

EVALUATION OF ENVIRONMENTAL ACCOUNTING AND ITS IMPACT ON SUSTAINABLE ECONOMY IN NIGERIA

ADESINA OLUTAYO MODUPE,

Department of accountancy,
The polytechnic, Ibadan

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ABSTRACT

This study investigated the evaluation of environmental accounting and its impact on the sustainable economy in Nigeria. Specifically, this paper examined the effect of environmental accounting on the life of the citizen and also on sustainable development in Nigeria. This study was narrowed to the 3 selected manufacturing companies (Portland Paint and Product, Bepak and Premier Feed Mills Nigeria Ltd) located in Ibadan metropolis, Oyo State. The primary source of data was used and out of two hundred (150) questionnaires that were distributed, 136 were received and only 124 fully filled were used in data analysis with the use of simple percentage and Chi-Square statistical tool. The major result of the hypothesis tested showed that environmental accounting as a significant effect on sustainable development with ($X^2_{cal} (16.65) > X^2_{tab} (16.65)$ at significant level 0.05) and also enhance the life of the citizen with ($X^2_{cal} (16.65) > X^2_{tab} (16.65)$ at significant level 0.05). Findings from the analysis of the data indicated that environmental accounting has enhanced sustainable development by reducing the environmental impact while increasing the value of an enterprise, satisfying human needs, contributing to the quality of life, and resource intensity. To this end, it is recommended that there is need for government to impose a restriction on the release of a toxic substance into the environment and stipulating the requirement which industries and facilities generating waste must meet.

Keywords: Environmental accounting, sustainable development, economy, and life of the citizen

1.0 INTRODUCTION

The response of firms to environmental liabilities has brought about the reconfiguration of corporate performance indices in a larger context under the subtle influence of environmental and social factors, in order to develop a holistic panorama of an entity's performance. This has led to growing demand from various stakeholders for measurement of a company's environmental practices and subsequent public disclosure of this information. As a result, a new area of accounting has emerged regarding environmental accounting.

The need for Environmental Accounting has become the concern and focus of nations and responsible corporate management. It became one of the foremost issues on the agenda of

nations and businesses earlier in the 1990s and the reasons for this were varied emanating from both within and outside of the firm and particularly at the global level (Okoye and Ngwakwe, 2004). A lot of government enactments, laws and regulations on environmental protection have been made in several nations of the world and Nigeria is slowly responding.

Environmental accounting is an inclusive aspect of accounting and it generates reports for both internal use, providing environmental information to help make management decisions on controlling overhead, capital budgeting and pricing, and external use, disclosing environmental information of interest to the government, public and to the financial community. Yakhon & Dorweiler (2004) emphasized that the impact of business activity on the environment is found in several forms: air, water, underground pollution, drinking water, land and habitat for endangered and threatened species, oceans, atmosphere, land-mass etc. An array of pollutants, including toxic, hazardous and 'warming' is accountable to business activities.

Environmental accounting is seen by corporate managers and environmental advocates alike as a necessary complement to improved environmental decision-making in organizations. Whether the goal is pollution prevention or some broader notion of "corporate sustainability", there is a widespread belief that sound environmental accounting will help firms identify and implement financially desirable environmental innovations (Boyd, 1998).

The increase in global environmental awareness and the campaign for sustainable economic development is redirecting the attention of firms towards environmental sensitivity (Ngwakwe, 2008). The quest for sustainability has caused an emergence of many global institutions enunciating varying norms that guide human interaction with the environment. These standards are influencing business corporations to understand that their strategic position in society has the power to influence behaviour and alter the state of the physical, social and economic environment. Environmental accounting describes the effort of accounting standard setters, professional organizations and governmental agencies to get corporations to participate proactively in cleaning and sustaining the environment and to describe fully, their environmental activities in either their annual reports or stand-alone environmental disclosure.

Environmentalists agree that it could be more cost-efficient and beneficial for companies to acquire pollution prevention or clean technology than those of pollution clean-up. It is also observed that in environmental regulations, there is a shift from the 'command and control' approach to market-driven forms in which pollution prevention alternatives are replacing pollution cleaning approach. It follows, therefore, that determining the appropriate pollution prevention approach may lead to additional decisions to be taken by management. Environmental issues for purpose of economic and cost accounting have also been controversial even though the topic has been identified for discussions for the past four decades

Mastrandrea & Schneider (2008) highlighted that the industrial revolution has brought economic improvement for most people in industrialized societies. Many enjoy greater prosperity and improved health. They opined that there have been costs, caused by factory pollutant ion that harmed the natural environment. However, the application of machinery

and science to agriculture has led to greater land use and therefore, extensive loss of habitats for animals and plants. These factors, in turn, have caused many species to become extinct or endangered.

The awareness of the environment and man's ability to cause damage started from the fifties of the 19th century. This concern had been repeatedly expressed in a series of international summits and consensus right from the sixties. The starting point that composed an organized through proves a large scale the celebrated public action of the club of Rome entitled "Limit to Growth that initiated a worldwide debate of economic growth at the expense of natural environment (Shiland, 2005).

In recent years, the adverse environmental effect of economic development has become a matter of great public concern all over the world. Gradually environment is becoming a much more urgent economic, social and political problem. Nigeria being a developing nation, endowed with abundant natural resources such as petroleum, natural gas, coal, limestone, vegetation etc is not devoid of environmental degradation. The nation, in an attempt to tap these resources to enhance its economic development and well-being of the citizenry invariable, finds herself experiencing an array of pollutants including carbon dioxide, warming and other greenhouse emissions.

The interest of accounting in the environment emerged from the reality that management needed financial data on environmental expenditures as a result of the increasing needs of different stakeholders such as; government, investors, lenders, the general public, customers, etc to have financial data on environmental performances of different organizations reported in financial statements (Ali, 2002). Consequently, the absence of comprehensive and verifiable information on environmental practices of companies may signal a practice where companies can pollute the environment and yet appear more economically efficient than others which incur costs to protect the environment.

Beredugo & Mefor (2012) highlighted that Nigeria as a developing country must continue to advance economically and thus requires increased exploitation of natural resources. They buttressed further that there exists a polarity between Nigeria's GDP and energy consumption, as they are highly correlated. They emphasized that most of the natural resources consumed are nonrenewable and are under threat of depletion, and a persistence consumption of our most valued natural resources in present-day, would compromise the ability of future generations to meet their own needs. Oil exploration and government activities may have reduced the quality and usefulness of life through gas flaring, industrial pollution, oil spillage, deforestation and other related problems.

However, huge amount of income is derived daily by the country from sales of crude oil and its by-products. Therefore, one would generally assume that this money should have a significant impact at least on the development of oil and on the mineral producing communities. This should be so because it is on record that the oil and gas industry remains the major income earner (about 90% of the total revenue) for the nation (National Economic Empowerment and Development Strategy (NEEDS, 2004 and Shell, 2000).

Ogbeifun (2007) argues that decades of development have been lost apparently due to slow economic growth, inadequate development plan, and corrupt practices in high places. Again, their per capita income of about \$300 a year reveals that the country remains one of the poorest in the world. In spite of the country's natural endowments such as vast mangrove forest, wet and fertile lands, serious threats from the exploitation of timber, oil spills, gas flaring and the impacts of increasing coastal urbanization appear to be posing serious challenges to Nigeria (NEEDS, 2004). Despite these, no research work has targeted to investigate extensively, environmental accounting and its performance in a sustainable economy via sustainable economic growth. Therefore, the researcher interest is to investigate environmental accounting and its performance in a sustainable economy. The main objective of this study is to investigate the environmental accounting and its impact on the sustainable economy in Nigeria and the specific objectives are;

- i. To examine the effect of environmental accounting on the life of the citizen
- ii. To examine the extent to which environmental accounting improve sustainable development

2.0 CONCEPTUAL REVIEW

The term environmental accounting has many meanings and uses. It can support national income accounting, financial accounting or internal business managerial accounting.

Hansen and Mowen (2000) have defined environmental costs 'as costs associated with the creation, detection, remediation and prevention of environmental degradation'. According to the US EPA (1995), Green Accounting or Environmental Accounting is defined as 'Identifying and measuring the costs of environmental materials and activities and using this information for environmental management decisions. The purpose is to recognize and seek to mitigate the negative environmental effects of activities and systems'. Howes (2002) defines Environmental accounting as 'the generation, analysis and use of monetarized environmentally related information in order to improve corporate environmental and economic performance.

In the opinion of Howes (2002), environmental accounting does not only focus on internal and external environmental accounting but links environmental and financial performance more visibly. Environmental accounting assists in getting environmental sustainability embedded within an organization's culture and operations. The aim is to provide decision-makers with information that enable the organization to reduce costs and business risks and to add value.

Yakhou and Dorweiler (2003) specified that Environmental accounting is an inclusive field of accounting. It provides reports for both internal uses, generating environmental information to help make management decisions on pricing, controlling overhead and capital budgeting, and external use, disclosing environmental information of interest to the public and to the financial community.

Environmental Accounting enables organizations to track their environmental data and other greenhouse gas (GHG) emissions against reduction targets and facilitates environmental

reporting to provide sustainability-related data that is comprehensive, auditable, and timely to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection in Nigeria, (UNCTAD, 2003).

Environmental accounting covers information relating to all aspects of the environment. It includes environment-related expenditure, environmental benefits of products and details regarding sustainable operations (Irish times, 2000). Environmental Accounting is 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 (Corner, 2006)

Seetharaman, et al; (2007) opined that environmental accounting is used to assess full environmental costs associated with activities and / or products. They also emphasized that environmental accounting can be used to track the environmental performance of the organization in a more measurable manner. The key areas for monitoring are aggregated emission to air, water effluent discharge, soil contamination and boundary noise level.

2.1 Objectives of Environmental Accounting

According to Pramanik, Shil and Das (2007), environmental accounting is required to fulfil a lot of demands from different stakeholders. However, for academic reason, the following basic objectives can be identified on the logical ground;

- i. Discharge of Organisation's Accountability: Environmental accounting would enhance the discharge of the organization's accountability and increase its environmental transparency. It helps the negotiation of the concept of environment and determines the company's relationship with the society in general and the environmental pressure group in particular. This helps an organization seeking to strategically manage a new and emerging issue with its stakeholders
- ii. Propagation of Environmental Friendliness: Because of the ethical investment movement, ethical investors require the companies to be environmentally friendly. Therefore, by upholding a friendly image, companies may be successful in attracting fund from "green" individuals and groups.
- iii. Enlightenment of Environmental Commitment through Disclosure: By making environmental disclosure, companies may show their commitments towards introduction change and thus appear to be responsive to new factors. By installing enlightenment approach of environmental accounting, companies can increase their image of being enlightened to the outside world and this can be regarded as enlightened companies (Pramanik, et al 2007).

By cultivating the enlightened approach of environmental accounting, companies can increase their image of being enlightened to the outside world and this can be regarded as enlightened companies (Pramank, et al, 2007).

2.2 Benefits of Environmental Accounting

The benefits of understanding an environmental accounting initiative are that the identification and greater awareness of environment-related costs often provide the opportunity to find ways to reduce or avoid these costs, whilst also improving environmental performance (Tapang, Basse & Bessong, 2012).

Richardson (1999) identified that, more elaborately, environmental accounting is an effective tool for placing environmental issues firmly on top management agenda, providing useful data to inform environmental and financial manager's decision-making, and concretely demonstrating an environmental commitment to stakeholders. The environmental Protection Agency (EPA) adds the following benefits:

- i. Many environmental problems can be significantly reduced or eliminated as a result of effective decisions.
- ii. Environmental cost (and potential savings) may be obscured in overheads or otherwise overlooked
- iii. Environmental cost can be offset by generating revenues through sales of waste or by-products or recycling them
- iv. Understanding of environment costs can promote more accurate costing and pricing of products.
- v. Competitive advantages with customers can result from processes, products and services which can be demonstrated to be environmentally friendly; and
- vi. Accounting for environmental costs and performance can support a company's development and operation of an overall environmental management system.

2.3 Reasons for Companies to Report their Environmental Activities in Nigeria

There are several reasons environmental issues should be incorporated into the companies' Annual Reports. Some of them include;

- i. Environmental Accounting may lead to the avoidance of penalty or fines imposed by the Environmental Protection Agency in the countries where such legislation exists.
- ii. Environmental Accounting promotes research and development which will eventually translate into a significant reduction in many environmental costs through the design of more environmentally friendly production process. (Medley 1997)
- iii. Environmental Accounting can attract more investors because investors sometimes need information on environmental performance and expenditure to make decisions.
- iv. Environmental Accounting can promote more accurate costing and pricing of the product.
- v. Environmental Accounting may attract incentives from the government in form of tax reduction and subsidies.
- vi. Environmental Accounting can lead to the development of the Environment Management System (EMS) which is necessary for companies engaged in International Trade. (Hutchinson 2002 and Lethmathe and Doost 2000).

3.1 THEORETICAL REVIEW

3.1 Stakeholders Theory

The basic proposition of the stakeholders' theory is that the firm's success is dependent upon the successful management of all the relationships that a firm has with its stakeholders a term originally introduced by Stanford research institute (SRI) to refer to those groups without whose support the organization would cease to exist (Freeman 1983).

The stakeholder's theory proposed an increased level of environmental awareness which creates the need for companies to extend their corporate planning to include the nontraditional stakeholders like the regulatory adversarial groups in order to adapt to changing social demands (Trotman, 1999). The main concern of the stakeholders' theory in environmental accounting is to address the environment cost elements and valuation and its inclusion in the financial statements.

3.2 Legitimacy Theory

Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values and definitions (Suchman, 1995).

According to Tilling (2008), legitimacy theory offers a powerful mechanism for understanding voluntary social and environmental disclosure made by corporations, and that this understanding would provide a vehicle for engaging in critical public debate. The problem for legitimacy theory in contributing to the understanding of accounting disclosures specifically and as a theory, in general, is that the term has an occasion been fairly loosely. This is not a problem of the theory itself, and the observation could be equally applied to a range of theories in a range of disciplines. Legitimacy theory suggests that a firm may be in one of four phases with regard to its legitimacy.

3.3 Positive Accounting Theory

This theory suggests and explains why firms make voluntary social disclosures. Based on the original work of Watts and Zimmerman (1998), the positive accounting theory have directly sought to establish evidence for the political cost hypothesis as an explanation for firms social disclosures. Along with numerous others, Gray et al (1995) dismiss the positive accounting arguments on the grounds of the underlying assumptions of the theoretical framework. As they suggest positive theories are not about what (social) reporting should be, but rather about what it is on the face of it, and on the basis for explaining why firms are making social disclosures, positive accounting explanations are less easily dismissed.

4.0 EMPIRICAL REVIEW

Field (2001) has done tremendous work on the economics of natural resources and in this instance explored the approach of benefit-cost analysis through discounting of future based input and output values of environmental projects and activities. Measuring benefit-cost analysis has been essentially through regulatory Evaluation Impact Assessment (EIA) study on the environment.

Enaharo (2009) in his investigation with the federal ministry of environment, EIA study conducted by the oil & gas (exploration and producing) manufacturing and other companies having activities that impact on the environment has been accepted as a regulatory requirement in Nigeria. Achieving effective EIA is however fraught with uncertainties in Nigeria since the objective estimation of input and output values is not so reliable.

Besides, there is excessive fluctuation in the discount factor for purpose of benefit-cost analysis. Non-available market values for certain natural resources costs and benefits such as the fauna, fishing pods or rivers, among others, makes it extremely difficult to place a monetary value on the factors of measurement.

Epstein (2011) explains the pertinent aspect of environmental degradation and cost as those including emissions into the air, water and land. It also includes aspects of untreated domestic waster outflows into the river and coastal oceans and quantities of solid water that must then be disposed of perhaps through land spreading or incineration. Pollution includes airborne S02 emissions from power plants by stack – gas scrubbing which leaves a highly concentrated sludge and degradation which incorporated midnight dumping, illegal dumping along the sides of roads or in remote areas.

Hughes et al. (2001) examined environmental disclosures made by U.S. manufacturing firms in 1992 and 1993 using a modified Wiseman index to measure disclosures in the president's letter, MD&A, and notes sections of the annual report, and the CEP rankings to proxy for environmental performance. They found that firms rated as poor by the CEP generally make the most disclosures.

Al-Tuwaijri et al. (2004) employed simultaneous equations approach to investigate the relations among environmental disclosure, environmental performance and economic performance. They used proxy for environmental performance using the percentage of total waste generated recycled as identified using the TRI database and measure environmental disclosure using content analysis in four categories, potentially responsible parties' designation, toxic waste, oil and chemical spills, and environmental fines and penalties, disclosures which are largely non-discretionary. Based on these proxies, Al-Tuwaijri et al. (2004) documented a positive association between environmental performance and environmental disclosure.

Salama (2005) used regression analysis to measure the impact of environmental performance on financial performance. The findings showed that a positive relationship existed between environmental performance and firm financial performance.

Montabon, Sroufe, and Narasimhan, (2007) in their paper examined the relationship between environmental management practices and firm performance. They established that a significant and positive relationship exists between environmental management practices and measures of firm performance.

Enahoro, (2009) used T-test statistics, Pearson product-moment correlation and regression analysis and observed that environmental accounting disclosure does not take the same pattern among quoted firms in Nigeria.

Basse, Sunday & Okon (2013) on the other hand used Pearson's product-moment correlation analysis of oil and gas companies in the Niger Delta region of Nigeria. They observed that environmental cost has satisfied relationship with the firm's profitability.

Adediran and Alade (2013) used multiple regression analysis of 14 randomly selected companies quoted on the Nigerian Stock Exchange 2010. Their findings show that environmental accounting has a positive relationship with net profit margin, dividend per share and a negative relationship with return on capital employed and earnings per share.

5.0 METHODOLOGY

The researcher adopted a descriptive and explanatory research survey. This enabled the relationship between the dependent variable (sustainable economy) and independent variable (environmental accounting) to be explored. The investigation is based on a sample of three (3) selected manufacturing companies in Ibadan metropolis, Oyo State, namely; Portland Paint & Product Plc, Bevpak Nigeria limited and Premier Feed Mills Nigeria Ltd. Simple random techniques was used. The three manufacturing companies were deliberately chosen because of the magnitude of emission released to the environment and the volume of products and staff strength. The data for the study were obtained from primary sources with the use of a questionnaire specifically designed to obtain reliable information as regards the variables used. The four Likert scale grades strongly agreed (SA), Agree (A), Disagreed (D) and Strongly Disagreed (SD) were used to get a response of respondents on the study topic. Out of 150 questionnaires that were distributed to the three selected companies in 50 questionnaires each, only 136 questionnaires were returned and 124 that were fully filled used in data analysis. Data obtained here were analyzed through an average mean score and Chi-square statistical tools. The Chi-square tool was presented below;

$$X^2_c = \sum \frac{(f_o - f_e)^2}{f_e}$$

Where f_o = Observed Frequency, f_e = Expected Frequency and X^2 = Chi-square test.
 X^2_c = Chi-Square calculated and X^2_t = Chi-Square tabulated. Here, the Null hypothesis is accepted where $X^2_c < X^2_t$ and rejected where $X^2_c > X^2_t$

6.0 RESULT OF FINDINGS

Table 1: Perception of respondents how environmental accounting affects the life of the citizen

S/N	Questions	Responses' Frequency and percentage				
		N	f ₄ (SA)	f ₃ (A)	f ₂ (D)	f ₁ (SD)
1	Providing the communities with good drinking water, construction of good roads, health care centres etc. by companies enhance quality of life of the host communities	124	74 (60%)	46 (37%)	3 (2%)	1 (1%)
2	Environmental accounting enables Companies to have adequate environmental control measures in line with international regulatory laws	124	79 (64%)	42 (34%)	4 (3%)	1 (1%)
3	Environmental Accounting brings about an increase in the company's profile as a result of an increase in the area of environmental responsibilities	124	76 (61%)	46 (37%)	1 (1%)	1 (1%)
4	Environmental Accounting guaranties better access and terms from lending institutions due to favourable environmental risk incidents	124	82 (66%)	41 (33%)	1 (1%)	0 (0)

Source: Field Survey (2019).

Table 1 shows that the environmental accounting affects the life of the citizen based on the fact that a large number of the respondents are agreed that: Providing the communities with good drinking water, construction of good roads, health care centres etc. by companies enhance the quality of life of the host communities; Environmental accounting enables Companies to have adequate environmental control measures in line with international regulatory laws; Environmental Accounting brings about an increase in the company's profile as a result of an increase in the area of environmental responsibilities and Environmental Accounting guarantees better access and terms from lending institutions due to favourable environmental risk incidents

Table 2: Perception of respondents on the extent to which environmental accounting improves sustainable development in Nigeria

S/N	Questions	Responses' Frequency and percentage				
		N	f ₄ (SA)	f ₃ (A)	f ₂ (D)	f ₁ (SD)
1	Environmental Accounting calls for new inventions because organizations can recycle what was formerly considered waste to invent new products.	124	73 (50%)	47 (38%)	1 (1%)	2 (2%)
2	Environmental accounting increases company's turnover by promoting their product image	124	77 (62%)	44 (35%)	2 (2%)	1 (1%)
3	Environmental accounting ensures compliance with environmental laws which in turn will minimize its exposures to future financial loss arising from environmental incidents.	124	80 (64%)	42 (34)	1 (1)	1 (1)
4	Environmental accounting makes company to be more attractive to investors as a result of good company and product image	124	75 (60%)	48 (39%)	1 (1%)	0 (0)

Source: Field Survey (2019).

Table 2 shows that environmental accounting improves sustainable development in Nigeria Based on the fact that a large number of the respondents are agreed that: Environmental Accounting calls for new inventions because organizations can recycle what was formerly considered waste to invent new products; Environmental accounting increases company's turnover by promoting their product image; Environmental accounting ensures compliance with environmental laws which in turn will minimize its exposures to future financial loss arising from environmental incidents and Environmental accounting makes company to be more attractive to investors as a result of good company and product image.

Test of Research Hypotheses

H1: The environmental accounting does not enhance life of the citizen

Options	Observed(O)	Expected(E)	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
SA	78	31	47	2209	71.26
A	43	31	12	144	4.65
D	2	31	-29	841	27.13
SD	1	31	-30	900	29.03
Total	124	124			132.07

Source: Field Survey (2019)

The calculated chi-square (X^2_c)= 132.07. To get the tabulated chi-square (X^2_t), the degree of freedom is obtained by $V = (R-1) (C-1)$ and with this unit statement. $V = (4-1) (1) = 3$. The value of chi-square tabulated at the degree of freedom 3 with 5% level of significance is 7.815.

Since the calculated chi-square (X^2_c) is greater than the tabulated chi-square (X^2_t), that is 132.07 is greater than 7.815, the researcher should reject the null hypothesis, and conclude therefore that the environmental accounting enhances the life of the citizen

H2: Environmental accounting does not have a significant impact on sustainable development.

Options	Observed(O)	Expected(E)	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
SA	76	31	45	2025	65.32
A	46	31	15	225	7.26
D	1	31	-30	900	29.03
SD	1	31	-30	900	29.03
Total	124	124			130.64

Source: Field Survey (2019)

From the table above, chi-square calculated (x^2_c) is 130.64. The chi-square tabulated (x^2_t) is 7.815. at 5% level of significance. Since the calculated chi-square (X^2_c) 130.64 is greater than the tabulated chi-square (X^2_t) 7.815, the researcher should therefore reject the null hypothesis and conclude that the environmental accounting has a significant impact on sustainable development.

7.0 CONCLUSION

This study was aimed to evaluate environmental accounting and its impact on sustainable development in Nigeria and specifically investigated its influence of life of the citizen and

sustainable economic growth. Basically, Environmental accounting appears as an inclusive aspect of accounting and it generates reports for both internal use, providing environmental information to help make management decisions on controlling overhead, capital budgeting and pricing, and external use, disclosing environmental information of interest to the government, public and to the financial community.

The need for Environmental Accounting has become the concern and focus of nations and responsible corporate management. It became one of the foremost issues on the agenda of nations and businesses earlier in the 1990s and the reasons for this were varied emanating from both within and outside of the firm and particularly at the global level (Okoye and Ngwakwe:2004). A lot of government enactments, laws and regulations on environmental protection have been made in several nations of the world and Nigeria is slowly responding. Environmental Accounting is to enhance sustainable development by reducing the environmental impact while increasing the value of an enterprise, satisfying human needs, contributing to the quality of life, and resource intensity through environmental performance reporting occasioned by the ratio between an environmental variable and a financial variable that measures the environmental performance of an enterprise with respect to its financial performance.

8.0 RECOMMENDATIONS

The following recommendations are suggested based on the result of findings

- i. Government should make it mandatory for the establishment to install facilities capable of reducing or eliminating pollution arising from their production activities
- ii. There should be a specification of maximum limits of effluent parameter allowed to be discharged into the air, streams, rivers, drains and ground.
- iii. Organizations should formulate and implement environmental-friendly policies to enhance their competitiveness.
- iv. Government should impose a restriction on the release of a toxic substance into the environment and stipulating the requirement which industries and facilities generating waste must meet.
- v. Establishments should be required to develop contingency plans for handling unusual and accidental discharge and developing strategies for waste reduction.
- vi. Government should make environmental reporting in annual reports compulsory since most organizations hardly report their environmental activities in their reportage.
- vii. Environmental accounting standards should be published locally and internationally and reviewed continually to ensure dynamism compliance.
- viii. Corporate organizations on their part should ensure that they comply with the environmental laws of the nation as it will go a long way in enhancing their performances.
- ix. Government agencies should give a tax credit to organizations that comply with its environmental laws of the land which will encourage environmental reporting.
- x. Government should make sure there is the propagation of environmental awareness within the host communities.

REFERENCES

- Ali, M. E. (2002). Transfer of sustainable energy technology to developing countries as a means of reducing greenhouse gas emission: the case of Bangladeshi; Review of relevant Literature; 8(2): 10 -15.
- Bassey, E.B; Sunday, O. E & Okon, E. E. (2013). The Impact of Environmental Accounting and Reporting on Organizational Performance of selected Oil and Gas Companies in Nigeria Delta Region of Nigeria. Research Journal of Financial and Accounting, 4(3).
- Bevedugo, S.B. & Mefor, I. P. (2012). The Impact of Environmental Accounting and Reporting on Sustainable Development in Nigeria. Research Journal of Finance and Accounting, 3 (7).
- Enahoro. J.A (2009). Design and Bases of Environmental Accounting in Oil and Gas and Manufacturing Sectors in Nigeria. Ph.D Thesis, Covenant University Ota, Nigeria. p.92.
- Freeman A B (1983) Towards an Epistemology for Radical Accounting: Beyond Objectivism and Relativism. Critical Perspective on Accounting, 6(1), 485 – 496.
- Epstein, M. J. (2008). Making sustainability work: Best practices in managing and measuring corporate Social, environmental, and economic impacts, UK: Greenleaf Publishing Limited
- Field, B.C (2001). Natural Resource Economics, An Introduction, Boston, McGraw-Hill
- Howes, R. (2002). Environmental Cost Accounting: An Introduction and Practical Guide, London, The Chartered Institute of Management Accountants.
- Hutchinson, P.D (2000). Environmental Accounting: Issues, reporting and disclosure. Journal of Applied Business Research, 16 (4).
- IrishTimes (2000). Environmental Accounting and Social Responsibility and Its Impact on Annual Reporting. Business 2000, seventh edition.
- Letmathe, R. and Doost, M. (2000) "Environmental Cost Accounting and Auditing" Managerial Auditing Journal 15 (8).
- Medley A.A. (1997) "Environmental Accounting – what does it mean to professional Accountants?" Accounting Auditing and Accountability journal 10(4).
- Mastrandrea, M. and Schneider, S. H. (2008). "Global Warming." Microsoft R EncartaR 2009 [DVD] Microsoft Corporation. All rights reserved.
- Okoye, A.E and Ngwakwe, C.C. (2004). Environmental Accounting: A convergence of antecedent divergence. Accountancy; Management Companion, edited by Ezejelue, A.C and Okoye, A.E, Nigeria; Nigerian Accounting Association (NAA).

- Pramanik, A.K; Shil, O.H & Das, A.B. (2007). Environmental Accounting and Reporting, New Delhi, Deep Publication P.V.T ltd.
- Rocky H. (2009) Environmental Accounting Applications for Sustainable Consumption and Production Policies, Department of Environment, United Kingdom, 3 – 7.
- Rikhardsson, P.M. (1999). "Statutory environmental reporting in Denmark: status and challenges" UK. Greenleaf publishing.
- Suchman, M. C. (1995). "Managing legitimacy: strategic and institutional approaches," academic of management journal, 20(3), 571-596.
- Tapany, A.T; Bassey B.E & Bessong, P.K (2012). Environmental Activities and its implications on the profitability of oil companies in Nigeria. International Journal of Physical and Social Sciences, 2(3), 285 – 302.
- Tapang, A.T., Bassey, B.E. & Bessong, P.K. (2012). Environmental activities and its implications on the profitability of oil companies in Nigeria. International Journal of Physical and Social Sciences, 2(3), 285-302
- Trotman, K (1999). Social Responsibility Disclosure by Australian Companies", The Chartered Accountant in Australia, 24 – 28.
- Tilling, M. (2004). "Communication at the edge. Voluntary social and environmental reporting in the annual report of legitimacy threatened corporation, "APIRA conference proceedings Singapore.
- UNCTAD (2003). Integrating Environmental and Financial Performance at the Enterprise Level: A Methodology for Standardizing Eco-efficiency Indicators.
- U.S EPA (1995). An Introduction to Environmental Accounting as a Business Management Tool: Key Concepts and Terms, Office of Pollution Prevention and Toxics, June. Retrieved in May 2005 from <http://www.epa.gov/opptintr/acctg/resources.htm>
- Williams, M.S. (1999). Voluntary Environmental and Social Accounting disclosure Practices in the Asia – Pacific region: An International empirical test of Political economy theory. The International Journal of Accounting, 34(2), 209 – 214.
- Watts, R. L. (1997). "Corporate financial statements. A product of the Market and political processes," Australian Journal of Management. 53-61.
- Watts, R. L. and Zimmerman, J. L. (1986). Positive accounting theory. London: prentice-hall.
- Yakhou, M & Dorweiler, V (2004). Environmental Accounting: An Essential Component of Business Strategy. USA: John Wiley and Sons Ltd.