

ENVIRONMENTAL ACCOUNTING PRACTICES AND REGISTERED COMPANIES IN YOBE STATE, NIGERIA

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Abstract

The effect of waste products from organisations and entities affect the quality of air, water, and land in a very negative way. Thus, environmental accounting practices can play a role to minimise or completely eliminate these wastes. This paper therefore, examines the practice of environmental accounting as a tool for environmental management in Yobe State of Nigeria. The use of primary and secondary sources of data was employed for the study, while the simple random and purposive sampling methods were used for the data collection, Chi – square was applied for testing the formulated hypotheses. At the end of the analysis, the study revealed that; companies in Yobe state do not practise environmental accounting and the practice of environmental accounting has effects on environmental management. The paper concludes with the recommendation that government should put pressure on companies to practice environmental accounting and should organise awareness campaign on the concept of environmental issues to companies and public. Companies should also send their staff for training on environmental accounting concept.

Keywords: Waste Products, Corporations, Environmental Accounting and Pollution

Introduction

It is a statutory requirement for companies to prepare and present their annual financial reports in Nigeria for internal and external users. The report has both quantitative and qualitative aspects of the operation of the companies. The contents should not only report the performance but it should include the extent of their corporate social responsibility (CSR), thus requiring environmental accounting.

CSR came to existence as a result of the degradation of the environment by companies in the course of providing services, especially production. Degradation may be in terms of land, air or sea pollution. Expenditure must be incurred in order to undertake CSR, thus necessitating accounting entries, hence requiring environmental accounting.

Environmental issues are now taken very seriously by both individuals and corporations. People now realize the effects of pollution more especially waste products from corporations that could potentially damage their environment. Most people especially in developed economy recognize that preserving clean air, water, and land is more important to their lives than having cheap or lower-cost products from corporations. Therefore, they are willing to pay more for a product that is environmentally friendly. Corporations on the other hand, place high value on environmental

responsibility by giving due consideration in preserving the environment so as to attract more customers.

The issue of environmental management is a global phenomenon, stemming from a flow of evidence about ecological degradation caused by economic development (Dauda I. A. and Suleiman B. A. 2018, Fitriani, 2013, Taylor, et al., 2001). Now, due to cost pressures, customer awareness, supply chain relations and activities of environment, campaigners encourage the companies to go for environmental initiatives (Perry & Sheng, 1999).

Oladoye (2009) stated that the concept of environmental accounting shall be viewed as placing monetary value on known physical quantity of the resource in order to obtain a wealth value for natural capital. Becks (2019) and Banarjee (2001) were of the view that, environmental accounting is the identification, prioritization, quantification and incorporation of environment cost into business decision. Ismail (2009) looks at environmental accounting as a process of collecting accurate data on investment and cost required for its environmental conservation, initiatives and analysing the collected data in order to re-select investment effect and cost efficiency in managerial decision making.

Environmental accounting demand among other things that, corporations should include the cost of altering the natural environment in their accounts and corporate reports. It is against this background that the study examines the practice of environmental accounting as a tool for environmental management for which Yobe State is taken as a case study.

Statement of the Problem

Companies operating in Yobe State do not necessarily concern themselves about the effects of their operations on environment. They do not take into consideration environmental issues like toxic substances and wastes before siting the business and during the operations of the business as such, the quality of air, water, and land is negatively affected. The consequence effect will be for example the spread of diseases in a society and degrading the quality of land for settlement and agricultural purposes. These effects may continue to accumulate negatively if companies in the state do not start to practice environmental accounting

Aim of the Study

The general Aim of the study is to examine the effect of environmental accounting on environmental management. The specific objectives to accomplish the aim are to:

- (i) examine environmental accounting practice by companies in Yobe State
- (ii) assess how environmental accounting practice would improve environmental condition and company's management in Yobe State.

The Concept of Environmental Accounting

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

Environmental accounting as a support to National Income Accounting focused on placing monetary value on known physical quantities of the resource in order to obtain a wealth value for natural capital. The natural resource stock account is usually recorded both in physical and monetary terms, (Oladoye 2019). The term Environmental Accounting may refer to this national economic context. For example, environmental accounting can use physical or monetary units to refer to the consumption of the nation's natural resources, both renewable and non-renewable.

Publicly held corporations report information on their financial condition and performance through quarterly and annual reports, governed by rules set by International Financial Reporting Standards and Generally Accepted Accounting Principles (GAAP). Environmental accounting in this context refers to the estimation and public reporting of environmental liabilities and financially material environmental costs. Baily (2019).

Just as management accounting refers to the use of a broad set of cost and performance data by a company's managers in making a myriad of business decisions, environmental accounting refers to the use of data about environmental costs and performance in business decisions and operations. Backes (2019).

Review of Empirical Studies

Dauda and Suleiman(2018), Their paper examined the overall concept of Environmental Accounting and as well identifies the specific companies' approach to it. Eexploratory research designed was used to explain and highlight the importance of the concept of environmental accounting and the various approaches adopted by companies to recognize it. Secondary source of data was employed. The research concluded that, Environmental accounting is an important tool for understanding the values and roles played by the natural environment in the economy. Their finding revealed that environmental accounting is not practice and recommended for policy intervention.

Okafor (2018), studied the effect of environmental costs on firm performance. To achieve this objective, the study made use of financial reports of Oil and Gas Companies quoted in the Nigerian Stock Exchange Market from years 2006-2015. Regression analysis was employed with the aid of Statistical Package for Social Sciences (SPSS). The is of the view that environmental performance will be affected positively and rduces environmental and social cost of organisation.

Thi, Nguyen and Thi (2019) investigated construction material manufacturing enterprises in Vietnam with medium and large scales, which is considered one of the industries causing significant negative impacts on the environment. It was a survey study using SPSS 22.0 software to process data. The research results indicated that there are six factors that positively influence the application of Environmental management accounting (EMA) practices, including government enforcement, stakeholder interest, positive environmental strategies, community expectations, professional education network, and financial condition, of which, government enforcement has the most significant and positive relationship with the adoption of EMA. On the other hand, it appears that the application of EMA positively impacts financial efficiency and environmental efficiency. As found by many previous studies, environmental efficiency also strongly positively impacts financial efficiency. Thus, innovative solutions to reduce environmental pollution can promote enterprises' profitability.

Yuliarinia, othman and Ismaila (2017) conduct a qualitative research to explore Environmental Accounting (EA) practices in a setting that do not have a standard EA or in settings where accounting policy put more emphasis on the principal base rather than the rule base accounting. A triangulation was used in conducting the research.their findings are in the synchronic pattern and provide linkage among regulators (environmental and accounting regulators) and internal managements. The sstudy contributed tonthe body of knowledge by highlighting what EA is all about.

Eze, Nweze and Enekwe (2016), studied the Effects of Environmental Accounting on a Developing Nation. They identified environmental accounting issues and the effects of these environmental factors on the life of Nigerians. It was discovered that environmentally friendly organizations who voluntarily disclose their environmental activities enjoy high level of competitiveness. Environmental accounting motivates organizations to track their greenhouse gas emissions and other environmental elements against reduction or elimination point. They recommended that companies should adopt acceptable and uniform standards for the purpose of control and measurement of performance, and should design products which generate less waste or emission during their life cycle.

Jerry, Teru and Musa (2015) studied disclosure of environmental accounting information in annual report of companies in Nigeria. The study analyzed environmental accounting disclosures practices of Nigerian quoted firms and see how it varies from one company to another since there are no mandatory disclosure guidelines. A sample of 8 quoted companies was selected out of 19 consumer goods companies listed on the Nigerian stock exchange. Content analysis was used to obtain data from published annual reports of 2013 of the selected firms. The data obtained were analyzed using one way analysis of variance to test the hypothesis. The study revealed that accounting standards do not significantly influence environmental accounting disclosures. The non-existence of the standard Lead to lack of uniformity in disclosure and variations obtained in testing the hypothesis. It was recommended that with the pressures companies are subjected to disclose every information about their operations, it would be proper if the international accounting standards setting body comes up with a uniform standard on how companies should disclose their environmental accounting information.

Emeakponuzo and Udih (2015) assessed the impact of government legislations on environmental accounting practice and compared current practices across firms in different sectors of the economy. A survey of 25 quoted firms from different sectors of the economy revealed that much attention has not be given to the cost of natural resources damages in project evaluation. Hypotheses were tested using Chi-square and Kendall Coefficient of Concordance at 5% level of significance. The results of the hypotheses tested showed that environmental accounting practice is significant in benchmarking standard for corporate reporting and that compliance with Nigerian environmental protection laws has not had significant influence on environmental accounting practice because the issues of enlightenment, enforcement and compliance have been overlooked. It revealed that in developing an appropriate Environmental Management System (EMS), the contribution of plant environmental staff is important; they should work in cooperation with accountants. The study recommended that accounting professionals need to be trained in environmental accounting methods and the Financial Reporting Council (FRC) should develop an accounting standard that will incorporate full consideration of financial and physical impacts of business activity on the environment.

Dibia and Onwuchekwa (2015) studied the determinants of environmental disclosures using oil and gas companies in Nigeria. Specifically, they examined the effect of Firm size, Profit, Leverage and Audit firm type on environmental disclosures. Cross-sectional research design was utilized in undertaking the study. A sample of 15 companies drawn from the oil and gas sectors of the Nigerian stock exchange for 2008-2013 financial years was used for the study. Secondary data was sourced from the annual reports of the sampled companies while the Binary regression technique was used as the data analysis method. The finding of the study revealed that there is a significant relationship between company size and corporate social responsibility disclosures. There is no significant relationship between Profit and corporate social responsibility disclosures. It also

found out that there is no significant relationship between Leverage and corporate social responsibility disclosures. Finally, there is no significant relationship between audit firm type and corporate social responsibility disclosures. They concluded that the voluntary stance of environmental reporting has often be used as a cliché for companies to under report their effect on the environment and this is responsible for the negligence of several corporate entities with regards to corporate social and environmental reporting. The study recommended that incentives be put in place to motivate disclosures.

Dunk (2002) investigated the extent to which product quality and the implementation of environmental accounting positively influence quality performance. He suggested that the integration of environmental issues into financial decision processes by using environmental accounting would contribute to the enhancement of quality performance and firm performance as a whole. Even though, the author statistically proved his hypothesis that the implementation of environmental accounting and product quality positively affects quality performance ($R^2 = 0.212$ or 21.2 percent can be explained by this model), he did not determine the other factors that may implicate quality performance. In addition, the author did not test his hypothesis in other geographical areas that can support integrated approach in managing environmental accounting and product quality.

Kumaran, et.al (2001), discussed about the life cycle environmental cost analysis (LCECA) model that include eco-costs into the total cost of the products. Eco-costs are associated with both direct and indirect costs of the environmental impact caused by the product in its entire life cycle. The authors also described how the LCECA model could be used to identify the feasible alternatives for cost-effective, eco-friendly parts/products. This attempts to incorporate costing into the life cycle assessment (LCA) practice, which is a systematic evaluation of the needs and opportunities to reduce the environmental burdens associated with energy and raw material use, and waste emissions throughout the life cycle of a product, process or activity. In addition, the authors also showed about the mathematical model of LCECA that aims to define the correlation of the various eco-costs with the total cost. This model has been converted into a computational LCECA model, to compare the ecocosts of the alternatives. The current limitation of the LCECA model discussed by the authors proved that the model is not able to provide the full range of possible outcomes that would result from variances in the cost estimates.

Analoui and Karami (2002), explore about the chief executive officers' (CEO) perception of the environmental scanning in relation to the firm's performance in SME sector in the context of the British electrical and electronic firms. The authors disaggregated the SME sector into three components, which are micro-enterprises, small enterprises and medium enterprises. Not surprisingly, it is widely viewed as the first step in the process of strategic management. It is concluded that there is a significant relationship between increasing environmental scanning of the firm, and the success of firm performance in small and medium sized enterprises. The weakness of this article is that the authors did not include environmental management as part of environmental scanning parameters study for the CEOs to consider in managing their firm.

Pun et, al. (2002), discussed about the increasing consciousness of sustainable development and reconciling production with ecosystem conservation have fostered the adoption and implementation of environmental management system (EMS). The authors have investigated the critical processes and factors that have effect on EMS planning in Hong Kong. The framework can be modified to cater for varied business nature and operations in industry. In this article, the empirical findings suggest that the are several characteristics and factors contributing to the success in the EMS planning process such as visible management commitment, integrated

management structure, formulation of environmental strategies, recognition and adjustment of organizational ability and recognition and adaptation of environmental initiatives.

Methodology

The survey method of research design was adopted for this study. It was used for the purpose of obtaining data to enable the researcher answer research questions. The researchers utilized primary data in the course of this study. The primary sourced information was from the questionnaire administered. Two hypotheses were developed and tested. Data were generated by administering questionnaire to the target audience. Statistical Package for Social Sciences (SPSS) was used for the analysis, and 0.05 level of significance was set as the value of alpha. A total of one hundred and fifty (150) questionnaires distributed to Accountants in selected companies and in the ministry of Environment Yobe State, and 123 responses were collected for the study. Eighty three (83) responses were returned from companies, while forty (40) were returned from ministry of environment.

Data Presentation and Analysis

The analysis of responses is presented in the following tables:

Table 1: Yobe state * Responses from the state Cross tabulation

			Responses from the state			
			Yes	No	Dont know	Total
Yobe state	Companies	Count	10	70	3	83
		% within Yobe state	12.0%	84.3%	3.6%	100.0%
	Ministry	Count	5	33	2	40
		% within Yobe state	12.5%	82.5%	5.0%	100.0%
Total	Count		15	103	5	123
	% within Yobe state		12.2%	83.7%	4.1%	100.0%

Source: Author's Data Analysis (2019)

Table 1 represent the responses collected from the sample population. It revealed that, 83 responses were collected from companies of which 10 were 'Yes', 70 'No' and 3 'Don't Know' representing 12.0%, 84.3%, and 3.6% respectively. The responses from Ministry were 40 out of which 5 were 'Yes', 33 'No' and 2 'Don't know', representing 12.5%, 82.5%, and 5.0% respectively. The total responses were 123 out of which 15 were 'Yes', 103 'No' and 5 'Don't know', representing 12.2%, 83.7%, and 4.1% respectively. After more than two decades of environmental accounting (2019), companies in Yobe State are not practicing it. This is evidenced from the response from Table 1. It is either they are unaware of this accounting system, not environment friendly or there is the need to make it mandatory on companies to start practicing. This will assist both the companies and the host communities.

Table 2: Yobe state * Responses from the state Crosstabulation

			Responses from the state			
			Yes	No	Dont know	Total
Yobe state	Companies	Count	81	1	1	83
		% within Yobe state	97.6%	1.2%	1.2%	100.0%
	Ministry	Count	40	0	0	40
		% within Yobe state	100.0%	.0%	.0%	100.0%
Total	Count		121	1	1	123
	% within Yobe state		98.4%	.8%	.8%	100.0%

Source: Researcher's Data Analysis (2019).

Table 2 represent the responses collected from the sample population. It revealed that, 83 responses were collected from companies of which 81 responded positively to the questionnaire with yes while 1 each for No and I Dont Know.', representing 97.6%, 1.2%, and 1.2% respectively. The responses collected from Ministry were 40 out of which 40 were 'Yes' and zero for 'No' and 'Don't know', representing 100% Yes. The total responses were 123 out of which 121 were 'Yes', 1 'No' and 1 'Don't know' representing 98.4%, 0.8% and 0.8% respectively. This indicates that companies in Yobe State are not environmental friendly and are relegating their corporate social responsibility.

Hypothesis 1

- (i) H_{01} environmental accounting practice is not carried out by companies in Yobe State

Table 3: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.143 ^a	2	.931

Source: Author's Data Analysis(2019)

Table 3 represent chi-square tests. The result of the test revealed $p = 0.931$ significance value which is above 0.05 significance value of set for alpha. The hypothesis one which says 'Companies in Yobe State do not practice environmental accounting' was therefore, accepted. It is concluded that companies in Yobe state do not carry out environmental accounting practice.

Hypothesis 2

H_{02} Environmental accounting practice has no effect on companies and environmental conditions.

Table 4: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.980 ^a	2	.613

Source: Author's Data Analysis(2019)

Table 4 represent chi-square tests. The result of the test revealed $p = 0.613$ significance value which is above 0.05 significance value of set for alpha. The hypothesis two which says that 'Environmental accounting practice has no impact on companies and environmental conditions' was therefore, accepted. It is concluded that Environmental accounting practice has no impact on companies and environmental condition in Yobe state. This also confirmed the result of hypothesis one, it was concluded that companies are not practicing environmental accounting. Hence proving that it has no impact on either the companies or the host communities.

Conclusion

In conclusion, it can be understood from the analysis that companies in Yobe State do not practice environmental accounting and unless they start practicing the concept, effective environmental management cannot be achieved. Unlike Financial reporting, it is also a fact that there is no regulation on environmental accounting. The study therefore, provides the following recommendations for the attainment of its objectives.

Recommendations

- i. Environmental awareness: Almost all the companies studied claimed that their activities had no significant effect on the environment and therefore there is no need taking into consideration environmental issues in their books of account. That proves the level of negligence of companies on the effect of their activities on environment. Government therefore, should embark on advocacy programme to educate the companies and the general public on environmental issues. This can be done through various media campaigns, example TV stations, radio and newspapers. These awareness need staff training: Therefore, management should try as much as possible to send their staff training on environmental accounting issues so as to enjoy the benefit of: cost saving, burst sales, improved support from shareholders and promote cordial relations with environment and customers. Thus fulfilling their environmental responsibility.
- ii. Government pressure: One of the most prominent factors in developing economy that is able to drive companies for environmental accounting today is the government. The government of Yobe State should therefore enforce a mandatory environmental reporting on companies operating in the state as part of their corporate responsibility.

References

- Baily, (2019) "An introduction to environmental accounting as a business management tool". Journal of USA environmental protection agency. 2 (5) ,39-59
- Becks, D. A. (2019) "environmental accounting in USA". Journal of USA Environmental Protection Agency. (2) 5 pp.5-15.
- Dauda I. A. and Suleiman B. A. (2018), *Developments in Accounting Education and Research: the Environmental Accounting - an insight*, African Journal of Accounting and Financial Research Volume 1, Issue 1, (19-32)
- Dibia and Onwuchekwa (2015), *Determinants of Environmental Disclosures in Nigeria: A Case Study of Oil and Gas Companies*, International Journal of Finance and Accounting 2015, 4(3): 145-152 DOI
- Emeakponuzo and Udih, (2015), *Environmental Accounting Practices by Corporate Firms in Emerging Economies: Empirical Evidence from Nigeria*, Advances in Research 3(2): 209-220, 2015, Article no.AIR.2015.017 ISSN: 2348-0394 SCIENCEDOMAIN international
- Eze, Nweze and Enekwe, (2016) *The Effects of Environmental Accounting on a Developing Nation: Nigerian Experience*, European Journal of Accounting, Auditing and Finance Research 4(1), 17-27, January 2016
- Fitriani, A. (2013) *Pengaruh Environmental Performance and Environmental Costs of Financial Performance in BUMN*, Jurnal Manajemi 1(1).
- Gholami , O., Parvizi , S., TamriNeia, Nemati, M., Abgineh, A., S., Emmami, M. (2012), *Social Responsibility Accounting: From Theory to Practice*, Journal of Basic and Applied Scientific Research, 2(10), 10111-10117.
- Chung, R. K., "Prospects for Environmental Sustainability in Asia the Pasific", in Pursuing Green Growth in Asia and the Pasific, Cengage Learning Asia Pte Ltd, 2010
- Gray, R., Owen, D., Adams, C. (1996), *Accounting and Accountability*, Prentice Hall Europe, Harlow, London.
- Hilmi (2016), *Effect of Social and Environmental Performance Financial Performance of the Company*, European Centre for Research Training and Development UK, 4(9), 30-59,
- Indrawan, DC. (2011) *Influence of Corporate Social Responsibility Performance against Company. Essay*. Semarang: Diponegoro University Faculty of Economics.
- Jerry, Teru and Musa (2015), *Environmental Accounting Disclosure Practice of Nigerian Quoted Firms: A Case Study of Some Selected Quoted Consumer Goods Companies*, Research Journal of Finance and Accounting www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) 6(22)
- Jones, M. J. (2010). *Accounting for the Environment: Towards a Theoretical Perspective for Environmental Accounting and Reporting*, Accounting Forum, 3(4), 123-138.
- Okafor, T. G. (2018), *Environmental Costs Accounting and Reporting on Firm Financial Performance: A Survey of Quoted Nigerian Oil Companies*, International Journal of Finance and Accounting, 7(1): 1-6
- Oladoye, J (2019) "Resource and management accounting experience from Nigeria A journal of federal office of statistics Lagos. 5(4) , 66-90

Pramanik, A.K., Shil, N.Ch., Das, B. (2008), *Corporate Environmental Reporting: An Emerging Issue in the Corporate World*, International Journal of Business and Management, 3 (12), 146-154.

Taylor, D.W., Sulaiman, M, and Sheahan, M (2001). 'Auditing of Environmental management systems: a legitimacy theory perspective', managerial Auditing Journal, 7(4)11-422

Yuliarinia, S., Othmanb, Z. and Ismaila, K. N. I. (2017), *Environmental accounting practices: A Regulatory and internal management perspective*, Journal of Economic & Financial Studies, 05(03), 01-11