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IMPACT OF ENVIRONMENT ACCOUNTING ON FINANCIAL PERFORMANCE OF SELECTED QUOTED COMPANIES

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Abstract

Most oil and gas quoted companies in Nigeria have often given insufficient attention to the communities where they operate, this is usually because of the need to regularly increase their profit maximization strategy. This study focuses on the impact of Environmental accounting on financial performance of selected companies in Nigeria. It is based on primary and secondary data. The primary data were obtained from questionnaire distributed to the selected oil and gas companies while the secondary data were obtained from annual report of the companies considered. The study usedvariables such as environment accounting and financial performance which were represented by questions relating to environment cost in the questionnaire and profit after tax from annual report of the selected quoted companies. These variables were analysed using Linear regression analysis and the result of the analyses shows that there is significant relationship between environmental disclosure and return on equity of the selected quoted oil and gas companies, because the (P-value=0.03 < F statistic value=3.514<0.05), this implies that the alternate hypothesis should be accepted while the null hypothesis will be rejected. Therefore, as a result of this finding, the study concluded that oil and gas producing companies should give preference to their environment so as to improve their future performance and profitability of their operations..

Keywords: Environmental accounting, performance, profit after tax, environmental cost, profit maximization.

1.1 Introduction

In the recent times there has been an increased awareness of the interaction between firms and environment in which they operate, this enlightenment has been sharpened by concerns about resources depletion, resources scarcity, environmental degradation and the activities of these firms that lead to the depletion of the ozone layer and thereby causing an imbalance in the environmental system (Adedran and Alade, 2013). The increasing concern about environmental degradation, resources depletion and the sustainability of economic activity have made the development of Environmental accounting and reporting an area of significant interest in Nigeria.

The awareness about state of environment is not a new phenomenon among various groups of stakeholders (Johnson, 2005). There are a lot of researches relating to environment accounting because, the demand for companies to apply environment accounting is now considered very important in order to save the world and enhance the organization performance. (Nilandri, Pattanayak, and Mitali,2008),

Furthermore, according to (Filbeck and Gorman, 2004), environmental accounting involves pollution prevention and continuous re-evaluation of firms' production processes which often creates opportunities for firms to innovate by modifying their production "strategically", and by recycling by-products that would otherwise be discharged into the natural environment. But, sometimes, this innovation may translate into a competitive advantage for a firm which by increasing the public image of the firm (Porter and van der Linde, 1995).

Also, a major problem of most researches relating to environmental accounting is that there are no agreed rules or standards for recognition, measurement and disclosure of environmental information either within the same industry or across industries (Kazenski, 2015). Most importantly, there are no rules for consolidating environmental information for an enterprise or for a group of enterprises so that it can be used together and in line with the enterprise's financial items. An effective and efficient environmental accounting policy is reached by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts. The link between an environmental and a financial variable is achieved by measuring the environmental performance of an enterprise with respect to its financial performance. Environmental conscious manager can increase it disclosures on environmental information by decreasing environmental impact while increasing the value added by the enterprise. Such enterprise use fewer resources andthey cause fewer emissions to soil, water and air while producing the same output as their competitors. The higher productivity leads to an increase in the operating margin due to lower costs. Moreover in many cases it also leads to higher sales due to an enhanced value of the products to the consumer or due to an improved public image. In addition, the risk of environmental liability decreases, resulting in lower price of risk taking and contingencies.

1.2 Statement of the problem

In recent time, oil and gas companies in Nigeria have been known to cause many environmental problems in the locations where they operate, majorly because of their ever increasing strategy, to ensure profit maximization, and adoption of various advanced oil exploration method in their operation. It is very sad, that inspite of the great benefit accruing to these oil and gas industries quarterly and annually, most of these petroleum companies, still believe that any expenses incurred on environmental problems will often result in additional cost to them in the short term, which may also decrease their effectiveness and efficiency in the long term, but, according to Hasan & Hakan (2012) additional cost incurred on environmental cost, will often lead to significant cost minimization in medium and long term which may even bring about additional income if done properly. Therefore, the problem of this study is to consider why most oil and gas producing companies are still not fully environmental friendly, especially in the communities where they operate, despite the fact that it is possible for this initiative to improve the organization image and also lead to drastic minimization of cost in the medium and long term.

1.3 Research Question

What effect does environmental disclosure has on return on equity of the selected quoted oil and gas companies in Nigeria.

1.4 Research Objectives

The main objectives of this research is to examine the impact of Environmental Accounting on performance of selected organization while the specific objective is to

- Determine if there is any relationship between Environmental disclosure and return on equity of the selected quoted oil and gas companies in Nigeria.

Research Hypothesis

Ho_1: There is no relationship between environmental disclosure and return on equityof the selected quoted oil and gas companies in Nigeria.

2.0 Literature Review

2.1 Conceptual Framework

2.1.1 Concept of Environmental Accounting

Environmental accounting is a system that attempts to make the best possible quantitative assessment (in terms of either monetary or environment and set in place intervention. The company further articulates its commitment in environmental management to its stakeholders through an Environmental Policy Statement, which is also in agreement with its vision and mission statements. (Magara, Aming'a, and Momanyi, 2015).

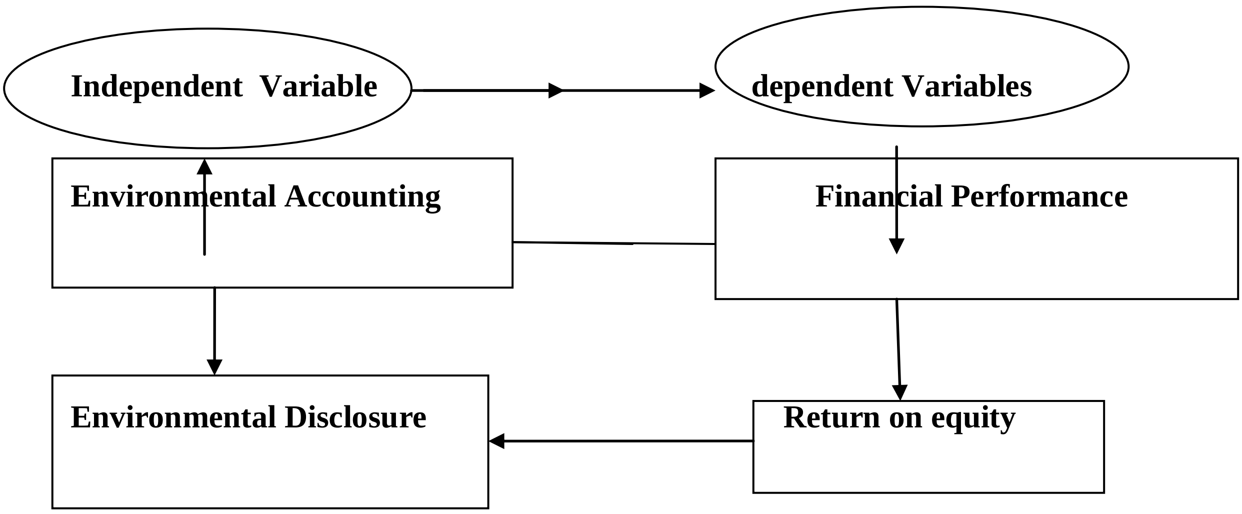
Historically, most environmental degradations and emissions are anthropogenic, an advent traceable to the industrial revolution of late 18th century where economic activities in many communities moved from agriculture to manufacturing (Beredugo, & Mefor, Ikechukwu, 2012).Production shifted from its traditional locations in the home and the small workshop to factories. The overall amount of goods and services produced expanded dramatically. New groups of investors, businesspeople, and managers took financial risks and reaped great rewards. In the long run, one can boldly say, that the industrial revolution has brought immence economic improvement for most people in the industrialized societies, Infact, many now enjoy greater prosperity and improved health. There have also been drastic costs reduction, however, some negative effect on the societies such as; factory pollutants and greater degradation of land, which have harmed the natural environment(Mastrandrea and Schneider, 2008). In particular, the application of machinery and science to agriculture has led to greater land degradation and, therefore, extensive loss of habitat for animals and plants. These factors, in turn, have caused many species to become extinct or endangered. Indeed, the use of natural resources including energy is indispensable to economic development, (Akinbamiand Adegbulugbe, 1998), and not devoid of environmental consequences as traceable to the environmental degradation and atmospheric pollution experienced in Nigeria. Yet, Nigeria as a developing country must continueto advance economically and this requires increased exploitation of natural resources.

2.1.2 Concept of Financial Performance

Financial Performance in the world of finance, financial performance is measured to give the account of stewardship bythe management team to the shareholders. The key aspect of this involves measuring the profitability, market value and growth prospect ofa company. Accounting-based measures examines the nature of the relationship between some indicator of the social performance(reputation, revelation of social information, environmental behavior etc.), with the company's FP obtained from the accounting information such as the historical audited financial statements of the respective companies.(Magara, Aming'a, and Momanyi, 2015).

Conceptual Framework Diagram

Fig. 2.1 Relationship between Dependent and Independent Variables.



Source: Diagram Conceptualized From the Literature review

2.2 Theoretical Framework

1.2 Legitimacy Theory

According to the legitimacy theory, a company's performance is legitimate when it is judged to befair and worthy of support, that is, when it is socially accepted. Legitimacy gaps arise when societal expectations of the firm's behavior differ from societal perceptions of its behaviour. A process of legitimating may be engaged in by a company either to gain or to extend legitimacy, to maintain its level of current legitimacy, or to repair or to defend its lost or threatened legitimacy (O'Donovan2002;Deegan, 2002)argues that where managers perceive that organization's operations do not commensurate with the social contract then,pursuant to legitimacy theory, remedial strategies are predicted. Because the theory is based on perceptions, any remedial strategies implemented by managers, to have effect on external parties, must be accompanied by disclosure.

2.2.2 Stakeholder Theory

Freeman and Reed (1983) have identified stakeholders as "the groups who have an interest in the actions of the corporation. In a follow up study, Freeman (1984) revisited stakeholder theory and redefined stakeholders as any individual or group who has an interest in the firm because he (or she) can affect or is affect by the firms activities. Carroll (1999) has defined stakeholders as any individual or group who can affect or is affected by the actions, decisions, policies, practices, or goal of the organization. Stakeholders can be identified by the legitimacy of their claims which is substantiated by a relationship of exchange between themselves and the organization, and hence stakeholders include stockholders, creditors, managers, employees, customers, suppliers, local communities and the general public. Stakeholder theory suggest than an organization will respond to the concerns and expectations of powerful stakeholders and some of the response will be in the form of strategic disclosures Stakeholders theory provides rich insights into the factors that motivate managerial behaviour in relation to the social and environmental disclosure practices of organizations. Previous social and environmental accounting research which utilized these theories indicate that organizations respond to the expectations of stakeholders groups specifically and generally to those of the broader community in which they operate, through the provision of social and environmental information within annual reports.

2.3 Empirical Framework

Identifying environmental costs and related financial opportunities is a tangible way of gaining the attention of upper management by linking environmental responsibilities with costs (Ann & Richard, 1998). In 1998, the (USEPA, 2012) argued that thedefinition of environmental costs depended on how a company intends to use the information, for example in capital budgeting or product design. One should recognize that environmental costs are not a separate type of costs; rather they are part of money flowing throughout a corporation (USEPA, 2012).Management accounting techniques such as performance measurement,operational budgeting, costing or pricing are used for the transformation, all aspects of producing environmental information are positive for the company (Paul, Kleindorfer, Eli & Snir.2000).According to (ACCA,2012),there are two main vehicles that companies use to publish information about the ways in which they interact with the natural environment: the published annual report (which includes the financial statements, and a separate environmental report (either as a paper document or simply posted on the company website.

Gamble, Hsu, Kite and Radtke (1995) investigated the quality of environmental reporting practices and annual reports of 234 companies in twelve industries in the United States, between 1986 and 1991. An instrument was designed to measure the content of environmental disclosures, and descriptive reporting codes were used, based on the manner in which the sample firms disclosed environmental information. Companies in the sample were from industries thought to have the greatest potential for environmental impact; oil and gas chemicals, plastics, soap, detergent and toilet preparations, perfume, petroleum refining, steel works and blast furnaces and hazardous waste management. The main findings were that certain industries, for example petroleum refining, hazardous waste management and steel manufacturing were judged to have provided the highest quality of disclosures in annual reports.

Several studies used Regression Analysis to investigate the relationship between environmental accounting and financial performance among them include;.Konar and Cohen (2001) who establishes that a significant positive effect exist between of good environmental performance, as measured by low toxicemissions, on firms' intangible asset values. Similarly, Austin, David, Anna Alberini, and Julio Videras. (1999) demonstrate that goodenvironmental performance, as captured by low toxic emissions and hazardous waste correctiveactions, positively affect financial rates of return. Moreover, Hart and Ahuja (1996) show thatemission reductions prompt better financial performance, based on accounting-based measures. In the same vein, Filbeck and Gorman (2004) also used regression to find out that there is positive relationship between financial and environmentalperformance; to demonstrate this point, they regress three-year holding period returns againstenvironmental penalty magnitudes.

2.4 Methodology

The study is based on a survey and ex-post facto research approach because it involves the use ofquestionnaire and past data to explain the behavior of the dependent and independent variable. The data obtained include profit after tax and Environmental Cost relating to Six (6) selected oil and gas companies. The companies were selected using purposive sampling method and the selected companies include MRS Oil, Mobil Oil, Capital Oil, Oando, Total Oil, Conoil Oil. The study covered the period from 2009 -2013. Furthermore, secondary data used for the study were obtained from the annual report of selected quoted companies and the data obtained were analyzed using multiple regression analysis in SPSS (Statistical Package for social Sciences)

2.5 Model Specification

Y = f(X) ---(1)

Where Y = Independent Variable –Environmental Accounting represented by Environmental disclosure

X = dependent Variable Financial Performance represented by return on equity

The multiple linear regression model for this study is defined as:

$Y= \beta_0 + \beta_1 X_1 + e$ --- (1)

$ROE= \beta_0 + \beta_1 ENVDIS + e$ --- (2)

Where: β_0 = Constant

ROE= Return on Equity.

ENVDIS= Environmental Disclosure.

β_1 = Regression Coefficient

e = error term

2.6 Data Analysis and Interpretation.

Decision rule: If the F-Statistic value is greater than the P-value obtained by SPSS (i.e. F-value > P-value/Sig. Value), then we accept the alternate hypothesis, But, if otherwise, (i.e. F-statistic < P-value/Sig. Value) then, we rejectthe Null hypothesis.

Hypothesis One

Ho_1: There is no relationship between Environmental cost and performance of selected quoted companies.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.891[a]	.794	.112	133.12063	1.441

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	58.539	1	58.539	3.514	.003[a]
Residual	799.668	48	16.660		
Total	858.207	49			

Regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.539	.791		1.946	.004
	ROE	8.619E-8	.000	.261	1.875	.003

The Statistical analysis above reveal the Pearson correlation result ‘’R’’ is +0.891 and this implies that there is significance positive relationship between environmental disclosure and this result was also confirmed by the result of the R Square (i.e. 0.794) which means the independent variable account for 79.4% of the dependent variable while only 20% can be accounted for by other factors outside the model. Furthermore, the statistical result shows that the F-Statistic value(i.e.3.514) is greater than P-value/Sig Value(i.e.0.003) and both values(i.e. F-statistic value and the P-value/Sig value) shows a result which are lower than the benchmark significance value of 5% specified in SPSS statistical software for this analysis. This also establishes that environmental disclosure has significant positively relationship with return on equity of the selected companies considered in these research work.

2.7 Discussion of finding.

The finding of this studyshows that there is significant relationship between environmental accounting disclosure and return on equity of the selected quoted companies. This is because the result of the regression analysis shows that the F-Statistic value(i.e.3.514) is greater than P-value/Sig Value(i.e.0.003) Hence the Null Hypothesis was rejected while the alternate hypothesis will be accepted., which implies that environmental accounting represented with environmental disclosure and financial performance proxy with return on equity have direct relationship with each other. This is in agreement with the findings of Austin, David, Anna Alberini, and Julio Videras (1999) who used regression analysis to establish that environmental performance has significant relationship with financial performance of firms.

2.8 Conclusion and Recommendation

This study concludes that there is direct influence between environmental accounting and financial performance of the selected oil and gas companies in Nigeria, this is because the P value/Sig value obtained (0.003) is lower than the benchmark value of 5% specified in SPSS for this analysis. This indicates that environmental accounting measureshave a strong impact on thefinancial performance of the selected oil and gas firms in Nigeria. Thus, companies management should take their responsibility of supportingthe environment were they operate, very seriously by decreasing their negative environmental impacts through the implementation of environmental policies, strategies and operations. Also quoted companies should have a standard format for present environmental information in their financial statement, so that every stakeholders can comprehend the value the companies are providing for the environment were they operate.

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