

Environmental Cost and Corporate Performance: A Study of Listed Oil and Gas Companies in Nigeria.

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Abstract

The study focused on environmental reporting and corporate performance with particular reference to listed oil and gas companies in Nigeria. The study adopted the ex-post facto design and data was sourced from the published financial reports of 6 listed oil and gas companies out of the 12 quoted oil and gas companies. Ordinary least square was used in analyzing the data using Minitab 17. The findings revealed that environmental protection, development and safety cost has a negative but significant relationship with ROA. More also, environmental protection, development and safety cost showed a negative and insignificant relation with EPS. The study recommends that oil firms should provide comprehensive reports of their environmental involvement and also government and stakeholders should be concern and mandate compliance to standards regulating and mandating firms to report environmental accounting satisfactorily.

Keywords: Environmental, Corporate performance, EPDS, ROA, EPS

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Introduction

Industrialization and the continuous innovative path of man has great benefits to human life but not without a cost. The ever changing initiations and mode of production as well as the use of natural resources including energy has given birth to factory emissions and pollutants that are harmful to human environment. The increasing awareness and growing campaign by governments, agencies, non-governmental organizations and pressure groups is redirecting the focus of industries into being environmentally responsible. The experience of the Niger Delta region of Nigeria clearly mirrors the effect of business operations, methods and strategies on host communities and the society at large. In the words of Eradiri (2019) and I quote “You just need to take a tour to understand the magnitude of the environmental abuse”.

Rise for Bayelsa campaign reported that about 40 million litres of oil are spilled annually across the Niger Delta resulting in air, land and water contamination which create devastating effects on resident’s health and livelihood. The line of environmental reporting by Nigerian firms has not been well covered indicating that firms are not fully complying with the standards and rules requiring firms to report its environmental responsiveness. It can also be explained that the inputs of oil firms in environmental maintenance is not felt in the Niger Delta region. Okafor (2018) reports that the trend of environmental degradation is an indicating red flag for future concern.

Though the above regulations exist there is no guideline on environmental accounting for firms in Nigeria, accounting and reporting on environmental issues are wholly voluntary. The level of environmental cost accounting by oil and gas companies is still too far from being satisfactory or meeting international standard practices (Okafor, 2018).

Empirical Review

Table 1

| Author (Year) | Title | Methodology/Proxies measured | Findings/Recommendation |
|--|---|--|--|
| Falope, F.J., Offor, N.T &Ofurum, D.I (2019) | Environmental Cost Disclosure And Corporate Performance Of Quoted Construction Firms In Nigeria | Ex-post facto ROA Environmental pollution control cost Environmental protection cost Environmental cost resource recycling | The findings showed that environmental pollution prevention cost, environmental protection cost and environmental recycling disclosure have effects on return on assets of quoted construction firms in Nigeria. The study recommended among others that regular and continuous environmental evaluation will improve organizations sales, income and ensure that environmental situational needs are met. |

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|--|--|---|---|
| Ikpor, I.M. & Enuma, B.N. & Okezie, B.N. (2019) | Environmental Accounting and Sustainable Financial Performance: Evidence from the Nigerian Petroleum Industry | Ex-post facto Profitability EOPEX EOPEX EXAPEX | The finding suggested that environmental operating costs and environmental prevention costs have significant and negative effect on the performance of petroleum firms in Nigeria. However, we found important differences in the correlates of firm's capital expenditure on sustainable financial performance. The finding of this study therefore have important implications for policy. |
| Okafor, T.G. (2018) | Environmental Costs Accounting and Reporting on Firm Financial Performance: A Survey of Quoted Nigerian Oil Companies | Regression ROA Cost of environmental remediation and pollution control Cost of environmental laws compliance and penalty Donations and charitable contributions | The findings indicate that better environmental performance positively impact business value of an organization. Moreover, environmental accounting provides the organization an opportunity to reduce environmental and social costs and improve their performance. |
| Ifurueze, M.S.K., Etale, L.M. & Frank, B.P. (2013) | The Impact of Environmental Cost on Corporate Performance: A Study of Oil Companies in Niger Delta States of Nigeria | Multiple regression technique ROTAs Fines, penalties and compensation Waste management cost Community development cost Employee health and safety cost | The study revealed that sustainable business practices and corporate performance is significantly related. And sustainability may be a possible tool for corporate conflict resolution as evidenced in the reduction of fines, penalties and compensations paid to host communities of oil companies. Therefore, the researchers recommended that the management of oil companies in the Niger Delta States of Nigeria develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity and eventually improve corporate performance. |
| Oti, P.A., Effiong, S.A. & Tapang, A.T. (2012) | Environmental Costs and Its Implication on the Returns on Investment: An Evaluation of Selected Manufacturing Companies in Nigeria | Multiple regression ROI Fines, penalties and compensations Waste management Community development Employee health and safety | Findings from the empirical study disclose as insignificant difference between the return on investment of the environmentally responsible firm and those of environmentally irresponsible firms. Regression results revealed that investment in social and environmental responsibilities such as employee health and safety (EHS), waste management (WM) and community development (CD) are related to improved return on investment of the environmentally responsible firms. |

Previous literature reports varying results on the effect and relationship between environmental reporting and corporate performance. While some showed positive, others showed negative while others showed a mixed results. The paper focuses on investigating the relationship between environmental cost reporting and corporate performance.

Methodology

The study covers a period of five years from 2015-2019 using only secondary data. The data for analysis were sourced from published financial reports of quoted oil and gas companies listed in the Nigerian Stock Exchange. The reason for the choice of Nigerian oil sector is because of its involvement in industrial activities that have direct impact on the environment. Moreover, majority of firms in this sector are multinationals and have long been involved in the practice of environmental accounting (Okafor, 2018). The ex-post facto design was adopted for the study. Using two dependent variables return on assets (ROA) and Earnings per share (EPS) and a single independent variables; Environmental Protection and Safety Cost (EPSC), a model was formulated thus; [ROA=f(EPSC)].

The model uses a linear regression equation to test the hypothesis of the study.

$$ROA = \beta_0 + \beta_1 X_1 + e \dots\dots\dots 1$$

$$EPS = \beta_0 + \beta_1 X_1 + e \dots\dots\dots 2$$

Where:

ROA = Return on Asset

EPS = Earnings per share

β_0 = Intercept

β_1 = Coefficient of the independent variables X_1 = EPDSC (Represented by Total Cost of Environmental Protection, Development and Safety)
 e = Stochastic error term

Data Analysis

Table 2: OLS Regression result

| Variables | Coefficient | P-Value |
|--------------------|-------------|---------|
| Dependent: ROA | | |
| EPSC | -0.62 | 0.041 |
| Adjusted R-squared | .3861 | |

Source: Authors regression result (2020)

Bases on Table 2 above, which shows the regression value of the relationship between the explanatory variables on dependent variables (corporate performance). The adjusted R square of 38.61 indicate that 38.61% changes in the dependent variable ROA is affected the explanatory variable while the remaining 61.39% is caused by other determining variables that are not revealed by the study. The coefficient value -0.62 indicates a negative linear relationship. The p-value of the model is $0.041 < 0.05$. This implies that, the present study clearly shows that the selected variables are sufficiently enough to explained dependent variables (ROA). This finding align with the findings of (Ifurueze, Etale & Frank 2013; Ikpor, Enuma & Okezie 2019)

Table 3

| Variables | Coefficient | P-Value |
|----------------|-------------|---------|
| Dependent: EPS | | |
| EPSC | -0.30 | 0.365 |
| R-squared | .917 | |

Bases on Table 3 above, which shows the regression value of the relationship between the explanatory variables on dependent variables (corporate performance). The adjusted R square of 9.17 indicate that 9.17% changes in the dependent variable EPS is affected the explanatory variable while the remaining 90.83% is caused by other determining variables that are not revealed by the study. The coefficient value -0.30 indicates a negative linear relationship. The p-value of the model is $0.365 > 0.05$ explains a no significant relationship between the variable. This implies that, the present study clearly shows that the selected variable is not sufficient enough to explain the changes in EPS. This finding align with the findings of (Makori & Jagongo, 2013; Armad, Waseer & Ammara, 2018).

Empirical findings showed that environmentally responsible firms have improved corporate performance due to customer goodwill engineered by environmental responsiveness. The outcome of the result showed that expenditure on environmental protection, development and safety has a negative but significant relationship with return on asset (ROA) indicating that a unit change in EPDSc affects ROA (62%) negatively. EPDSC has a negative and insignificant effect on EPS as the coefficient (-0.30) and P-value $0.365 > 0.05$ showed a negative linear relationship. This means that a unit change in EPDSC does not significantly affect EPS of listed oil firms.

Conclusion/ Recommendation

Environmental responsiveness has a relationship with corporate performance in the long run, this is evident in the results of empirical findings and the study result. This implies that oil and gas firm's responsiveness to environmental issues in tackling degradation, gas flaying effect, oil spillage damages, environmental pollutions and GHG emissions can improve the performance of the firms. Visual reality of oil and gas firms in Nigeria show donations and charitable contributions which are commendable but do not have an environmental restoring impact on the host communities where this degradation and pollutions are experienced. This calls for more involvement of firms especially in the Niger Delta region that will improve the state of living of the citizens. The paper focused on environmental cost reporting and corporate performance with insight into annual expenditures of oil firms in Nigeria on environmental related responsibilities. The study recommends that oil firms should provide comprehensive reports of their environmental involvement and also government and stakeholders should be concern and mandate compliance to standards regulating and mandating firms to report environmental accounting satisfactorily.

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