made compulsory by regulatory agencies of these companies.

Keywords: Environmental Accounting Practices, Benefits, Oil-Gas Companies, Nigeria.

Introduction

Part of the sustainable development goals (SDDs) is the environmental sustainability in which every firm are pursuing to attain. Environmental sustainability refers to the responsible management of natural resources to fulfill current needs without compromising the ability of future generations to meet theirs. It aims to balance ecological, economic and social goals, such as reducing carbon emissions, promoting renewable energy and ensuring equitable resource access. Some organizations are putting environmental sustainability at the forefront every day and finding every antidote for sustainable stage that would not affect their company as well as environment in which they operate. Nowadays, companies most especially, oil and gas firms are beginning to utilized environmental accounting practices as one of the strategy towards the attainment of firm goal achievement. Environmental accounting practices are the generation, analysis, and use of financial and non-financial information in order to optimize corporate, environmental and economic performance, achieving a sustainable business the ultimate objective of environmental accounting is to clearly indicate the environmental cost of each process. Edeh, Chukwuma, Ishaku and Adama (2020) stated that the depletion of the ozone layer of the earth's atmosphere caused by emission of gasses through industrial activities and processes have given rise to various environmental hazards such as direct ultra-violet rays to the earth surface, global warming, pollution and loss of aquatic lives. Environment accounting has been defined in diverse ways by different authors. Edeh et al., (2020) defined environmental accounting as any form of accounting involving the collection, recording and reporting of internal and external information about the financial and non-financial impact of organizational activities upon individuals, society and the physical environment.

Yakhou and Dorweiler (2014) argued that environmental accounting is an inclusive field of accounting that provides reports for internal use, generating environmental information to help management make decision on pricing and capital budgeting and helps to disclose environmental information to the public and to the financial community. Operationally, environmental accounting is an extension of both financial and management accounting that provides environmental effect, caused by organisations in the course of their day-to-day business activities and the reciprocate efforts made to remade the hazard caused to the environment for ecological sustainability. Wells (2015) argued that the development of Environmental Accounting was as a result of the limitations of conventional accounting to measure and account for resources that don't only affect the financial stakeholders but also the non-financial stakeholders like the society and environment. The limitations include: i) Financial accounting focuses on the information needs of parties involved in making resource allocation on decisions about the entity. ii) Conventional accounting failed to assign monetary costs to the consumption of natural resource such as air, water and land fertility among others. Also, the development of Environmental Accounting became necessary because of the global concern over environmental safety and health, and environmental laws and regulations issued by the government, making it mandatory for organizations to disclose their environmental activities and deliberate efforts for greening the environment (Yakhou & Dorweiler, 2014; Omokhudu, 2017).

Environmental accounting practices helps an organization to quantify the impacts of its activities on the host community. This does not involve only the expenses incurred but also the cost benefits generated in an accounting period. Environmental accounting practices include information regarding treatment of chemicals generated in a production process, labour cost (embedded in salaries and wages), disposal costs, fines and penalty costs or savings, regulatory fees, maintenance costs, cost savings in switching to more environmentally friendly methodologies, materials costs among other (Iliemena, 2020). The manners in which firms apply environmental accounting practices differ depending on activities engaged in the period and the management decisions on what should constitute cost information. Nigeria as a developing nation with her abundant natural resources (Oil and Gas products) is facing difficult challenges in the control of environmental degradation. Oil exploration activities have reduced the quality and usefulness of life through gas flaring, industrial pollution, oil spillage, deforestation, global warming, and other related issues of health concern. Although, the country derives huge amount of money daily from the sale of crude oil and its by-products, one would generally assume that this money if properly managed should have significant impact on the development of oil and non-oil producing areas of the country (Iliemena, 2020).

Mayndarto and Agustine (2021) submitted that environmental accounting practices involves pollution prevention and continuous re-evaluation of firms' production processes which often creates opportunities for firms to innovate by strategically modifying their production, and recycling by-products that would otherwise be discharged into the natural environment. Environmental accounting practices cost guidelines, for communication to different stakeholder groups, are not available for Nigerian companies; however, there have been efforts on the part of government towards enacting laws to enhance environmental sustainability in Nigeria (Olushola, 2020). These include Environmental Impact Assessment Act 2004, Environmental Guidelines and Standards for Petroleum Industry Act, 2002, National Environmental Standards and Regulations Enforcement Agency Act, 2004. Hence, environmental accounting practices in Nigeria is more of voluntary reporting which does not encourage net profit. Damieibi (2023) revealed that environmental accounting practices entailed the provision of appropriate information in the financial statements regarding estimated social cost occasioned by production externalities on the environment and how much deliberate intervention cost had been incurred to bridge the gap between marginal social cost and marginal private cost by a firm. He further opined that environmental accounting practices involves the identification, measurement and allocation of waste management costs, and the integration of these costs into business. It also encompasses the means of communicating the information to companies' stakeholders. Enahoro (2009) averred that waste management does not only refer to costs paid to comply with regulatory standards but are also costs incurred to reduce or eliminate releases of hazardous substances into the atmosphere.

Theoretical Framework

The theoretical framework for this study rest on stakeholder theory which was propounded by Freeman in 1984 cited in Falope, Emehelu and Ogala (2023). This theory proposes that business entity should be used as a vehicle for coordinating stakeholder interests, instead of maximizing shareholders' (owners') profit. This theory suggests organisation/management has a duty to put the interests of stakeholders first before the maximisation of the value of the firm's shareholders. These according to Adeyemo, Oyebamiji and Alimi (2013) prompted some firms to engage in social and environmental friendly activities and voluntary reporting of information so as to positively influence the stakeholders' opinion about their activities which is believed can add value to the organisation. Corporate disclosure and fair reporting policies and practices are considered to represent one important means by which the management can influence stakeholder's perceptions about their organizations. This theory is believed to influence the level of organizational performance if business confines to their responsibility as expected through reporting of their impact on the society and other stakeholders (Egbunike & Tarilaye, 2017). The stakeholder theory predicts positive relationship between the variables of interest, thus, reflecting the social and environmental accounting reported in the financial statement to explain positive association with earnings per share, return on asset and return on equity. This theory therefore suggest social and environmental accounting increases the stakeholders' satisfaction which by extension increases financial performance.

Statement of the Problem

Considering the role played by firm in economic development of a country, the environment in which they operated must be taking care of due to external negativity their activities production may have sent to the host community. So that the members of the community can see the industry as their own. Although, oil and gas companies outside Nigeria have been found doing so, but the case of Nigeria, particularly from Niger-Delta region is pathetic. This can sometimes be attributed to many factors like company insecurity to the plight of the community, bad leadership in the community, government oversight function missing among others. This study was an attempt to examined environmental accounting practices and its benefits to oil and gas companies in Nigeria.

Objectives of the Study

The main objective of the study was to examine environmental accounting practices and its benefits to oil and gas companies in Nigeria. The following are the specific objectives; to examine the:

1. level of environmental accounting practices in oil and gas companies in Nigeria;
2. benefits oil and gas companies can accrue from environmental accounting practices in Nigeria.

Research Questions

The following research questions guided this study:

1. What is the level of environmental accounting practices in oil and gas companies in Nigeria?
2. What are the benefits oil and gas companies can accrue from environmental accounting practices in Nigeria?

Methodology

An ex-post research design was used. Ex post facto design is considered a quasi-experimental type of study, which means that participants are not randomly assigned, but rather grouped together based upon specific characteristics or traits they share. Ex post facto research focuses on how actions that have already occurred can predict certain causes. A total of ten oil and gas companies in Lagos and Rivers states were selected using purposive sampling technique. From the selected companies, proportionate sampling technique was used to select 15 employees from each making a total of 150 employees as sample size. The researcher self-developed questionnaire tagged: Environmental Accounting Practices and Benefits Questionnaire (EAPBQ) was used for data collection. The questionnaire was divided into main two sections A. and B. Section A provided responses on demographic characteristics of the respondents while B examined items relating to level of environmental accounting practices and benefits oil and gas companies can accrue from environmental accounting practices. However, the questionnaire was validated by experts from the field of environmental accounting. All the corrections made were corrected by the researchers before proceeding. The questionnaire was subjected to pretest through selecting only 15 employees of oil and gas companies in Delta state who were parallel to the sample size. The exercises were done twice and all the data collected were subjected to Pearson Product Moment Correlation formula. The reliability coefficient of the questionnaire yielded 0.93. The researchers with the helped of 3 trained research assistants distributed the questionnaires to the respondents. After three weeks interval, a total of 139 copies were retrieved and used for analyses. Retrieval rate was 93% and death rate 7%. Descriptive statistics of mean and bar-chart were adopted in answering and presenting research questions 1 and 2.

Results

Research Question 1: What is the level of environmental accounting practices in oil and gas companies in Nigeria?

Table 1: Descriptive statistics on the level of environmental accounting practices in oil and gas companies in Nigeria

Items	Mean	SD	Remark
Your firm always account for environmental conservation cost in monetary term.	2.39	0.984	Disagreed
Your firm always account for environmental conservation cost in physical units.	2.51	0.904	Agreed
Your firm always account for environmental conservation cost in economic benefits.	2.58	0.922	Agreed
Your firm always prepared environmental management accounting annually.	2.55	0.936	Agreed
For every accounting year, firm made provision for environmental accounting practices.	2.49	0.999	Disagreed
Environmental accounting practice is now among your firm policy for sustainability.	2.57	0.976	Agreed
Cluster Mean	2.52		Agreed

Source: Field Survey, 2024

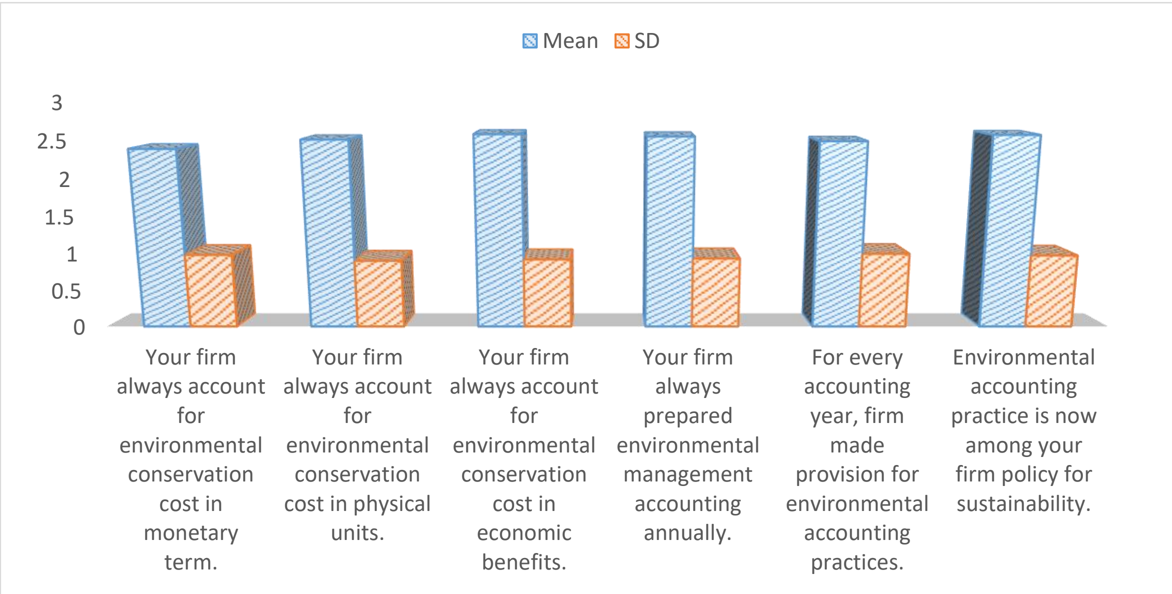

Figure 1: Bar-chart showing the level of environmental accounting practices in oil and gas companies in Nigeria

Table 1 indicated that cluster mean was 2.52 which greater than the bench mark of 2.50. This implied that there was lower level of environmental accounting practices in oil and gas companies in Nigeria.

Research Question 2: What are the benefits oil and gas companies can accrue from environmental accounting practices in Nigeria?

Table 2: Descriptive statistics on the benefits oil and gas companies can accrue from environmental accounting practices in Nigeria

Items	Mean	SD	Remark
Help in disclosing information about environmental performance.	3.11	0.899	Agreed
It helps oil and gas companies to demonstrate its commitment to sustainability	2.99	0.888	Agreed
It facilitates and increases oil and gas transparency and accountability to stakeholders	3.03	0.903	Agreed
It helps oil and gas companies to comply with evolving environmental regulations and standards.	3.21	0.599	Agreed
It encouraging eco-efficiency	3.24	0.789	Agreed
It encourages oil and gas companies to invest in more eco-efficient.	2.87	0.977	Agreed
It facilitates oil and gas companies' sustainable practices leading to innovations in process, products and services.	3.19	0.678	Agreed
Cluster Mean	3.09		Agreed

Source: Field Survey, 2024

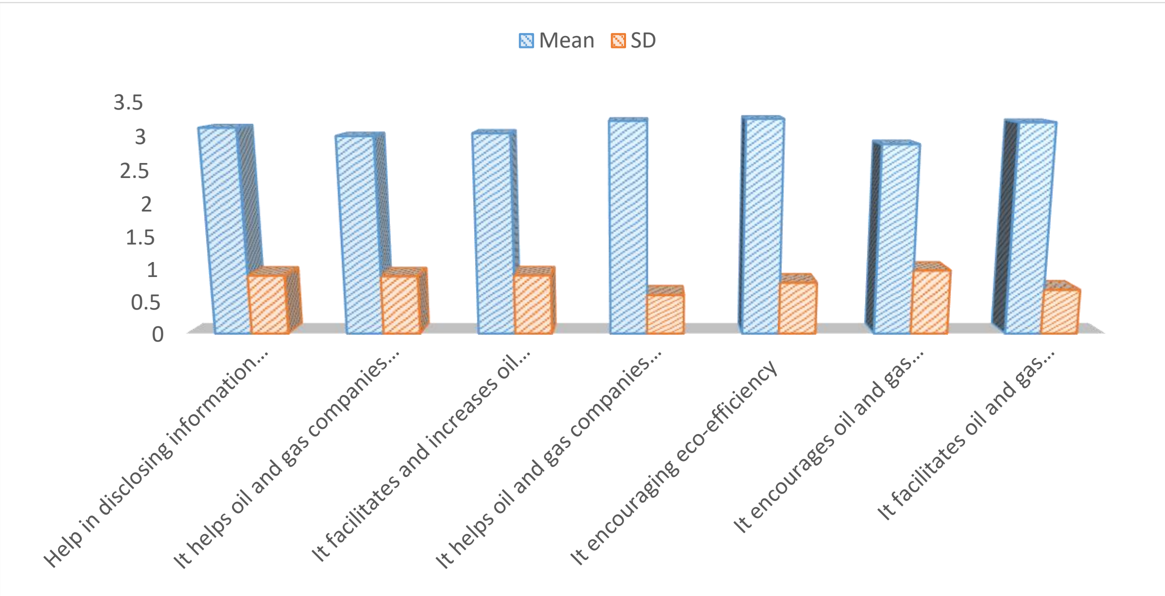

Figure 2: Bar-chart showing the benefits oil and gas companies can accrue from environmental accounting practices in Nigeria

Table 2 showed that cluster mean was 3.09 which greater than the bench mark value of 2.50. The implications of these results were that oil and gas companies accrued benefits from environmental accounting practices in Nigeria such as disclosing information about environmental performance, commitment to sustainability, transparency and accountability to stakeholders, comply with evolving environmental regulations and standards, encouraging eco-efficiency, and companies to invest in more eco-efficient.

Discussion of Findings

The findings of the study revealed that there was lower level of environmental accounting practices in oil and gas companies in Nigeria. It was also found that oil and gas companies accrued benefits from environmental accounting practices in Nigeria such as disclosing information about environmental performance, commitment to sustainability, transparency and accountability to stakeholders, comply with evolving environmental regulations and standards, encouraging eco-efficiency, and companies to invest in more eco-efficient. These findings were in tandem with Edeh *et al.,* (2020) who found that comply with environmental accounting practices by firm may enhance their performance and sustainability. Damieibi (2023) agreed that environmental accounting practices made the oil and gas firm to see the community where they operate as their own through ensuring environmental costs accounting impact of their activities to the people. Likewise, Falope et al., (2023) found that although environmental accounting practices positively influence sustainability, but most companies only do this at lower esteem.

Conclusions

Globally, the issues relating to environmental accounting practices have been given serious attention. Thus, this study examined environmental accounting practices and its benefits to oil and gas companies in Nigeria, the following conclusions were drawn from the findings of the study that oil and gas companies accrued benefits from environmental accounting practices in Nigeria such as disclosing information about environmental performance, commitment to sustainability, transparency and accountability to stakeholders, comply with evolving environmental regulations and standards, encouraging eco-efficiency, and companies to invest in more eco-efficient.

Recommendations

In line with the findings of the study, the following are the recommendations:

1. Government should through the Ministry of Environment and natural resources and accounting regulating bodies make environmental accounting practices a compulsory practice by oil and gas companies in Nigeria.
2. Environmental accounting practices impact of organizational activities on the environment should be made compulsory by regulatory agencies of these companies.
3. Defaulting companies should be sanctioned while companies that disclose their environmental activities should be encouraged with tax incentives by the government.

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