

ENVIRONMENTAL ACCOUNTING AND TAX REVENUE OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT

The aim of this study was to investigate the relationship between environmental accounting and Tax Revenue growth in Nigeria within the period of 2012-2018. Specifically, it investigated whether or not environmental accounting has a relationship with education tax revenue growth. Data were gathered from Federal Inland revenue service (FIRS) Planning, reporting and statistic department report for various years, and annual reports of the quoted oil companies available from the Nigerian stock exchange. Regression analysis was employed for the analysis of the data. Findings indicated that environmental accounting embarked upon by the firms has significant relationship with Tax Revenue growth in Nigeria in terms of the tertiary education tax revenue. This implies that mandatory environmental accounting practices by oil companies in Nigeria should be adopted and enforced by the Nigerian stock exchange and other regulatory bodies in Nigeria. The study recommended amongst others that there should be a robust regulation that should make environmental accounting and reporting mandatory for all listed firms in Nigeria; and sanction and other punitive measures should be adopted by the government and regulatory bodies to ensure strict compliance.

KEYWORDS: *Education tax, Environmental Accounting; Oil companies, Nigeria, Tax Revenue,*

INTRODUCTION

It is argued that a sizable portion of Africa's increasing tax revenue comes from natural resource taxes. This includes royalties, production sharing, and corporate income tax on oil and mining companies (Pfister, 2009). As observed by Ordu & Anaele (2015) amongst others, in Nigeria, the greatest amount of revenue comes from the oil revenue. This is because Nigeria has abundance of oil resources including natural gas and its major export is the same crude oil. Furthermore, Nigeria is also endowed with other natural resources such as tin, iron ore, coal, limestone, lead, zinc and arable land (Economy Watch, 2011), which can be explored and operators in such industries liable to taxation as well. As such revenue emanating from these areas via taxation is critical to sustainable growth and development of the nation.

Sadly a situation of "resource curse" rather than blessing exists in the nation especially in the oil rich region. Revenue accruing from taxation has not had commensurate growth or increase as the time progresses (Okafor, 2012). Though it has been argued, that this Tax Revenue decline rather than increase, could be as a result of various revenue leakage channels including corruption and collusion amongst tax payers and tax collectors (Tax Justice Network – TJN, 2012). There could be more to it. Perhaps more accountability and reporting is needed on the side of the tax payers so as to enable tax collectors have an adequate ascertainment for tax liability especially on the key players such as multinational corporations operating in the oil rich regions.

As critical as it is to generate revenue from taxation of oil and gas activities from multinationals in Nigeria, Tax revenue mobilization as a source of funding for development operations in Developing nations in general, and Nigeria in particular, has been a challenge. This is primarily due to the different forms of resistance that big multinational corporations apply, such as evasion, avoidance, and unscrupulous tactics (Ordu & Anaele, 2015). "These activities are considered as sabotaging the economy and are readily presented as reasons for the underdevelopment of the country. On one hand, government collects taxes in order to provide an efficient and steadily expanding non-revenue yielding services, such as infrastructure-education, health, communications system etc, employment opportunities and essential public services (such as the maintenance of laws and order) irrespective of the prevailing ideology or the political system of a particular nation" (Worlu & Nkoro, 2012). On the other hand, "the very act of taxation has profoundly beneficial effects in fostering better and more accountable government" (Tax Justice Network (TJN), 2012), hence the need to have and maintain a steady Tax Revenue growth.

The receipts from tax structures are referred to as tax revenue. Oil revenue (which includes royalties, Petroleum Profit Tax (PPT), and gas tax, among other things) and Non-Oil revenue (which includes trade, loans, direct and indirect taxes paid by other sectors of the economy, Aids, agriculture, and so on) are the two main categories of revenue accruing to an economy like Nigeria (Ordu & Anaele 2015). Thus, oil and gas sector is the key sector that this Tax Revenue comes from and it is dominated by quoted oil companies who are the key players in the sector. The critical issue has been how to get the key players in the oil and gas industry to be more accountable to their actions so as to ensure that equity and justice is done when compared to their activities on host communities. Environmental justice campaigners believed that justice could be perceived to be done when they are taxed adequately (Sobrasuaipiri, 2014; Odigie, 2014). Perhaps, when they are levied or fined in relation to their activities in the operating area, it could foster Tax Revenue growth for the host countries.

Sustainability reporting is said to increase tax revenue for host countries (Global Reporting Initiative (GRI) Report, 2016), hence efforts should be made to encourage organizations to do so on a mandatory basis. This is in light of the fact that "during the past 40 years, pressures from a variety of sources have come to bear on the business community on their responsibility towards all of its stakeholders, environment and the society in which it operates (Sihotang & Effendi, 2010; Dilling, 2010), hence, the need for an interdisciplinary reporting that reflects a simultaneous integration of economic, environmental and social factors into corporate behaviour with the aim of sustaining resources for future generation" (Quick, 2008). By embracing sustainability accounting and reporting this can be achieved.

Environmental Accounting (EA) is described as an oil and gas company's capacity to account for and accurately report on its operational operations in relation to environmental concerns such as energy, water, greenhouse gases, emissions, hazardous and non-hazardous waste, recycling, and packaging. Uncontrolled oil and gas exploration activities have the potential to create a wide range of preventable environmental harm, in addition to the substantial health hazards that are commonly linked with oil and gas exploration activities due to pollution and other comparable components. Local and indigenous communities' culture, as well as their economic and social structures, are frequently impacted. To add to the challenges, environmental regulations in growing countries like Nigeria and others are seen to be ineffectual because they are either significantly weak or incorrectly administered. According

to a 2007 report by KPMG, this has prompted academics, practicing attorneys, and human and environmental rights advocates to call on global oil firms to improve their performance in nations with weak environmental legislation on their own initiative. You must now complete it in the accounting reports. 2007 (KPMG). This will stimulate environmental accounting by allowing for sustainability reporting. The studies of Osho (2014) that focused on oil firms revealed that there is a significant relationship exists between the effectiveness of accounting procedure and performance, accuracy and reliability of accounting records in the industry while at the same time the effectiveness of the accounting system does not reduce the incidence of tax avoidance by the firms and this is to the advantage in terms of their performance, thus the need for adequate accounting disclosures including environmental, social and economic impact disclosures. Looking at the issue of tax evasion, and thus reduction in tax revenue growth, evidences abound that Multinational Corporations (MNCs) also evade tax using tax havens (Ordu & Anaele, 2015). Tax haven practice refers to situations in which multinational corporations operate in one jurisdiction but send and use their assets in another country with no or low taxes, ineffective information exchange, lack of transparency, and no necessity of substantial activity (OECD, 1998). This is a form of tax avoidance, and according to a report by Gravelle (2012), a senior economic specialist with the US Congress, as cited in Ordu & Anaele (2015), the federal government loses revenue from both individual and corporate income taxes as a result of profits and income being transferred to low-tax countries. While estimating revenue losses due to tax avoidance and evasion is challenging, some have suggested that the yearly cost of offshore taxation losses could be approximately \$100 billion (Ordu & Anaele, 2015).

Given this precarious situation, it becomes pertinent to get MNCs to engage in sustainability reporting with adequate environmental accounting which will bring every aspect of their activity and operations to bear for all to see so as to enable them be sufficiently liable for their operational activities. Furthermore, there is a gap in studies especially in developing nations such as Nigeria on sustainability and environmental reporting as a means of increasing revenue generation for the nation. Most studies focused on provision of guidelines and on the need for multinationals to engage on sustainability reporting. And those studies are mostly in developed nations such as Europe, America and Australia (Dilling, 2010; Quick, 2008; ACCA; 2005; SIRAN, 2008; KPMG, 2008; API, 2005). However none of the studies has looked at whether or not environmental accounting and reporting by multinationals could increase their tax liability. Few related studies within the Nigerian context merely highlighted and concurred that MNCs operating in Nigeria, especially in the oil and gas sector and in operating in the Niger Delta Region have not been truthful and transparent on their sustainability reporting (Asaolu, Agboola, Ayoola & Salawu, 2011; Ironkwe & Ordu, 2016; Omes, Ngoke & Ordu, 2020) hence the need for government to get them to be more accountable with respect to sustainability reporting, environmental reporting, thus mandatory reporting framework should be adhered to. However, these studies failed to look at revenue generation implication of this environmental accounting and reporting. Therefore, this study tends to fill this gap. It will examine whether or not if MNCs engage in truthful and transparent environmental accounting it will lead to increase of Tax Revenue generation to Nigeria that could be used to finance developmental activities.

Aim and Objectives of the Study

The main aim of the study is to investigate whether environmental accounting by the quoted oil companies could enhance tax revenue growth in Nigeria given their activities in the Niger Delta Region of Nigeria. Other specific objective is as follows:

- To ascertain the extent to which environmental accounting by Oil Multinational corporations in Niger Delta affects Tertiary education Tax revenue in Nigeria.

Research Questions

- To what extent does environmental accounting by Oil Multinational corporations in Niger Delta affects Tertiary education Tax revenue in Nigeria?

Hypotheses

HO₁: There is no significant relationship between environmental accounting by Multinational corporations and Tertiary education tax revenue in Nigeria.

LITERATURE REVIEW

Conceptual Review

Environmental Accounting: in this study is defined as the ability of MNCs to account for and truthfully report on their operational activities towards damages on environmental issues such as Energy, Water, Greenhouse gases, Emissions, Hazardous and non-hazardous waste as well as Recycling and Packaging. And quantifying in monetary terms the compensations or taxes paid for these activities. According to the lawdictionary.com, Environmental Reporting (ER) is "an objective evidence of environmental conditions as a public disclosure. Its focus is on a firm's environmental performance information, and it is very much like public statements of financial Profitability information". Furthermore, it involves both non-financial and financial reporting. Non-financial Reporting on its own as defined by API (2005) is "a form of reporting on the range of environmental, health and safety, social, and economic issues and impacts that relate to oil and gas company operations and products, and is synonymous with Sustainability Reporting". In addition, companies may choose to use a variety of other terms to refer to this concept, such as corporate responsibility, corporate citizenship, or contributions to sustainable development. "The term non-financial is used by some companies to distinguish these reports from more traditional company financial reports, even though both reports include economic indicators" (API, 2005). In the same vein, there are terminologies that are used interchangeably for reporting in oil and gas industry for global reporting and congruency in accounting. These are according to Campbell & Slack, (2006) as follows:

- (i) "Sustainability or sustainable development reporting,
- (ii) Non-financial indicator reporting,
- (iii) Corporate responsibility,
- (iv) Corporate social responsibility or social responsibility reporting, and
- (v) Citizenship reporting"
- (vi) All of these can be used interchangeably as generic terms to describe the voluntary disclosure of benefits in these areas. Therefore, depending on the term adopted by a company, environmental and sustainability reports are necessary, since at least this will give a general idea of the obligations of companies with their host communities and the environment. This in turn will improve your acceptability index.

Overview of taxation prevalent in the Oil and Gas sector in Nigeria.

As earlier noted, a significant share of the Tax Revenue increase in Africa generally comes from natural resource taxes. This includes income from production sharing, royalties, and corporate income tax on oil and mining companies. In Nigeria however, its major export is

mainly crude oil as well as Natural gas, its revenue comes from this oil and gas sector, and it comes in the forms of various levies and taxes – majorly coming from multinationals operating in this oil and gas sector. These taxes are as follows as found in the FIRS (2016) updated guidelines as well as in Ernst and Young (2015) report: petroleum Profit tax, withholding tax, tertiary education tax, petroleum royalties and Nigerian Oil and gas industry content (NOGIC) tax. Others are corporation tax, capital gains tax, resource rent tax as well as personal income tax. A brief discussion on what these taxes entails is done here as well.

The principal statutes with which the federal government manages the oil and gas resources include the Petroleum Act, Petroleum Profits Tax Act (PPTA), Oil Pipelines Act, Nigeria Liquefied Natural Gas (LNG) Act and the Environmental Impact Assessment Act (Oduntan, 2015). In addition to the PPTA, other tax regulations that also apply to companies in the Nigerian oil and gas industry include the Companies Income Tax Act (CITA), the Capital Gains Law and the Value Added Tax Law. However, the tax laws governing the main taxes on oil and gas companies are the PPTA. The PPTA regulates the taxation of oil operations, while the CITA is the general regulation of corporate income tax in Nigeria.

Tertiary Education tax:

Tertiary Education Tax (formally Education Tax) is a tax imposed on the assessable profits of all companies registered in Nigeria (including companies subject to tax under Petroleum Profits Tax Act) for the enhancement of tertiary education in Nigeria. It is established by the Tertiary Education Trust Fund (Establishment, Etc.) Act No 16, of 2011. This tax is assessed alongside the PPT or income tax liability of a company. Education tax is assessed at 2% of the assessable profits of a company (though there are already plans to increase it to 4%). For a company subject to tax under the PPTA, the education tax paid is an allowable deduction under Section 10 of the PPTA in arriving at the adjusted profits of the company for tax purposes. The Federal Inland Revenue Service is charged with the responsibility for the assessment and collection of this tax. The primary objective of the Education Tax is to achieve restoration, rehabilitation, consolidation and development of tertiary education in Nigeria. Hence, any avoidance acts on this tax affects the ability to develop human capital in Nigeria via the educational institutions.

Due Dates for Filing Returns: Filing of returns for Tertiary Education tax is done along with the Company or Petroleum Income Tax as the case may be. For companies engaged in petroleum operations, due date for filing is; a) Filing of a return of estimated tax is within 2 months after the commencement of each accounting period, i.e. on or before February; b) Filing of a final return is within 5 months after the end of the accounting period, that is, on or before May.

For companies other than those engaged in petroleum operations due date for filing is; a) In the case of a newly registered company, either within eighteen (18) months from the date of incorporation or six (6) months from the end of the company's first accounting year whichever is earlier. b) In the case of an existing company, within six (6) months from the end of company's accounting year. The Penalty for failure to pay the tax due within the specified time is the unpaid tax plus a sum which is equal to 5 percent of the tax.

Relationship between Environmental accounting and Tax Revenue growth

According to a report by Global Reporting Initiatives (GRI) (2016), non compliance to sustainability reporting is leading to increased tax evasion which is undermining revenue growth to nations. The report acknowledges that corporate tax avoidance is a big challenge to nation's revenue; therefore tax transparency through sustainability disclosure should be

advocated. Sadly as the report noted, "corporate tax avoidance in Europe is estimated to cost EU countries EUR 50-70 billion a year in lost tax revenues" (GRI, 2016). This is because tax payments are an important component of corporate governance, and the Panama Papers scandal has brought the issues of governance and credibility back to the forefront of the corporate dialogue. As the report further noted and quoted Angel Gurría, Secretary-General, OECD comments during the Opening Session of the OECD Forum on Responsible Business Conduct in June 2016 as saying "the Panama Papers are a reminder that much remains to be done to address the policies that allow millions to be hidden offshore from tax authorities. The OECD forum was held on the occasion of the 40th anniversary of the OECD guidelines for multinational enterprises. Participants from governments, businesses, trade unions and civil society met to discuss how to achieve real impacts through best business practices, explore emerging problems in supply chains and promote a better contribution from the private sector to achieving sustainable development goals. According to a panel discussion conducted on taxation and responsible business conduct, expectations of society from corporations in terms of paying taxes in the countries in which they make their profits is that of being transparent on issues related to corporate governance, including tax payments, helps companies be more trustworthy and accountable in the eyes of their stakeholders, whether they are investors, governments, civil society, employees", etc. This expected shows the link between sustainability reporting and Tax Revenue growth in nations multinationals operate.

To buttress this, the chief executives of GRI, Teresa Fogelberg in her own remarks, acknowledged that "as the global standard in sustainability reporting and disclosure, GRI believes transparency in tax payments reflect a company's overall contribution and responsibility to the larger economic and social communities which depend on them, and has sought to promote corporate disclosure on tax payment by country since 2006. GRI has created disclosures on both issues of corporate governance and tax transparency in its Sustainability Reporting Standards", therefore, where companies adhere to these standards they would demonstrate the transparency, trust and meet the expectation of stakeholders. Payments to governments consist of all organization taxes (such as corporate, income, property) and related penalties paid at the international, national, and local levels. GRI Standards support organizations around the world to bring this information to light, and can be a useful tool to promote the accurate disclosure of corporate tax payments as a critical aspect of corporate governance and sustainability. Furthermore, as noted by regulators, most MNCs are not doing enough in terms of their sustainability report which can show tax transparency and thus increase revenue accruable to the government.

In another report "Tax and transparency: a mixed disclosure rate globally" GRI analyzing almost 3,000 GRI G4 reports from the GRI Sustainability Disclosure Database, which includes reports from 2013 until 1 June 2016, found out that 79% of the reports "claim" they provide all the information for the indicator (G4-EC1) which includes corporate payments to governments. The figures clearly show a disparity across the world in terms of corporate transparency on tax payments, and demonstrate the need for a greater push towards more transparency by business in this area. Similarly, as Asaolu et al (2011) observed MNCs operating in Nigeria falls within this category. There are several false claims in their sustainability reporting, hence corporate payments to the government are undermined. Where there is adequate disclosure inline with the GRI standards amongst others, Tax Revenue growth could increase or better still enhanced. In conclusion, the report recommended that there is need to curb the problems of tax avoidance vial non compliance to sustainability disclosures, noting that to curb it increased transparency on corporate tax

payments is expected, from MNCs. In addition companies should be prepared to face increasing pressure and regulations regarding transparency on corporate tax payments. Many individuals and organizations around the world are already working to promote the accurate disclosure of corporate tax payments. Examples of such actions taken include:

- ❖ "On 21 June 2016, the European Council agreed on a draft directive addressing tax avoidance practices commonly used by large companies. The directive is part of a January 2016 package of Commission proposals to strengthen rules against corporate tax avoidance. The package builds on 2015 OECD recommendations to address tax base erosion and profit shifting (BEPS). The Commission proposals require large multinational companies to disclose publicly the income tax they pay within the European Union, country by country. In addition, they would be asked to disclose how much tax they pay on the business they conduct outside the EU"

- ❖ Disclosure of the payments made to governments on a country-by-country basis and, where appropriate on project-by-project basis. This practice is already in practice in European union nations.

- ❖ "The G20 also have an important role to play to put pressure on the jurisdictions to commit and implement internationally agreed standards on transparency and to ensure that the information provided by companies is comprehensive, comparable and accessible"

- ❖ Strengthening tax transparency regulating systems. As nations plan to achieve the Strategic Developmental Goals (SDGs), there is an opportunity for countries to strengthen their tax transparency regulatory systems so that they can count on domestic tax revenues as a source of financing for development. The United Nations SDG 17.1 specifically states: "Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection".

- ❖ Adhering to the GRI sustainability Reporting Standards which covers Guidelines for Multinational Enterprises and recognizes it as a leading organization regarding taxation. GRI Sustainability Reporting Standards allow companies to report on the implementation of Chapter XI of the OECD MNE Guidelines which relates to taxation (GRI, 2016).

Theoretical framework

Stakeholder Theory

This theory was embedded in the management discipline as far back as 1970 and was gradually developed by ED Freeman (1984) by adding corporate accountability to a broad range of stakeholders. Depoers, Jeanjean, & Jérôme, (2016) and Liao, Luo, & Tang (2015) stated that stakeholder theory is considered as an explainable theory for corporate environmental accounting. This theory involves the recognition and identification of the association existing between the entity's behaviours and its effect on its stakeholders. With this theory, the corporations does it activities and in recognition of the needs of its various stakeholders, and thus disclosures towards meeting the needs of stakeholders are essential to the effective operations of the company. Trireksani & Djajadikerta, (2016) noted that stakeholder theory is important in the context of this current study because disclosure of environmental activities to stakeholders would enable government as its stakeholders appropriately tax the entity and thus ensure that other needs of other stakeholders are met at the same time. This is especially important as the stakeholders such as the host communities are aware of the operations of the oil companies and thus oil taxes comes from the Multinationals operating in the Oil and Gas rich zone of the nation including the Niger Delta area. Although stakeholders theory have been criticised for its shortcomings. Some of which are that stakeholder theory diverts attention from creating business success to

concentrating on who share its fruits. There is also the question of what right have stakeholders to make the claims they do (Andre & Wilson, 2006; Mainardes, Alves & Raposo, 2011). There is the issue of how to determine the stakes, confusion of interest as well as how to measure the stakes amongst others. However where these issues are dealt with, the interest of all stakeholders becomes paramount. Where there is any revenue leakage from these areas, it could adversely affect government revenue and consequently economic developmental activities.

Review of empirical literature

Omes, Ngoke and Ordu (2020), investigated the relationship between non-oil revenue and economic development of Nigeria. The study used secondary data extracted from the Central Bank of Nigeria statistical bulletin for 30 years, spanning 1989-2018. Descriptive and historical research design was adopted for the study, while regression was used for data analysis and interpretation. The result of the study indicated a positive relationship between Non-oil Revenue and Gross Domestic Product. the study recommended that there should be a gradual shift by Nigerians from too much emphasis on Oil revenue to that of the Non-Oil sources, such as Agricultural export, Value Added Tax, Personal Income Tax, Companies Income Tax, hospitality, entertainment, customs and excise duties, etc in order to facilitate rapid economic transformation of the economy

Alhashi, Nobanee & Khare (2018), examined "the Impact of Sustainability Practices on Corporate Financial Performance": Literary trends and future research potential. The study says the relationship between sustainable business practices and financial results has received increasing attention in research, however consensus remains elusive. This document identifies developmental trends and problems that hinder conclusive consensus on this relationship. We use content analysis to review the literature and determine the current state of research. A total of 132 top-level magazine articles are selected. We found that "78% of publications report a positive relationship between corporate sustainability and financial performance". Variations in research methodology and measurement of variables lead to divergent opinions on the relationship. Furthermore, literature is slowly replacing total sustainability with a closer corporate social responsibility (CSR), which is dominated by the social dimension of sustainability, while covering scarce or absent environmental or economic dimensions. Studies from developing countries remain scarce. More research is needed to facilitate convergence in understanding the relationship between sustainable business practices and financial results. Keywords: corporate sustainability; financial performance

Nwaiwu & Oluka (2018) examined "environmental cost disclosure and financial performance of oil and gas in Nigeria". This study empirically examines the effect of environmental cost disclosure and financial performance measures of quoted oil and gas companies in Nigeria. Time series data were collected from annual financial reporting and economic review of Central Bank of Nigeria; Pearson product moment coefficient of correlation and multiple linear regression analysis with the aid of special package for social sciences (SPSS) version 22. The econometric results reviewed "adequate disclosure on environmental cost, compliance to corporate environmental regulations have positive significant effect on financial performance measures". Thus the study recommended "regulatory enforcement for adequate environmental cost disclosure and proper reporting. Management of oil and gas companies in Nigeria should develop a well articulated environmental costing system in order to guarantee a conflict free corporate atmosphere for improved corporate performance".

Utile, Tarbo & Ikya (2017), examined "corporate environmental reporting and the financial performance of listed manufacturing firms in Nigeria". The study investigates the effect of environmental reporting on the financial performance of listed manufacturing companies in Nigeria. The study aims at determining the effect of erosion control reporting (ECI), waste management reporting (WMI) and air pollution reporting (API) on the financial performance of listed manufacturing firms in Nigeria. The study adopted an ex-post facto research design using the random effect regression analysis as the major technique for data analyses. The sample of the study was drawn from ten manufacturing firms listed on the Nigerian Stock Exchange. It was found that "both erosion control reporting and air pollution reporting has significant effect (0.002) and (0.026) respectively with firm financial performance while waste management reporting has negative but significant effect (0.000) on firm financial performance of companies under investigation". The major conclusion reached by this study is that "environmental reporting has significant effect on firm financial performance. The study recommends that the Environmental Regulation Agency should collaborate with the Financial Regulation Council of Nigeria to make environmental reporting a necessity in annual reports of listed firms in Nigeria".

Uzoma & Mgbemena (2015) "evaluated some oil companies in the Niger delta region of Nigeria: looking at the environmental impact their activities have on the area. The study used data from past and present studies, government and non-government bodies and existing literature such as those of Twumasi & Merem, 2006; Uyigue & Agbo, 2007; Uyigue & Ogbeibu, 2007). The secondary data used were obtained from the Nigerian National Petroleum Co-operation, World Bank Report, National Bureau of Statistics, United Nations Environmental Protection Programme, Amnesty International, International Monetary Fund, Published and unpublished materials, Books, Newspapers, Conferences and Seminar papers, Journals and the Internet. The data obtained was analyzed using descriptive method of analysis to obtain logical deductions and sequential presentation of facts from the data obtained to give a clear picture of the problem.

The study revealed that that activities associated with petroleum exploration, development and production operations have local detrimental and significant impacts on the atmosphere, soils and sediments, surface and groundwater, marine environment and terrestrial ecosystems in the Niger delta. In addition, the Niger Delta consists of diverse ecosystems of mangrove swamps, fresh water swamps, rainforest and is the largest wetland in Africa and among the ten most important wetland and marine ecosystems in the world, but due to oil pollution caused by exploration, the area is now characterized by contaminated streams and rivers, forest destruction and biodiversity loss, in general the area is ecological wasteland. Discharges of petroleum hydrocarbon and petroleum – derived waste streams have caused environmental pollution, adverse human health effects, socioeconomic problems and degradation of host communities in the oil producing states in the Niger Delta region.

Furthermore, the study acknowledged that, the oil industry located within the region has contributed immensely to the growth and development of the country, which is a fact that cannot be disputed but unsustainable oil exploration activities has rendered the Niger Delta region one of the five most severely petroleum damaged ecosystems in the world (Uzoma & Mgbemena, 2015).

With these damages, it could be argued that regardless of the amount of tax paid currently by this MNCs, more cost needs to be awarded. Perhaps this could be a way of compensating for their damaging activities on the environment as well as be able to raise the needed revenue that could be used for developmental purposes. The challenge has always been how to get them to be accountable in terms of assessing their taxable income and activities.

Perhaps more and mandatory rather than voluntary sustainability accounting and reporting could achieve that. Studies such as this would be able to provide useful information on this sustainability reporting and tax revenue growth relationship and hence the need to make sustainability accounting and reporting mandatory and enforceable.

METHODOLOGY

The research design of this study is explanatory. The focus of an explanatory research design is how to effectively explain the characteristics of a population or a social phenomenon (Saunders et al., 2007). This is usually effective where a quantitative framework is adopted for the study, where it is possible to establish the relationship or influence on one variable on the other.

The population of the study consists of quoted oil and gas companies operating in Nigeria from the years 2009 - 2018. Due to non availability of composite data especially for indigenous companies, purposive sampling method was adopted. Therefore, 7 year period (2012- 2018) for which composite sustainability accounting data were available were chosen for the study, because it will give relatively acceptable time period of study for the research. The data for tax revenues for same period (2012- 2018) were also utilized. Secondary sources of data were used as the main data collection sources. The relevant data for this study were collected from the annual reports and accounts of the companies available on their websites and from Nigerian Stock Exchange (various years) as well as the federal Inland Revenue service (FIRS) reports of various years. The data collected was from the period 2012 – 2018. The Annual reports includes: Annual financial statements; annual sustainability reports as well as Annual Reports of global tax payment to nations by the quoted oil firms. Other are the annual returns submitted at Nigerian Stock Exchange for the years under study. The data collected were analyzed using Simple Linear Regression Analysis and correlations correlation coefficient guided by a regression Model to analyze the relationship of the variables identified as well as ascertain whether or not they have influence over one another. This helped in testing the hypothesis:

RESULTS AND ANALYSIS

Testing of Hypotheses

HO₁: There is no significant relationship between environmental accounting by Multinational corporations and Tertiary education tax revenue in Nigeria.

Table 4.1: Results summary

“Model	R	R ²	Adjusted R ²	Standard Error of Estimate	R ² change	F-Value	DF	Sign-Change	Durbin Watson”
“There is no significant relationship between environmental accounting by Multinational corporations and Tertiary education tax revenue in Nigeria”.	0.994	0.988	0.976	27814.67013	0.988	81.303	1	0.070	2.816

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Source: SPSS output version 22 on Data collected, 2019

Decision Rule: Accept null if calculated F value is less than tabulated value

From the table above, the null hypothesis was rejected based on the decision rule: calculated f value (**81.303**) greater than the tabulated values (**0.994**) respectively. Alternate hypothesis is accepted there is a significant relationship between environmental accounting and education tax revenue in Nigeria

Discussion of Findings

Based on the results obtained, it is concluded that environmental accounting by the quoted oil multinational oil companies operating in Nigeria has a significant and positive relationship with Tax Revenue growth in Nigeria. This therefore implies that the level of Tax Revenue growth will increase where there is environmental accounting and by extension sustainability reporting by the MNCs operating in the region, and this will enhance developmental activities witnessed in the area and by extension in Nigeria. This is in line with the study of Uzoma & Mgbemena (2015) whose study revealed that MNCs activities associated with petroleum exploration, development and production operations have local detrimental and significant impacts on the atmosphere, soils and sediments, surface and groundwater, marine environment and terrestrial ecosystems in the Niger delta, as such ways of getting them to be more accountable should be devised by the government.

For environmental accounting and tertiary education tax, this result shows that the strength of the relationship is very high (**$r = 0.994$ (99.4%)**). In addition, for R squared of **0.988 (99%)** shows that **99%** of the total variation of Tax Revenue growth in terms of tertiary education tax revenue was due to the effect of environmental accounting by the companies, whilst **0.976** on adjusted bases, the tertiary education tax revenue was as high as **98%** relative to the environmental accounting embarked upon by the companies. The Durbin Watson (DW) however is **2.816** and it is greater than 2, indicating that there is no evidence of positive serial correlation between environmental accounting and tertiary education tax revenue in Nigeria.

CONCLUSION AND RECOMMENDATIONS

Based on the results and findings of the study, the study concludes that there is a significant and positive relationship between environmental accounting by the listed oil companies operating in Niger Delta region and Tax Revenue growth in Nigeria. In other words adopting of environmental accounting and sustainability reporting by the companies enhances Tax Revenue growth in Nigeria. This is true especially when we look at the education tax revenue of the Tax Revenue of Nigeria. This implies that mandatory environmental accounting via sustainability reporting by listed oil companies in Nigeria must be enforced by the Nigerian stock exchange and other regulatory bodies in Nigeria. This result is in line with earlier works of Ernest & Young (2015) whose study reported that "many firms that produce sustainability reports have found that doing well and doing good are not mutually exclusive propositions. Further, by releasing their reports, they engage with stakeholders outside the company, integrate with local and global communities, and participate in inclusive discourse that can lead to investments that benefit the company and its operating environment. Based on the findings and conclusion the study recommends the followings

1. There should be a robust regulation that should make environmental accounting and reporting mandatory for all listed firms in Nigeria.

2. Sanction and other punitive measures should be adopted by the government and regulatory bodies in order to get the MNCs especially those operating in the Niger delta region to be compliant to sustainability reporting as way of accounting for their action and activities in the area.

REFERENCES

- Ambler, T., & Wilson, A.(2006). The problems of stakeholder theory. *Business Ethics and European Review* 4(1),30-35.
- Anifowose, B. (2008). Assessing the impact of Oil and Gas Transport on Nigeria's Environment. *U21 Postgraduate Research Conference Proceedings 1*, University of Birmingham UK.
- Asaolu T. O., Agboola A. A., Ayoola T. J. & Salawu M. K (2011) Sustainability Reporting in the Nigerian Oil and Gas Sector. Proceedings of the Environmental Management Conference, Federal University of Agriculture, Abeokuta, Nigeria, available on line at <http://www.unaab.edu.ng>. Assessed on 7/05/2017.
- Association of Chartered Certified Accountants (ACCA)(2002). Industry as a partner for sustainable development.onlineathttp://www2.accaglobal.com/pubs/general/activities/library/sustainability/sus_archive/tech-unep-001.pdf, 15/05/2017.
- Depoers, F., Jeanjean, T., & Jérôme, T. (2016). Voluntary disclosure of greenhouse gas emissions: Contrasting the carbon disclosure project and corporate reports. *Journal of Business Ethics*, 134(3), 445–461. doi:10.1007/s10551-014-2432-0.
- Ernest & Young (2015). Global oil and gas tax guide 2015. Retrieved at www.ey.com/oilandgas.
- Ernst & Young (2011). Climate Change and Sustainability; How sustainability has expanded the CFO's role, (PDF), *retrieved online at* <http://www.ey.com/Publication>.
- Ernst & Young LLP (2016). Value of Sustainability Reporting: A study by EY and Boston College Center for Corporate Citizenship. Retrieved online 22/5/2017 at [http://www.ey.com/Publication/vwLUAssets/EY_-_Value_of_sustainability_reporting/\\$FILE/EY-Value-of-Sustainability-Reporting.pdf](http://www.ey.com/Publication/vwLUAssets/EY_-_Value_of_sustainability_reporting/$FILE/EY-Value-of-Sustainability-Reporting.pdf).
- Freeman R. (1984). *A Strategic management: A Stakeholder Approach*, Boston: Pitman Publishing Inc.
- Freeman, R. E. (1998). A stakeholder theory of the modern corporation, in Pincus, L. B. (Ed.), *Perspectives in business ethics*, McGraw-Hill, Singapore, pp. 171-181.
- Garcia – Lacalle, J. (2006). Raiders of the Lost Theory: A Wider Perspective of Accounting through the Social Contract, *29th European Accounting Association Annual Congress*, Dublin, 22- 24 March.
- Ghosh, A. (2013). Corporate sustainability and corporate financial performance the Indian context. Indian Institute of Management Calcutta: working paper series, 721, 1-37.

- Global Reporting Initiative (GRI) Report, (2011). The Santander Annual Report presents the bank's economic, social and environmental performance in Brazil for 2010, (PDF) retrieved online at <https://www.globalreporting.org/Pages/FR-Santander-2011.aspx>, 17/05/2017.
- GRI Report, (2016, June 6). Tax transparency, regulation and the need for greater disclosure <https://www.globalreporting.org/information/news-and-press-center/Pages/Tax-transparency,-regulation-and-the-need-for-greater-disclosure.aspx>) assessed on 22/5/2017.
- Ironkwe, U.I & Ordu, P.A (2015). An Analysis of International Financial Reporting Standards (IFRS) Issues Concerning Some Elements of Accounting in Oil and Gas Industries in Nigeria. *International Journal of Management Science and Business Administration* (1)9,14-32
- Ironkwe, U.I & Ordu, P.A (2016). Environmental Reporting in the Oil and Gas Industry in Nigeria. *International Journal of Research in Business Studies and Management* 3(11),1-21.
- KPMG (2008). KPMG International survey of corporate responsibility reporting retrieved from www.kpmg.com/global/Ensure_and_Insights/articles/publications/pages/sustainability-reporting-2008.aspx on 17th February, 2011.
- KPMG (2014, June). Nigeria Oil and Gas Industry Brief. Online: <http://www.kpmg.com>.
- Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee, and greenhouse gas disclosure. *British Accounting Review*, 47(4), 409–424. doi:10.1016/j.bar.2014.01.002.
- Magnaghi, E,& Aprile, R (2014): A Theoretical Perspective on This Critical Issue of Business and Economics, *Journal Integrated Reporting*, (5), 8, 1320-1337.
- Mainardes,W.E., Alves, H., & Raposo, M. (2011). Stakeholder's theory: Issues to resolve. *Management Decision* 49 (2), 226-252. Emerald Group Publishing Limited 0025-1747 DOI 10.1108/002517411111109133
- Nnamani, J.N, Onyekwelu, U.L & Ugwu, O.K (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research* (5),11-15.
- Odigie, O. L (2014). Environmental Justice and Poverty Alleviation: Roadmap to Sustainable development in Nigeria. *NIALS Journal of Law and Public Policy*.153-180.
- Ogbodo, S. G. (2010). Environmental protection in Nigeria: Two decade after the Koko incident, *Annual Survey of International and Comparative Law* 15 (1),
- Okafor, Regina G.(2012). Taxation and Nigerian economic development. *European Journal of Business and Management*, 46-56.
- Omesì, I., Ngoke, O.S., & Ordu, P.A. (2020). Non-oil revenue and economic development of Nigeria. *International Journal of Innovative Development & Policy Studies* 8(1),91-99

- Ordu, P.A & Anaele, C.A (2015). Problem of Using Tax Havens to Maximize After Tax Profits: A Study of Multinationals (MNCs) in Nigeria. *International Journal of Research in Business Studies and Management* (2) I6, 32-59.
- Ordu, P.A & Okoroafor, S. (2014). Sustaining Ethical Management Practice in contemporary organization: Challenges and Mitigations in Nigeria. *EBSU Journal of Contemporary Management*, (2)1,43-58.
- Osha, S (2007). *Ken Saro-Wiwas Shadow: Politics, Nationalism and the Ogoni Protest Movement*. Adonis and Abbey publishers Ltd.
- Otusanya, O.J. (2011). The Role of Multinational Companies in Tax Evasion and Tax Avoidance: The Case of Nigeria. *Critical Perspectives on Accounting*, 22(1).
- Pfeffer, J. (2003). Introduction to the classic edition, in Pfeffer, J. and Salancik, G. R., *The External Control of organizations: A Resource Dependence Perspective* (classic edition), Stanford University Press, Stanford, CA.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research Methods for Business Students*, (6th ed.) London: Pearson.
- Sobrasuaipiri, S. (2014). Environmental Justice in Nigeria: Reflections on the Shell-Ogoni Uprising, Twenty Years Afterwards. Responsible Development in a Polycentric World Inequality, Citizenship and the Middle Classes. *Paper presented at 14th EADI General Conference, 23-26 June, Bonn. Retrieved at www.gc2014.org.*
- Trireksani, T., & Djajadikerta, H. G. (2016). Corporate governance and environmental disclosure in the Indonesian mining industry. *Australasian Accounting, Business and Finance Journal*, 10(1), 18–28. doi:10.14453/aabfj.v10i1.3.
- Twumasi, Y. & Merem, E. (2006). GIS and Remote Sensing Applications in the Assessment of change within a Coastal Environment in the Niger Delta Region of Nigeria. *International Journal of Environmental Research & Public Health*, 3(1):98-106.
- Unegbu, A. O. & Irefer, D. (2011). Impact of VAT on Economic Development of Emerging nations||, *Journal of Economics and International Finance* Vol. 3(8), 492-503.
- Uwuigbe, U. & Jimoh, J.(2012), Corporate Environmental Disclosures in the Nigerian Manufacturing Industry: A Study of Selected Firms *African Research Review- An International Multidisciplinary Journal, Ethiopia Vol. 6 (3), Serial No.26, 71-83*.
- Uyigue, E. & Agho, M. (2007). Coping with Climate Change and Environmental Degradation in the Niger Delta of Southern Nigeria. *Community Research and Development Centre Nigeria (CREDC)*.
- Uyigue, E. & Oybeibu, A.E. (2007). Climate change and Poverty: Sustainable Approach in the Niger Delta Region of Nigeria. www2007.amsterdamconference.org/...AC2007_uyigueogbeibu.pdf.
- Uzoma, A.C. & Mgbemena, O.O (2015) Evaluation of some oil companies in the Niger Delta region of Nigeria: An Environmental impact approach, *International Journal of Environment*

and Pollution Research (3)2 13-31, August. Published by European Centre for Research Training and Development UK (www.eajournals.org) 18.

- Vourvachis, P. (2007). On the Use of Content Analysis (CA) in Corporate Social Reporting (CSR): Revisiting the Debate on the Units of Analysis and the Ways to Define Them, *British Accounting Association Annual Conference*, Royal Holloway, 3-5 April.
- Vourvachis, P. (2008). In Search of Explanations for Corporate Social Reporting (CSR): An Attempt to Revisit Legitimacy Theory, Kingston Business School, Kingston University Working Paper Series No 16, May.
- Worlu, Christian N. & Nkoro, Emeka (2012). Taxation and Economic Development in Nigeria: A Macroeconometric Approach|| *Academic Journal of Interdisciplinary Studies* 2(1), 222