

ENVIRONMENTAL DISCLOSURES AND CORPORATE PERFORMANCE IN QUOTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT: *The study ascertains the relationship between environmental disclosures and firm performance in quoted oil and gas companies in Nigeria. The independent variables are environmental pollution and community (human factors), and dependent variable is return on equity. The data were obtained from the Bonn agreement and spills incident report. Data were analysed using the ordinary least square multiple regression. The outcome shown that both environmental pollution and human factors have insignificant relationship with returns on equity because both had probability values of 0.9116 and 0.0954, far greater than 0.05 level of significance. From the findings, the researcher concluded that both environmental pollution and human factors have insignificant relationship with oil and gas companies returns on equity, and this could be as a result of insufficient allocation of income to environmental pollution and human factors which makes the oil and gas companies return on equity remain intact, and unabated. The study, therefore, recommends that the oil and gas companies should carry out more activities that demonstrate greater commitment to corporate social responsibility, and the agencies that regulate the oil and gas companies operations should put in place a workable policy that will encourage and compel oil and gas companies to allocate more resources to reducing hazards on the environment of the hosting communities.*

Keywords: environmental pollution, human factors, returns on equity

INTRODUCTION

Environmental disclosures refer to the contents of environmental reports, or it is the process of conveying information to the consultant participants about the impacts of organizations' performances on the environment. The reports accommodates information

required by the consultant participants on company's financial performance, especially, in the areas of stock-market returns(returns on equity).This type of accounting empowers entities to prepare financial reports for investors, lenders, creditors and other persons concerned, and it is also the promulgation of environmental performance by any organization to its participants. Investors high demanding of environmental disclosures or reports are alarming because the timely, reliable, congruous and equipotential environmental reports are relevant to this investment decisions. Due to the prospects from investors propelled the corporations in the oil and gas industry to invest more wherewithals on effectuating environmental reports in order to satisfy the need of the investors. The inceptive environmental reports were broadcasted at the end of 1980s and it became widespread among the multi-national companies in oil and gas industry which is the reason for enhancing sustainability reporting in relation to environmental issues (Daub, 2007).

Environmental, Social and Governance (ESG) reporting stands for by various creators, including, but not kept within certain limits to corporate social disclosures (CSD),corporate environmental reporting (CER), triple bottom line(TBL) reporting, corporate social responsibility disclosures (CSR) and corporate sustainability (CS) reporting. The convention of determination, disclosing, and being decipherable to internal and consultant participants for oil and gas companies' financial performance in environmental, social and governance disclosures are towards sustainable development. These environmental disclosures are very blatant for investors to perform financial analysis and make useful investment decisions. The environmental and social disclosures includes the evaluation of oil and gas companies' exudations, use of resources, environment and natural resources, labour and human right policies, health and safety, supply chain management, product responsibility and corruption, and community investments (Buniamin & Ahmed, 2015).

Investors increasingly see the importance of environmental, social and governance disclosures in relation to companies' operational capabilities, efficiencies and its management. The environmental disclosures can accommodate relevant additional facts to support the traditional financial facts on investment analysis and affect the long- term value of a company's security (stock-market). Environmental disclosures are measures to achieve limpidity about the respective performance of a company, and as a means of discourse to participants, including shareholders and investors, employers clients and committees which support such reports as a beneficiary instruments for both operating firm and participants, and are clearly indicators of the importance of environmental point in question in a firm (Weber, 2013).

Corporate financial performance is the key for sustaining the growth and survival of corporate entities including oil and gas firms. In a nebulous sense, financial performance means the degree to which firms' policies contribute to firm's ability to compete effectively. Environmental and social reporting accommodates a strategic framework for achieving this aggregate reconsideration of corporate performance. Deegan and Rankling (1996) argue that corporate environmental reporting refers to the way and manner by which a company acquaints its stakeholders of the environmental effects of its activities. The increasing demand for firms' financial performance is for evaluating firms in the oil and gas industry.

Environmental and social reporting provides a strategic framework for achieving this holistic re-appraisal of corporate performance. The rising demand for firms to be socially responsible seems to have experienced considerable perceptual divergences, especially, within the context of shareholders argument perspective is that the only responsibility of

managers is to serve the interest of shareholders in the best possible medium applying corporate resources to increase the wealth of the shareholders by seeking profits in contrast, the shareholders perspective suggests that besides shareholders, other groups or constituents are affected by a company's activity (such as employees or the local community) and have to be considered in managers' decisions, possibly equally with shareholders. By reporting environmental information, a firm addresses the information needs of stakeholders and provides a basis for dialogue between the firm and its shareholders (Mgbame, 2012).

An equity investor who holds common stocks in oil and gas industry has no guarantee that he will realize his money back. As a part owner of a firm, his fate is tied to the fortunes of the firm. As a residual owner of the firm, he receives dividend only when claims of bonds and preference shareholders have been settled. The receipt of such dividends depends on the profitability of the entity. Therefore, return on equity is very important for the investor. This paper is investigates the relation to environmental disclosures and financial outcomes of oil firms in Nigeria.

Objectives of Study

The general objective of the study is to ascertain the relationship between environmental disclosures and return on equity of oil and gas industry. The specific objectives are spelt out below:

- To determine the effect of environmental pollution of oil and gas industry return on equity in Nigeria.
- To ascertain the effect of community-human factors on return on equity in Nigeria.

Research Hypotheses

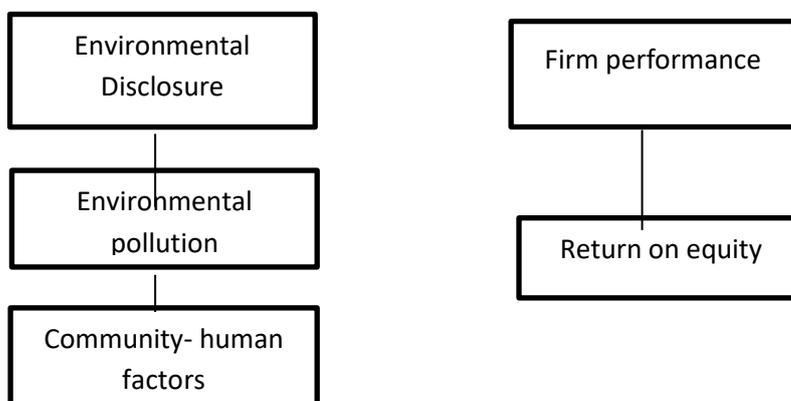
Ho₁: There is no significant relationship between environmental pollution return on equity for oil and gas firms in Nigeria.

Ho₂: Communities-human factors have no significant effect on oil and gas firms' return on equity.

LITERATURE REVIEW

Conceptual Framework

Conceptual Framework of Environmental Disclosures and return on equity of oil firms



The conceptual framework shows the key variables in the study.

Anukam (1997), stated that suspended sediments in water courses lead to increase water treatment costs incurred by water authorities. The industries responsible for water pollution in Nigeria include petroleum, mining, wood, pulp pharmaceuticals, plastic, iron

and steel, brewing, distillery and fermentation. Actually, petroleum oil spillages endanger local sources of water supply and fresh water living resources in Nigeria threaten to place the health of about 40 million people at risk, and would cost in excess of ten (10) billion Dollars a year to correct, if the upper surface and surface contamination goes unchecked.

Anago (2002) stated that environmental pollution and degradation attendant upon oil exploration operators in Niger Delta region in the southern Nigeria have resulted to political, social, health, economic insecurity and other development problems of national international dimensions. This region hosts bulk of Nigeria hydrocarbon reserves, and therefore, suffers high levels of water, air and thermal pollution.

EMPIRICAL REVIEW

Radtke (1995) investigated the essence of environmental reporting practices from annual reports of 234 companies in twelve industries in the United States between 1986 and 1991. A mechanism was designed to portion the content of environmental disclosures. Descriptive reporting costs were used, based on the manner in which the sample firms disclosed environmental information. Companies in the sample were from environmental impacts, oil and gas chemicals, plastics, soap, detergent and toilet preparations, perfume, petroleum refining, steel works and blast furnaces and hazardous waste management firms. The predominant findings were that undisputable industries for example, petroleum refining, jeopardous worthless management and steel manufacturing were considered to have provided the highest quality of disclosures in annual reports.

THEORETICAL REVIEW

Consultant Participant Theory

Carrol (1999) has corroborated consultant participants as individual or group who can sadden or is saddened by the actions, policies, practices or goal of the organizations' consultant participants' claims which are corroborated by a relationship of exchange between themselves and organization. Decisions include stockholders, creditors, managers, employees, customers, suppliers, , local communities and the general public. Consultant participant theory suggests that an organization will retort to pattern and expectations of powerful consultants and some of the response will be in form of strategic disclosures. Consultant participants provide rich insight into the factors that motivate managerial behavior in relation to social and environmental disclosures practices of organizations.

METHODOLOGY

The study employed cross-sectional and time series research design. Research design is the arrangement or plan used as a guide to collecting and analyzing the data for study (Baridam, 1995). The population of the study is thirteen (13) quoted oil and gas firms in the Nigeria Stock exchange. According to Oputa (2010), sampling is a process of taking a small portion of population to represent the whole population. However, this research applied the judgmental sampling techniques in choosing the sample size of the study based on sample accessibility.

The study employed the secondary data. The researcher made use of Bonn Agreement spills incident report and Mobil Report on Return on Equity (2005-2016) to extract information from environment-pollution, communities-human factors and return on equity. Instrumentation depends on the factors considering the nature of the study. So far stated, the broadcasted Bonn Agreement Page 57 on incident reports and spills incident

reports, and Mobil Report on Return on Equity Compared Data were employed. This instrument has been validated by an auditor, as an expert, environmental consultant, accountant and oil and gas managers. The purpose was to determine what was meant to measure. The two categories employed at this level were the face and content validity. Considering the face validity, much commitment was made to ascertain that the researcher to the research instrument comprehends what the instrument stands for.

Joshua (2005) asserted that content of validity, test whether the instrument gauges all essential areas of the subject being studied. To achieve this, the researcher seeks for advice and a help of a professional experts in gauging the instrument. The instrument has been inspected by the internal and outside examiners of the oil and gas organizations, in this manner; it is at that point, dependable. The researcher employed stationarity test, ordinary least square multiple regression and granger causality for the analysis.

Unit root test: Unit root was used to determine the stationarity of time series data employed. This is to ensure that employment of the data will not lead to spurious estimates. The decision rule is to reject the null hypothesis if the ADF test statistic is absolutely greater than the corresponding Mackinnon's Critical Value at 5% level of significance.

Ordinary least squares multiple regression test: The ordinary least square multiple regression test the short-run estimates of the predictive regression equation. The t-statistic is expected to be less than 0.05 if the null hypothesis is to be rejected.

Granger causality test: Granger causality was employed to determine the cause and effect as well the direction of causality of the variables in the model

The model specification is given as:

Unit Root Test

$$\Delta ROE = \Delta B + \Delta bEP + \Delta bHF + \mu_1$$

Ordinary least square regression

$$ROE = a + \beta_1 EP + \beta_2 EP + \beta_2 HF + \mu_1$$

Granger Causality Test Results

$$Proe = pb + pbEP + pbHF + \mu_1$$

Where ROE = Return of Equity

EP = Environment Pollution

HF = Human Factor

$\beta_1, \beta_2,$ = Coefficient of independent variables

a = Constant intercept

μ = Error term

Data Presentation and Analysis

The data used for the work is presented below:

Table1. Environmental Pollution (EP) in numbers, Human Factors(HF) in numbers, Return on Equity (ROE) in Percentages 2005-2006.

YEARS	EP	HF	ROE
2005	257	129	28.6
2006	347	131	27.07
2007	319	140	24.92
2008	375	184	21.72

2009	177	237	12.75
2010	238	299	17.53
2011	206	467	22.04
2012	436	408	19.99
2013	240	232	16.31
2014	598	489	13.91
2015	438	315	2.13
2016	236	198	0.55

SOURCE: Bonn Agreement, Page 57, Mobil Report on Return on Equity Compared Data (2005-2016).

In order to be at the same right and ensure comparability, we transform the data by logging it. The data now change to:

YEARS	ROE	EP	HF
2005	3.353407	5.549076	4.859812
2006	3.298426	5.849325	4.875197
2007	3.215671	5.765191	4.941642
2008	3.078233	5.926926	5.214936
2009	2.545531	5.17615	5.46806
2010	2.863914	5.472271	5.700444
2011	3.092859	5.327876	6.146329
2012	2.995232	6.077642	6.011267
2013	2.791778	5.480639	5.641907
2014	2.632608	6.393591	6.192362
2015	0.756122	6.082219	5.752573
2016	0.59784	5.463832	5.288267

Source: Author's computation base on the data above.

A priori expectation: A positive significant effect is expected between the values of independent variables, such as EP, HF, Return on Equity (ROE).

Table 2: Stationarity (Unit Root) Test Results)

Different Variables	ADF Test Statistic	Mackinnon's Critical Values at			Order of Integration	Prob.
		1%	5%	10%		
DROE	-3.91531	-4.420595	-3.259808	-2.771129	1(2)	0.0199
DEP	-3.24204	-4.200056	-3.175352	-2.728985	1(0)	0.0450
DHF	-4.78339	-4.582648	-3.320969	-2.801384	1(2)	0.0079

Source: Extracts from E-Views 9 Output

Table 2: Presents the unit root stationary test results for the employed data. Generally, the absolute values of the ADF test statistic for all the employed study variables are higher compared to all their corresponding Mackinnon's critical values at 5%. In all, the study variables are integrated of order 1(0) and 1(2). As such, they are deemed fit for utilization in subsequent estimations.

Table 3: Ordinary least Square multiple regression

Dependent variable: DROE

Method: Least Squares

Date: 06/25/19 Time: 19:38

Sample: (adjusted): 2007 2016

Included observations: 10 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.092239	0.193198	-0.477432	0.6476
DEP	-0.043357	0.376589	-0.115132	0.9116
DHF	0.819909	0.425536	1.926768	0.0954
R-squared	0.364770	Mean dependent variable		-0.129898
Adjusted R- squared	0.183275	S.D. dependent variable		0.672113
S.E of regression	0.607408	Akaike info criterion		2.084091
Sum square residual	2.582607	Schwarz criterion		2.174867
Log likelihood	-7.420457	Hannan-Quinn criterion		1.984511
F-statistic	2.009812	Durbin-Watson statistic		2.295645
Prob (F-statistic)	0.204296			

Source: Extracts from E-view 9 Output

From table 3 EP and HF are the independent variables where as ROE is the dependent variable. The result shows that they are insignificant at 5 percent level of significance during the period of the study. The coefficient of determination (R^2) 0.364770 implies that the explanatory variables account for 36.48% of the variations in return on equity, while the remaining 63.52% of the variations is attributable to other variables not captured in the equation. F-Statistic measures the overall significance of the model. The F-statistic is 2.009812 and the probability of F-statistic is 0.204296. This is more than 0.05 power of test. This means that the combination of all the independent variables have no significant effect on return on equity. Durbin Watson is 2.295645 showing the absence of autocorrelation.

Table 4: Granger Causality Test Results

Pairwise Granger Causality Test

Date: 06/25/19 Time: 19:46

Sample: (adjusted): 2007 2016

Lags: 1

Null Hypothesis	Obs	F-Statistic	Prob.
DEP does not Granger Cause DROE	9	7.24401	0.0360
DROE does not Granger Cause DEP		2.98351	0.1349
DHF Does Not Granger Cause DROE	9	5.56173	0.0564
DROE des not Granger Cause DHF		2.17940	0.1903
DHF des not Granger Cause DEP	9	2.08231	0.1991
DEP des not Granger Cause		2.35451	0.1758

Source: Extracts from E-Views 9 Output

From table 4, there is a uni-directional relationship between EP and ROE, i.e EP granger cause ROE and ROE does not granger cause EP within the period of the study. HF does not granger cause ROE neither does ROE granger cause it within the period of the study.

Discussion of Findings

Based on the result of the analysis, the researcher finds that:

Environmental pollution disclosures have no significant effect on returns on equity of the oil and gas companies operating in the country. This means that the income that the oil

and gas companies generate as their returns on equity outweigh the expenses allocated to environmental pollution management.

The community/human factors have no significant effect on returns on equity of the oil and gas companies operating in the country. Thus, in spite, of all the pipeline vandalism, oil pilferage, community, clamour, and other mishaps suffered by the oil companies, they still remain unabated because their returns on equity are intact.

CONCLUSIONS

From the findings, the researcher hereby concludes that: Environmental pollution disclosures have no significant effect on return on equity of the oil and gas companies operating in the country. This means that the income that the oil and gas companies generate as their returns of equity outweighs the income for expenditures allocated to environmental pollution.

The disclosures on community/human factors have no significant effect on return on equity of the oil and gas companies operating in the country. No wonder inspite of all the pipeline vandalisations, oil pilferage, community clamour and other mishaps suffered by the oil and gas companies, they still remain unabated because their returns are still intact.

RECOMMENDATIONS

The researcher recommends the followings:

- a. Though the environmental pollution has no significant effect on the returns on equity of the oil and gas companies operating in countries, there is still need for them (oil companies) to perform their corporate social responsibilities more than before, especially, in the areas of cleaning of the environment, youth empowerment, employment for the host communities etc.
- b. The agencies in charge of regulating the oil and gas companies operations, should put in place a workable policy that will encourage and enforce the oil and gas companies allocate much resources to reduce the hazards on environment of the hosting communities.

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