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Research Paper

Effect of Non Disclosure of Environmental Cost on Financial Performance of Selected Oil and Gas Firms In Nigeria

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Abstract
InNigeria,disclosureofenvironmentalaccountinginformationinannualreportofcompaniesisvoluntaryasthere are no accounting standards or regulatory and statutory guidelines that mandates such disclosures, companies adopt disclosure as a result of good industrial practice, pressure from environmental activist and advocates and relationshipwithparentcompany.ThisstudyanalyzedenvironmentalaccountingdisclosurespracticesofNigerian oil and gasfirmswith the attendant disparity of disclosed information as a result of non-availability of either local or international standards to guide disclosure.A sample of 8 out of 14 oil and gascompanies operating in Nigeria and listed in the NSE were selected for this research. Content analysis was used to obtain data from published annual reports from the selected firms.The data obtained were analyzed using one way analysis of variance to test the hypothesis. It was discovered that accounting standards do significantly influence environmental accounting disclosures; the non-existence of issued guideline leads to lack of uniformity in disclosure and variations obtained in testing the hypothesis. It is recommendedthat guideline should be issued on Green Accounting disclosures, in linewith United Nations guideline of 2005 and the UN resolution of 2015 on Sustainable DevelopmentGoals (SDGs). Equally,companiesshould bemandatedtodisclose sensitiveinformationabouttheiroperations, itwouldbeproperifthe Nigerianaccountingboard and othersettingbodiescomesupwithauniformstandardonhow companies should disclose their environmental accountinginformation.

Keywords: *Environmental Accounting, Disclosure, Global Reporting Initiative, Environmental Accounting Guide line.*

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I. Introduction

Generally, companiesare under social contract with the society and are expected to prepare annual reports which discloses both qualitative and quantitative information about their operations and performance to be presented to their stakeholders (owners or shareholders, government, employees and the public). Zhang and Wang (2023) posits that informal disclosure has gradually become an integral part of the governmental environmental governance system. The informational content requirements of these stakeholders are diverse and as such firms must not only disclose information about their financial performance but prepare other reports such as Environmental Accounting reports, Sustainability report, Human Resources Accounting report, Good Corporate Governance report, etc. (Usiomon and Iyoha 2024; Akande, Anikor,Akeremale, and Adesina 2023). In developed countries environmental information disclosure (EID) is mandatory. But in developing nations and Nigeria in particular corruption and bad governance are the obstacle to the introduction and adoption of EID, hence EID is still under the voluntary information component of financial report.

Over the years, mining activities by Shell Petroleum and other big conglomerates has depleted and degraded Niger Delta region environment without remediation(Kadafa 2023; Ogunode and Adegbie 2022). Equally, studies have shown that several violent agitations and with the emergence of Niger Delta Militants is as a result of corporate neglect (nonchalant attitude) of their social responsibilities to their host communities. Similarly, the hanging of Ken Sarowiwa on 10th November 1995 and eight others from Ogoni(in Niger Delta region) by late GeneralSaniAbacha military regime buttresses the point of nonchalant attitude by both the Government and oil companies towards environmental remediation. The promulgation of National Environmental Standard and Enforcement (NESRE) Act of 2007; Nigeria Environmental Law Research Institute (2011), were neutralized by non - existence of environmental reporting guidelines; hence environmental accounting disclosure is still voluntary in Nigeria. At best where reported, are grossly inadequate. The industries (firms) should focus and set aside a part of their funds for environmental protection and ecological balance. Thus business organizations are expected to account for the use of substances which may damage the Environment. Also, pertinent is the difficulty of evaluating environmental remediation for environmental degradation where environmental costs do exist.

Environmental Accounting Guidelines infers environmental costs as environmental conservation costs that include expenditures aimed to invest on assets for improving the quality of environment and costs allocated for prevention, mitigation and define methods for reducing environmental impacts, such as disaster recovery, environmental restoration, and other activities. Therefore, total environmental conservation cost is the sum of expenses incurred for environmental conservation purposes including the cost of depreciation of the assets. The guideline classifies environmental conservation costs into seven categories based on its business activities, i.e. business area costs, upstream/downstream costs, administration costs, research & development costs, social activity costs, environmental remediation and other costs.

According to Murshed(2021), environmental cost and profitability scholars have examined environmental costs and investments within corporate social responsibility framework and discovered that business activities in environmental areas is one part of the efforts to deal with social problems, aside from the corporate's main focus to maximize the wealth of shareholders. The environmental activities are recognized as one of important corporate strategies to improve the economic performance. Kokubu&Kurasaka (2002), opined that applying environmental accounting is beneficial since it supports decision making in specific purposes, such as investment decision, price setting, and performance evaluation. This study assumes that companies voluntarily disclose their effort to preserve environmental aspects voluntarily. Clarkson et al. (2008), suggest that these kind of companies are having proactive environmental strategy by which allowing them to disclose more environmental information to their stakeholders, including investors. This group of companies is superior that poor environmental performers cannot easily imitate their actions. Nakamura (2011), suggests the impact of environmental investment is on both short and long-term period. When a company deals with environmental problems, it can enhance the corporate image and then increase the stock price and profitability

According to Nuzula (2019), Japan initiated environmental accounting in 2000 through ministry of environment. The UN in 2005 approved the adoption of EID by all nations and in 2015 issued a resolution entitled "sustainability development goals" (SDGs) as a response to several environmental challenges, since then, environmental concerns have emerged as major concern for businesses. The significance of good corporate governance in determining how well a company carries out its responsibilities and makes the most of its assets is generally recognized in every area of the world (Akhter e tal 2022; Crifo 2019), along with tracking how well the company performs (Dony et al., 2019). The successful completion of the business's goals and an increase in its performance's effectiveness may be aided by corporate governance, which provides helpful information to the organization.EnvironmentalaccountingasobservedbyBeredugoandMefor(2013)citingYaklouandDorweile(2003) is an inclusive field of accounting; it provide reports for both internaluse, generating environmental information to help management take decisions on pricing, controlling overhead and capital budgeting and external use, disclosing environmental information is of interest to the public and to the financialcommunity.

In the developing countries, and Nigeria in particular, research previously conducted has shown that environmental accounting disclosure are voluntary as a result of non-availability of either local or international standards to guide disclosure; unlike the developed countries where it is mandatory for companies to include their environmental activities in their annual report (Akhter, 2023). Companies tend to disclose this information to conform to industry practices, pressures from environmental activist and advocates, relationship with parent company (Multi-National corporations), ownership structure of the company, size and level of profitability (Jing and Qamruzzaman 2023). The current position of environmental accounting reporting and disclosures might at best be described as confusing and full of ambiguity. Statutory, regulatory, quasi-regulatory agents and standard setters are yet to prioritize the reporting and disclosure of environmental accounting in Nigeria. While the accounting profession globally recognized the financial importance and significance of environmental costs and benefits. The majority argued that the accounting and reporting for these costs need no new theoretical issues and underpinnings but rather the guidanceandrequirementofInternational Accounting Standard 1 (IAS1; presentationoffinancialstatement)aresatisfactory.

This is however not surprising, given that research on many topical issues in general are still evolving within the African continent (Welbeck, OwusuBekoe and Kusi 2017). Moreover, compared to developed countries, most developing countries have over the years placed less emphasis on environmental issues. Against the backdrop that environmental performance of most countries within the African continent are poor compared with the developed countries.The need for an assessment of the environmental reporting practices of firms in Africa cannot be overemphasized. Unlike most existing studies that make use of cross-sectional data, the current study employs a longitudinal data to investigate the environmental practices of firms and the key predictors of firms' environmental disclosure practices. In achieving the study objectives, the Global Reporting Initiative Index (GRI) was used as a guide. The use of the GRI offers the opportunity to assess the disclosure practices of firms by international standards as there are no standards for content and structure of environmental reporting in Nigeria. While prior studies have benchmarked environmental disclosure against ISO 14000 (Sumiani et al. 2007), the GRI is a globally accepted reporting framework aimed at enhancing the quality, rigor, and utility of sustainability reporting (Global Reporting Initiative 2002). The content analysis results indicate that listed firms in Nigeria are disclosing some environmentalrelated information with a focus on product and service information compared to other environmental issues. The regression analysis also suggests firm size, industry type and age are key determinants of firms' environmental disclosure practices.

The term "Green Accounting" (environmental accounting) was first brought into common usage by economist and Professor, Peter Wood in the 1980's.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 environmental cost and therefore policymakers need a revised model that incorporatesgreen accounting.

Environmental Accounting in Japan

Studies in Japan examined the "first section" chemical companies listed in Japan Exchange Group that have reported and published environmental cost in their annual corporate social responsibility or corporate sustainability reports. The companies are implementing environmental accounting standards so-called as Environmental Accounting Guidelines 2005 issued by the Ministry of Environment, Japan. By applying environmental accounting, the companies were able to maintain a favorable relationship with the community and to conduct environmental conservation activities (Environmental Accounting Guidelines, 2005). The Guideline also discusses the concept, function, role and benefits of environmental accounting for the companies. According to the Guideline, there are two functions of environmental accounting, i.e. internal functions and external functions. Internally, it helps the company to identify the costs of environmental conservation and analyzing environmental activities.

The implementation of green accounting in Japan on the other hand was able to satisfywhether the monetary benefits are higher than the cost incurred, and whether the costs are able to improve the effectiveness and efficiency of environmental conservation activities through appropriate decision-making. Externally, the guideline functions as an instrument to convince wide stakeholders such as buyers, business partners, investors, and local communities that the company has improved their environmental management. After the release, Kokubu&Kurasaka in Nuzulu (2018), conducted a survey and found that the guideline has several benefits for the companies;1) improve corporate image and increase environmental awareness within the company, 2) reduce environmental load, 3) reduce environmental costs and 4) develop environmentally friendly products and improved decisions.

Environmental Disclosure in Bangladesh

Bangladesh Bank Green Policy Guidelines 2011 set the tone for green accounting policy implementation. BangladeshCentral Bank promised incentives for banks that practices various forms of sustainable environmental disclosures. Green banking guidelines 2011 and green reporting initiative (GRI) standards facilitated commercial banks to encourage environmental sensitivity and non-financial institutions to practice green and sustainable initiatives through policy of Green Finance and Green Product, Green Strategies for in-house management and other forms of environmental disclosures (KaiumMasud e tal 2017). A study by Reajmin in 2017 indicated that organisations that failed to adopt environmental disclosure guidelines suffered losses. Corporate Social Environmental Disclosure (CSED) in Bangladesh was in phases; first phase was for Banking Sector and other financial institutions in 2011, while the second phase was the turn of Petrobanga (oil, gas, steel, cement companies, etc) and others. According to Bose e tal (2018) and Nurunnabi (2016), before the enforcement of Bangladesh Bank Green Policy Guidelines 2011 the disclosure level was poor; 2.23% of the corporations published their environmental performance as documented by Ahmed (2012), Bose e tal (2018) and Nurunnabi (2016). But in 2015 almost 50% of the sampled firms keyed into the GRI initiative. The report added that the rate has been consistently maintained in the subsequent years.

Environmental Disclosure in MENA

The MENA ESG 2023 report by Bain and Company highlighted that investors in the Middle East are increasingly integrating environmental social and governance criteria(ESG) risks and opportunities into their decision-making and are committedto move to net-zero targets; UAE, Saudi Arabia and Egypt are the frontrunners for ESG initiatives. In 2023 COP28 Summit, UAE announced a $30 billion pledge to fund clean energy and other climate projects worldwide. In 2020, the UAE Security and Commodities Authority (SCA) mandated sustainability reporting for public joint stock companies listed in the Dubai Financial Market (DFM) and Abu Dhabi Security Exchange (ADX). Consequently, the Abu Dhabi Global Market (ADGM), also implemented its sustainable finance regulation framework in 2023 to set further standards for ESG disclosure in the country.

Egypt's Financial Regulatory Authority (FRA) released regulations and guidelines (Green Bond Guidelines in 2012 and Decrees 107 and 108 in 2021) requiring companies in the non-banking sector to submit ESG reports related to sustainability and financial impacts of climate. Unlike their western counterparts companies in the Middle East currently lack harmonized and standardized reporting framework to produce complete disclosure.

Theoretical Framework

The legitimacy theory sets the tone of this paper. The theory states that firms must have some accountability to society, and firms should act responsibly and maturely to meet investors and the general public's expectations (Gregory et al., 2016; Joshi et al., 2011). To gain enormous social acceptability and credibility, firms should meet society's diverse needs and thus act as legitimate corporate citizens (Deegan, 2019; Li et al., 2018). More particularly, the strategic legitimacy perspective has been applied to focus on positive environmental disclosures while carrying out the research. The reason is embedded in the fact that the strategic legitimacy aspect sheds light on the desire and motivation of the firms to earn social support where firms spend resources and try to exert control to attain social acknowledgment (Comyns, 2016; Yingjun et al., 2015). Such corporate citizens disclose positive environmental activities in their annual report as a modus operandi to communicate with vast social groups and are highly reluctant to disclose any adverse information; perhaps their reputation falls at stake. The study follows annual reports as a data source and some industry-specific adjustments as a data coding method.

Empirical Review

Researchers have divergent opinion on the effect of environmental disclosure on firm's performance (Jing and Qamruzzaman 2023). Klassen and McLaughlin (1996), Jones and Rubin (2001), and Stanwick and Stanwick (2000) explored whether there was a correlation between environmental disclosure and the financial success of 469 large firms listed on the Forbes 500 list in 1994. Study findings show that firms rated well in terms of their financial success had a higher number of instances of environmental policies and environmental pledges than businesses that were ranked badly in terms of their financial performance. In addition, companies with medium financial success had the highest frequencies of firm environmental policies and commitment. Meng et al. (2013) examined the relationship between economic performance and the environmental disclosure(ED) for 792 Chinese enterprises in 2006, 784 Chinese businesses in 2007, and 792 Chinese businesses in 2008. The empirical data demonstrated that the relationship between ED and firm performance is multiplicative and that ownership is a crucial institutional characteristic that impacts ED in China, from voluntarism to regulation.

In recent years, financial disclosure (FD) has emerged as one of the most important tools for communicating information to those in charge of making decisions. This viewpoint is gaining support among a growing number of companies in a variety of countries all around the world. The dramatic increase in the number of individuals using the internet and the volume of information that is made available to the general public has substantially impacted the operation of various economic and legal institutions throughout the globe (Aqel& Ahmad, 2014; Miao &Qamruzzaman, 2021; Yingjun et al., 2021). By disclosing symmetric information to shareholders and stakeholders, FD promotes transparency, which contributes to a reduction in the agency problem**.**

Lin and Qamruzzaman (2023), examined the impact of environmental disclosure and IT adoption on firm performance in China and their findings revealeda positive and statistically significant association between a firm's sustainability and target explanatory variables. Furthermore, the study extended the empirical valuation by implementing a systemGMM and documented a positive linkage between financial and environmental disclosure, IT adaptation, good governance, and the firm's performance sustainability.The study findings suggest that information symmetry, investor protection, and access to financial services foster and stabilize the firms' performance. A study in Bahrain byJuhmani (2014), showed that determination of corporate social and environmental disclosure on website indicated that 57.57% of the samples listed companies provided social and environmental information in their 2012 annual reports and their websites. Commercial banks and insurance companiesmadethemostdisclosureofsocialandenvironmentalaccounting,whiletheleastdisclosurewasmade by companies in the hotels and tourism industrialsector.

Akrouth and Othman (2013), conducted a study on the determination of corporate environmental disclosure in MENA emerging markets and comes up with the following findings that shows a negative and significant relationship between environmental disclosure and family ownership and it is consistent with prior work, that level of environmental disclosure is substantially affected by company size and performance. Eliyash, Karanagha and Kong (2013), studied environmental disclosure practices in national oil and gas corporations and international oil and gas corporations operating in the organization of Arab petroleum exporting countries and discovered that despite the slight increase in the environmental disclosures practices in national companies, the difference is still significant compared with international companies.

Bachmann,CarreiroandEspejo(2013),carriedoutaresearchinBrazilonenvironmentalinformationand their results revealed a high degree of importance and great weight of quantitative attributes. Such attributes by revealing what should be disclosed proprietarily, which are the essential environmentalattributes.Uwuigbe and Jimoh (2012), conducted a study on corporate environmental disclosure in the Nigeria manufacturingindustry.Astudyofselectedfirmsandtheyfoundthattheenvironmentaldisclosureindeveloping countryisstillatanembryonicstageandassuchmostofthefirmsengagein voluntarydisclosureinitiatives. In a related study Oba and Fodio (2012), carried out a research on comparative analysis of environmental disclosureinoilandgasandtheconstructionindustriesinNigeriaandtheirfindingsindicatedthattheoil-andgasindustryprovidesabetterdisclosureandthatbothindustriesfinancialstatementsonlydisclose little about environmental accounting.

II. Research Methodology

The study was conducted, using oil and gas firms listed on the Nigerian Stock Exchange which were fourteen in numbers. Eight out of the fourteen were studied as a result of delisting and inconsistency of financial reports of Amino International PLC, Capital Oil PLC, Navitus Energy PLC, Rak Unity Petroleum Company PLC and Beco Petroleum within the period of study.

Hypothesis of the study

Non-disclosure of environmental cost does not affect firm's financial performance. The hypothesis was tested using SPSS version 23; one way analysis of variance (ANOVA) technique at 0.05 significant level

Table 3: One way analysis of variance showing the effect of non-disclosure on firm performance

	Sum of Squares	F	Mean Square	F	Sig
Between Groups	331.000	3	110.333	18.167	.000
Within Group	832.000	137	6.073		
Total	1163.000	140			

Source; Company's Annual Report, 2021.

Result of the findings from table1using one way analysis of variance (ANOVA) shows that there was a significant effect of non-disclosure of environmental cost on firm financial performance [F $(_{3,\ 137})$ = 18.167; p<.001]. The result further shows that the F-calculated (18.167) is greater than the table value at the P value of<.001. This is an indication that the stated hypothesis of 'non-disclosure of environmental cost does not affect firm financial performance' and was therefore rejected. This means that non-disclosure of environmental cost significantly affects firm's financial performance.

The above result agrees with Jing and Qamruzzaman (2023) which revealed a positive and statistically significant association between firm's sustainability and target explanatory variables.Stanwick and Stanwick (2000) which explored whether there was a correlation between environmental disclosure and the financial success of 469 large firms listed on the Forbes 500 list in 1994; which the Study findings showed that firms rated well in terms of their financial success had a higher number of instances of environmental policies and environmental pledges than businesses that were ranked badly in terms of their financial performance.

III. Conclusions

As at now oil production in Nigeria fluctuates, from a projected output of about two million barrels per day to a daily production of less than eight hundred barrels in 2003, less than nine hundred barrels per day between 2016 and 2020 and up to the moment as we discourse, the output has not stabilized; the achievement of the projected output remains a mirage. This is as a result of militant activities in the Niger Delta Region from where oil and gas are sourced. The agitation is triggered as a result of neglect of environmental remediation by both the oil and gas firms and the Federal Government of Nigeria that culminated in the hanging of Sorowiwa and eight othersfrom Ogoni Land in 1995 - a major oil and gas producing area in the Niger Delta Region of Nigeria. The neglect of this region is evident in the destruction of aquatic life and farmlands as a result of prolongedmining of oil and gas without remediation as is the practice in other parts of the world that has adopted environmental disclosure guidelines (UN 2005) and UN sustainability development goals (SDGs) of 2015.

IV. Recommendations

Genuine effort should be made by oil and gas firms to honour their social responsibilities (social contact) with their host community/communities

The Federal Government must step up action by introducing and enforcing mandatory disclosures guideline in financial reports as were the case in China, Bangladesh, MENA etc.

Nigeria dose not exist in a vacuum, therefore, the UN disclosure guideline of 2005 and the resolution on sustainability development goals (SDCs) of 2015 should be adopted in order to ameliorate and mitigate the suffering of the inhabitants of the oil and gas producing regions.

Serious effort should be made to pay compensation to the communities that have lost their aquatic life and farmlands to oil and gas production.

A fund should be established to facilitate environmental cost remediation in order to relax tension in the oil and gas producing regions which will in-turn guarantee regular oil and gas production.

Before now, the much talked about cleaning of oil spillage has not been addressed in the Niger Delta Region; serious effort is required to carry out cleaning exercise as agreed with the host communities.

Green Accounting enforcement area should be introduced; penalties for polluters (i.e. polluting permit), tax breaks for polluting the environment and this money should be channeled to the host community/communities to ameliorate their pains/denial of aquatic life and farmlands.

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