

# Environmental Sustainability Accounting and the Performance of Oil & Gas Companies in Rivers State, Nigeria

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## ABSTRACT

This research paper seeks to establish Environmental sustainability Accounting and the performance of Oil & Gas Companies in Rivers State, Nigeria. To achieve the objective of the study, hypotheses were formulated, and a review of related literature was made. The hypotheses were tested using multiple regression analysis with the aid of E-View, using a 5% level of significance. Based on the findings of this study, we conclude that the disclosure of human resources disclosure and environmental sustainability disclosure significantly affect the financial performance of oil and gas companies in Rivers State. It was recommended among others that the government should put in place suitable legislation for all companies to make adequate disclosure of their activities to the Environment, and firms should formulate and implement environmentally friendly policies.

**KEYWORDS:** Human resources issues, environmental sustainability, Community disclosure

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## 1. INTRODUCTION

Modern business managers are constantly exposed to the dilemma of matching contributions to the development of the environment within which they operate from, and meeting the requirements of the small but powerful group as well as the shareholders (Singh, 2006). No doubt, there is an enormous flow of capital, goods and services across borders. This trend had placed businesses as global institutions or potential global institutions. Interestingly, governments around the world are appreciating the need to allow private sector be the driving force of any economy. This stand is to enable government perfect on one of its primary role, which is creating the enabling environment for business and society to interface fairly (Bateman and Snell, 2002). This is to say, governments around the world are continuing to withdraw from operating commercial business enterprises and private sector companies are increasingly under pressure to become alive to their responsibility in contributing to betterment of the society they live in, and not only for themselves (Nwachukwu, 2007). Corporations require the input

of natural resources to support the production process. It aims not only to meet human needs, but also to build and deliver benefits to the company. Benefits were not only in terms of finance, such as reaching an expected profit (Appah, 2010). Corporate profits were also obtained from non-financial terms, that is, when the company gets the positive values of the stakeholders of the company's attention to environmental and community relations. In achieving this goal, the company is always interacting with the environment so that it can be said that the environment contributes to the company and the company could not escape from the responsibility of the environment. The conventional view assumes that corporate profits can only be assessed in financial terms (Sutami, Anggraini & Zakania, 2011). According to Akpan (2013), the need to account for the environment and the economy in an integrated way arises because of the critical functions of the environment in economic performance and in the generation of human welfare. Corporate social responsibility is perhaps one of the most dynamic,

complex, and challenging issues in modern day business management.

The presentation of financial statement information by management only included financial accounting aspect of the entity. According to Rajapakse and Abeygunasekera (2006), the traditional approaches to accounting by corporate entities only focused on their economic operations, with their main activities affecting the economy through operations in the market. Currently however, and environmental and corporate social responsibility accounting has been added to corporate financial report for various reasons: a desire to create, maintain or repair the entity's societal legitimacy (Uwugbe & Olayinka, 2011); a responsibility of management complying with regulatory requirements and to legitimize various aspects of their respective organizations (Basamalah and Jermias 2005); to attract investment funds and to comply with borrowing requirements as well as meeting community expectations (Deegan & Blomquist, 2006); to gain competitive advantage and to be socially responsible, and to manage powerful stakeholder groups (Owusu & Frimpong, 2012). Organizational survival often depends on the natural environment and its accompanying resources and energy are indispensable for economic growth (Beredugo, Ihendinihu & Azubike, 2019). Bassey, Effiok and Eton (2013), maintains that in recent years, the adverse environmental effect of economic development has become a matter of great public concern all over the world. It has been argued that corporate social and environmental disclosure may not apply universally to all countries which are in various stages of economic development and with corporations having differing levels of awareness and attitudes towards corporate environmental disclosure. However as economies grow and outlook become more global, we are likely to see an increasing convergence in corporate social and environmental accounting practices (Hossain, Islam, & Andrew, 2006).

Environmental accounting is about understanding the impact of organisations on our society, the overarching context is sustainability: both sustainability of the organisation itself (the interrelation of the social, the environmental, the cultural and the finance) and sustainability of behaviour which contributes to a future for the people and the planet (Pearce 2001). The essence is accounting for what we do and listening to what others have to say so that future performance can be more effectively targeted at achieving the chosen objectives. It measures the environmental sustainability performance in order to achieve improvement as well as to report accurately on what

has been done. The unserious attitudes of several firms not taking environmental accounting into consideration make performance to fall below expectation. This is because environmental accounting helps the firm to record all environmental costs incurred by the business thereby finding ways of reducing the cost (environmental expenses) so that the business can increase profit. Also environmental accounting helps firms to disclose to the outside world their ability to be environmental friendly. According to Pramanik, Shil and Das (2007), some of the specific issues (problems) regarding the environmental accounting and reporting include: Identification of environmental cost and expenses, Capitalization of cost, Identification of environmental liabilities, Measurement of liabilities.

Companies are becoming more and more aware of CSR practice importance, consideration about environmental and sustainability impacts of businesses performance, consideration about continuous profitability and sustainable development. Sustainable development for businesses is congruent with sustainable environment, economic growth, and societal well-being. Consequently, long-term profitability and success lie down on the caring about natural environment and meeting societies. Porter and Kramer (2011) cited that companies continue to view value creation narrowly, optimizing short-term financial performance in a bubble while missing the most customers' needs and ignoring the broader influence that determine their longer-term success. Also Porter and Kramer (2011) argued about how companies overlook the well-being of their customers, the depletion of natural resources vital to their businesses, the viability of key suppliers, or the economic distress of the communities in which they produce and sell? Wide range of stakeholders asks businesses to perform in such a way to protect environment and give back to communities. Companies' performance and stakeholders' perception are intertwined. Practice of environmental sustainability accounting would alter stakeholders' perception and subsequently this alteration would impact on companies' financial performance. Revenue, net profit, return on asset, return on equity, etc. can represent the financial performance. Growth in any of financial indicators would increase share value. Consequently, practice of environmental and sustainability reporting would increase financial performance and ultimately increase share price (Khavah, Nikhagehani, Yousefu & Hague, 2012). The results of different studies measuring the relationship between corporate financial performance and corporate environmental disclosure show mixed results. Among these researchers found a positive

association between profitability and the extent of corporate environmental accounting (McWilliams & Siegel 2000; Basse, Effio & Eton 2013; Khavah, Nikhagehani, Yousefu & Hague, 2012; Hossain, Islam, & Andrew, 2006; Mahoney & Roberts 2007). Prior studies found that environmental and sustainability activities are only as in common reporting and tend to be self-laudatory (Mahoney & Roberts 2007). There is a gap in the studies concerning any impact of companies disclosing environmental and sustainability activities towards their financial performance. This issue is important because managers need to know whether their firms will have an economic advantage and receive a positive response from their long-term investment. It is therefore necessary to empirically investigate environmental and sustainability accounting and their effects on oil and gas companies performances in Rivers State, Nigeria. To this end, the following null hypotheses were tested:

H<sub>01</sub>: There is no significant relationship between human resources disclosures of environmental sustainability accounting and financial performance of oil & gas companies in Rivers State.

H<sub>02</sub>: There is no significant relationship between environmental sustainability disclosures and financial performance of oil & gas companies in Rivers State.

## 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Environmental accounting is required to fulfill a lot of demands from different stakeholders. However, for academic reason, the following basic objectives can be identified on the logical ground. Environmental accounting would aid the discharge of the organizations accountability and increase its environmental transparency, it helps 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. Because of the ethical investment movement, ethical investors require the companies to be environmentally friendly. Therefore, by upholding friendly image, companies may be successful in attracting fund from "green" individuals and groups. Environmental accounting consumerism movement launched by the environmental lobby groups encourages the consumers to purchase the environmentally friendly products i.e. green products. Companies, thus producing green products may take competitive marketing advantage by disclosing the same. By making environmental disclosure, companies may show their commitments towards

introduction and change and thus appear to be responsive to new factors. Companies engaged in environmentally unfriendly industries arose strong public emotion. There is a strong environmental lobby against these industries. Green reporting may be used to combat potentially negative public opinions. Beredugo and Mefor (2012) added that the primary way companies can contribute to solutions is to reduce carbon dioxide and other greenhouse gas emissions in their own operations and supply chains. Consequently, corporate climate reporting on carbon emissions has become a major focus, as disclosure prompts corporate responsibility – in this instance, GHG emissions reduction.

By cultivating the enlighten approach of environmental accounting, companies can also increase their image of being enlightened to the outside world and this, can be regarded as enlightened companies (Prakash, et al, 2007). In order to facilitate social accounting and reporting, Boumment (1973) in Appah (2011) identified five possible areas in which social accounting objectives may be found and each area of contribution of social activities may be measured and reported. These areas are: net income contribution; human resource contribution; public contribution; environment contribution; and product or service contribution.

Gray (2000) claims that there has been significant growth in environmental and social auditing and reporting since the 1990s. Possible explanation for this trend is not unconnected with business firms' desire to create, maintain or repair their societal legitimacy. Arguably, legitimacy theory is the more probable explanation for the increase in environmental disclosures since the early 1980s (O'Donovan, 2002). Other researchers that have agreed to the dominance of Legitimacy theory as a more profound explanation to corporate social and environmental reporting include (Hooghiemstra, 2000; Wilmshurst & Frost, 2000). Other theories that provide a sound theoretical foundation to substantiate the value of social and environmental accounting research and by extension their disclosure include Stakeholder theory (Roberts & Mahoney, 2004); Institutional theory (Cormier, Magnan & Velthoren, 2005) and Resource Dependence theory (Pfeffer & Salancik, 2003). These theories are consistent with that stated in Appah (2011) that social accounting theories are based on political economy of stakeholder, legitimacy and positive theories.

### 2.1. Environmental sustainability Accounting Reports in Nigeria

The environmental sustainability reporting or sometimes known as "green reporting" is one of the

voluntary social reporting included in the financial statements. At the beginning the issue of social and environmental reporting is somewhat neglected. The nature of accountants focus is dominated by traditional economic thinking, which tends not to take account of social and environmental impacts (Bassey, Effiok and Eton, 2013). In fact, the concern goes more towards cash flows, prices, profits and properly, ecological issues such as quality of air usage of sea and the pollution of rivers are intangible matters, which easily overlooked. In addition, the general views of social and environmental accountability are among the unfamiliar concerns.

Beredugo and Mefor (2012) shows that environmental **sustainability** 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. Investors are increasingly requiring that companies pursue environmental accounting strategies that reduce the damage caused to the environment while increasing or at least not decreasing shareholder value. The aim of environmentally sound management is to increase environmental report by reducing the environmental impact while increasing the value of an enterprise, and enhancing a sustainable work force.

Emphasis on social contract theory and quality of life theory as reported by Beredugo and Mefor (2012) holds the notions that sovereignty resided in the human resource which are similitude of the people for whom management of companies were trustees and that companies should be sanctioned if they failed to discharge their functions to the people (Katznelson, 2008). Ramanathan (1976) further explained the relationships of Social contract theories, viewing a company as an integral part of the society that the society supports and is expected to follow the law of that society. It is expected that they contribute to the society proportionately enough to what the society has given to them.

The corporate sustainability accounting are not only to safeguard the environment but to support human rights, eliminate child labor, adopt codes of ethics; display openness and transparency in relationships with employees, community groups and governmental organizations as well as promote diversity in the workplace and help communities solve their social problems (Burke, 2005). Through

sustainability reports, companies include the effect of the organization's activities on its workers as human resources that effectively contribute to achieving the organization's objectives Beredugo, Igbeng & Eze, 2013). Accordingly, it includes the activities that contribute to the improvement of the workers' conditions in general, such as the provision of free medical care and the means of occupational safety.

Ekpo, Okon and Beredugo (2019) also added that employee health and safety represent one of the most important corporate sustainability issues confronting organizations. This is particularly true for companies operating in an environment with weak regulatory infrastructure in an inherently hazardous industry. Occupational accidents lower employee productivity, undermines human capital development, diverts management attention, and could be symptomatic of poor management quality and lack of adequate internal management systems. The identification, measurement and disclosure of human resources aspect of sustainability accounting represents relaying of information on the sustainability impacts and ways of mitigating sustainability exposures which the companies encounters.

In addition, corporate sustainability also reemphasizes on achieve customer satisfaction and product safety for consumer (Sen & Bhattacharya, 2001); together with public benefits such as employment for the disabilities, contributions of health care facilities and other charitable donations. The overall aim is to contribute to the development and welfare of the society (Gamble & Jackson, 1996) and human resource development at large.

## 2.2. Environmental Accounting, and Corporate Performance

Junaina and Ahmad (2008) in Bassey, Effiok and Eton (2013) identified the extent of the relationship between environmental sustainability disclosure and corporate performance. Some of the performance indicators include: company size: financial leverage, profitability among others

A study by Trotman and Bradley (1981) in Bassey, Effiok and Eton (2013) has found a positive association between size and voluntary social responsibility disclosures. There are numerous explanations for such association. Firth (1979) in Bassey, Effiok and Eton (2013) suggests that firms, which are more visible in the "public eyes", are likely to voluntarily disclose information to enhance their corporate reputation. Watts and Zimmerman, 1986) in Bassey, Effiok and Eton (2013) suggest that larger firms would have higher political costs because the firms are more politically visible and may attract more resentment due to their perceived market power.

Leftwich, Watts and Zimmerman (1981) in Bassey, Effiok and Eton (2013) maintain that firm size is a comprehensive variable, which can proxy a number of cooperate attributes, such as competitive advantage, information production costs and political costs. Most of the studies found that company size does affect the level of disclosure of companies.

It is also argued that management will not disclose environmental sustainability information when the expected cost exceeds the benefit. A larger company usually has more resources available to cover the costs (Xiao et al., 2005). Company size is expected to be positively associated with the extent of environmental sustainability disclosures.

For financial Leverage, Myers (1977) in Bassey, Effiok and Eton (2013) show that political transfers of wealth, from bondholders to shareholders can take place in highly leveraged firms. Agency theory predicts that restrictive covenant may be written into debt contracts to protect firm's economic interests. Management may also voluntarily disclose information in financial report for monitoring purposes. Thus, agency theory predicts that level of voluntary disclosure increases as the leverage of firm grows. Leftwich (1981) suggest that the proportion of outside capital tends to be higher for larger firms as the potential benefits of voluntary disclosure increase with shareholder debt holder-manager conflicts. Moreover, companies with high leverage may disclose more, information to satisfy the needs of long-term creditors (Malone, fires and Jones, 1993) and to remove suspicions of debt holders regarding wealth transfer (Myers, 1979 in Bassey, Effiok and Eton (2013).

In relations to profitability, many studies have been conducted worldwide to investigate the relationship between financial performance and the extent of environmental disclosure. Profitability as well as corporate financial performance were used by a number of researchers as an affecting variable on the extent of environmental disclosures. The proponents argued that there are additional costs associated with the environmental disclosure and, the profitability of the reporting company is depressed (Hossain et al., 2006). The findings of different studies indicate mixed results. Several researchers found a positive association between profitability and the extent of environmental whereas the others found no association between profit measures of environmental disclosure.

### 2.3. Empirical review

The empirical study of environmental accounting and corporate financial performance started over three decades ago in western countries. There are basically

two types of empirical study of the relationship between CSR and financial performance. One set uses the event study methodology to gauges the short-run financial impact (abnormal returns) when firms engage in socially responsible or irresponsible acts (McWilliams and Siegel, 2000). The results of these studies have been mixed. For example, Wright and Ferris found a negative relationship; Posnikoff reported a positive relationship; and McWilliams and Siegel found no relationship between CSR and financial performance. Other studies are similarly inconsistent concerning the relationship between CSR and short-run financial returns (McWilliams and Siegel, 2001). The second set of studies examines the nature of the relationship between some measure of corporate social performance, CSP (a measure of CSR), and measures the long-term firm performance, using accounting or financial measures of profitability (e.g Mahoney and Roberts, 2007; McWilliams and Seigel, 2000; Simpson and Kohrer, 2002). The results from these studies have also been mixed. Aupperle et al. found no relationship between CSR and profitability, McGuire et al. found that prior performance was more closely related to CSR than subsequent performance, and Simpson and Kohrer; Waddock and Graves found a significant positive relationship.

According to Griffin and Mahon (1997) pioneering empiricists who explored the corporate social and financial performance link were often interested in a single dimension of social performance, such as environmental pollution. Further, Griffin and Mahon summarized the findings of the numerous articles they reviewed and concluded that no definitive consensus exists on the empirical corporate social and financial performance link, and that while a substantial number of studies found a negative relationship some of the studies have been inconclusive because they found both positive and negative relationships. However, most of the investigations found a positive link. McWilliams and Siegel (2001) tested the relationship between CSR and CFP with a regression model that used a dummy variable indicating the inclusion of a firm in the Domini 400 Social Index (DSI 400) as the measure of social performance. The DSI 400 is a portfolio of socially responsible companies developed by Kinder, Lydenberg, and Domini, Inc. Co. McWilliams and Siegel used an average of annual values for the period 1991-1996 for 524 large U.S corporations in a regression model that included a measure of financial performance as the dependent variable. Social performance, industry, and expenditure for research and development were independent variables. Their findings suggested that inclusion of the research and

development variables in the model caused the CSR variable to be insignificant, leading them to the conclusion that there may not be a CSR-CFP link if the regression model is properly specified.

Simpson and Kohers (2002) focused on a single industry. Their investigation was an extension of earlier research on the relationship between corporate social and financial performance. The special contribution of their study was the empirical analysis of sample companies from the banking industry. They used the Community Reinvestment Act (CRA) ratings as a social performance measure. The results solidly supported the hypothesis that the link between social and financial performance is positive. Furthermore, Moore and Robson (2002) also analyzed a single industry with a study of the social and financial performance of eight firms in the UK supermarket industry. These were based on the derivation of a 16-measure social performance index and a 4-measure financial performance index. Even though the number of firms was small there was only one statistically significant result.

Beredugo (2014) assessed the effect of environmental accounting and social responsibility on the earning capacity of selected manufacturing companies in Nigerian. The study highlighted some environmental related costs incurred in preventing, reducing or repairing damages to the environment and social cost incurred to acknowledge organizations' responsiveness to the society at large. Data were collected from three manufacturing firms in Nigeria and were tested using population t-test, ordinary least square and multivariate statistics. It was revealed that there is a significant difference between the compliance level of Nigerian companies on environmental accounting and social responsibility disclosures and the ISAR requirements among other findings. It was recommended that firms should be sensitive to their environmental activities, and account for all environmental related cost and they should desist from environmental pollution and degradations.

Mahoney and Roberts (2007) performed empirical analyses on a large-sample of publicly held Canadian companies. Based on tests utilizing four years of panel data they found no significant relationship between a composite measure of companies' environment and financial performance. However, they found significant relationships between individual measures of companies' social performance regarding environmental and international activities and financial performance. Subroto (2002). He used an explanatory survey and multivariate correlations, using cross-sectioned data and critical part analyses, to analyse a correlation

study on CSR and financial performance towards ethical business practices in Indonesia. Three hypotheses were tested. Testing results of the first hypothesis, all interests of stakeholders had a significant correlation. Results of the second hypothesis were still positive. Lastly, the third hypothesis indicated that the correlation between environmental responsibility and financial performance was quite low. Haniffa and Cooke (2005) found a significant relationship between corporate social disclosure and boards dominated by Malay directors, boards dominated by executive directors, chair with multiple directorships and foreign share ownership. Four of the control variables (size, profitability, multiple listing and type of industry) were significantly associated with corporate social disclosure with the exception of gearing.

Moneva, Rivera-Lirio and Munoz-Jones (2007) also found a positive link between corporate environmental responsibility and financial performance. They studied 52 Spanish listed firms in six different sectors and measured the CSR level based on GRI guidelines. They found "only 58 percent of the firms produce sustainability or CSR reports, and 63 percent of them follow GRI guidelines". Oeyono, (2011) investigated the level of corporate social responsibility conducted by the top 50 corporations in Indonesia based on Global Reporting Initiative (GRI) guidelines, as well as to investigate the relationship between CSR and profitability. Their finding showed that Indonesian corporations are already aware of the increasing demands and provide CSR information to stakeholders in the emerging economy. The CSR reporting measured as per the GRI indicated that five out of 45 corporations (11 per cent) completed a maximum of six GRI indicators, ten corporations (22 per cent) fulfilled five indicators and 16 corporations (36 per cent) complied with four indicators. The analyses disclosed that there was a positive relationship between CSR and profitability, although it is weak (18 per cent for EBITDA and 16 per cent for EPS). Appah (2011) examined the practice of social accounting disclosure in Nigerian companies. Forty companies from eight sectors quoted in the Nigerian Stock Exchange were randomly sampled. Data were collected from the annual reports of the companies' for the period 2005 to 2007 and the level of disclosure is measured using content analysis and descriptive analysis. The paper found that 82.5% of the companies sampled present social accounting information in their annual reports. The results show that Nigerian companies prefer to disclose social accounting information in the Directors Report, Chairman's Statement and Notes to the Accounts in

the form of short qualitative information. Human resources, community involvement and environment were identified as the most popular themes. Hence, the paper recommends among others that companies should take social accounting as a moral duty; legislation for all companies to disclose social accounting information in Nigeria; social indicators to be developed at the national level in the area of employment opportunities, environmental control, energy conservation, health care etc and professional accounting bodies in the country should collaborate to expand research in social accounting.

Bassey, Effiok and Eton (2013) examined the impact of environmental accounting and reporting on organizational performance with particular reference to oil and gas companies operating in the Niger Delta Region of Nigeria. The study was conducted using the Pearson's product moment correlation coefficient. The elements were selected by means of random and stratified sampling technique. Data were gathered from primary and secondary sources. Data collected were presented using tables and analyzed using the Pearson's product moment correlational analysis. It was found from the study that environmental cost has satisfied relationship with firm's profitability. It was concluded that environmentally friendly firms will significantly disclose environmental related information in financial statements and reports. The study recommended that firms should adopt a uniform method of reporting and disclosed environmental issues for the purpose of control and measurement of performance and that accounting standards should be published locally and internationally and reviewed continually to ensure dynamism and compliance to meet environmental and situational needs. Oyadonghan and Eze (2013) empirically investigated the impact of environmental accounting in Nigerian oil prospecting companies. Three (3) companies operating in the Niger Delta States of Nigeria were randomly sampled with thirty (30) host communities drawn from Delta, Bayelsa, Rivers and Akwa-Ibom states. Secondary data were collected from each company's annual reports from 2002 to 2011 and one hundred and seventy two questionnaires were administered to staff and host community members for direct inter personal information. The researchers used least square regression analysis with the help of Econometric view (E-view) model to analyse the effect of the identified variables on the practice of social and environmental accounting. The study revealed that the sampled companies did not in detail, report a close to reality estimate of the externalities generated by their production activities but reports the little intervention cost incurred under the directors or

the chairma's report. Again, that factors such as cost of implementation, the effect on profitability, the existence of a legal frame work, the peaceful environment and top management support affects 79% of the level of implementation of environmental accounting practice among the companies studied.

### 3. METHODOLOGY

This study adopts the cross-sectional field survey of quasi-experimental research design. The survey design was adopted because of the need to gather enough discriminative data across a wide range of the study subjects that further enhanced the generation of our findings. Data used in this study were mainly collected from primary and secondary sources. The statistical and mathematical tools to be used include percentages, frequencies, tabulation, and descriptive statistics while multiple regression analysis was used to test the hypotheses. The multiple regression model is guided by the following linear model:

$$Y = f(X_1, X_2, \dots) \quad (1)$$

$$CFP = \beta_0 + \beta_1 HUR_1 + \beta_2 ENSD_2 + \dots + \varepsilon \quad (2)$$

That is  $B_1 - \beta_5 > 0$  Where: CFP = Corporate Financial Performance; HUR = Human Resources; and ENSD = Environmental Sustainability Disclosures;  $\beta_1, \beta_2$ , are the coefficients of the regression, while  $\varepsilon$  is the error term capturing other explanatory variables not explicitly included in the model. However, the model was tested using the diagnostic tests of heteroskedasticity, serial correlation, normality and misspecification (Gujarati and Porter, 2009; Asterious and Hall, 2007).

### 4. DATA ANALYSIS AND DISCUSSION

One hundred and thirty-three questionnaires were administered to seven oil and gas companies in Rivers State, Nigeria namely: OBAT Petroleum (distributed fifteen, thirteen returned), SHELL (distributed thirty, twenty-seven returned), AGIP (distributed twenty-eight, twenty-six returned), SDV (distributed fifteen, returned fourteen), ASCOT (distributed fifteen, returned fourteen), BENEK (distributed fifteen, returned fourteen), HSP (distributed fifteen, returned thirteen). However, the total response rate for the entire returned questionnaires was eighty five percent (91%). This was used for the analysis of research questions and hypothesis testing.

Relevant data used for the analysis were from 113 respondents and the data revolves on human resources aspect of environmental sustainability accounting and corporate financial performance of oil & gas companies in Rivers State.

The test of the hypotheses was based on the linear model below:

$$CFP = \beta_0 + \beta_1 HUR_1 + \beta_2 ENSD_2 + \varepsilon$$

**Table 1: Breusch-Godfrey Serial Correlation LM Test:**

F-statistic	6.929189	0.121336	Probability
Obs*R-squared	13.34731	0.101264	Probability

Source: e-view output

Table 1, shows the Breusch – Godfrey Serial Correlation LM test for the presence of auto correlation. The result reveals that the probability values of 0.12 (12%) and 0.10 (10%) is greater than the critical value of 0.05 (5%). This implies that there is no evidence for the presence of serial correlation.

**Table 2: White Heteroskedasticity Test:**

F-statistic	0.94216	0.496821	Probability
Obs*R-squared	9.51986	0.483577	Probability

Source: e-view output

Table 2 shows the White Heteroskedasticity test for the presence of heteroskedasticity. The econometric result reveals that the probability values of 0.496 (50%) and 0.483 (48%) are considerably in excess of 0.05 (5%). Therefore, there is no evidence for the presence of heteroskedasticity in the model.

**Table 3: Ramsey RESET Test:**

F-statistic	0.067894	Probability	0.79479
Log	0.071133	Probability	0.78969

Source: - view output

Table 3, shows the Ramsey RESET test for misspecification. The econometric result suggests that the probability values of 0.794 (79%) and 0.789 (79%) are in excess of the critical value of 0.05 (5%). Therefore, it can be seen that there is no apparent nonlinearity in the regression equation and so it would be concluded that the linear model for the accounting services is appropriate.

**Table 4: Augmented Dickey-Fuller Unit Root Test**

Variable	ADF	1%	5%	Test for Unit root
CFP	-3.81698	-3.4755	-2.8810	I(0)
HUR	-3.75950	-3.4755	-2.8810	I(0)
ENSD	-4.79277	-3.4755	-2.8810	I(0)

Source: e-view output

Table 4 shows the Augmented Dickey-Fuller unit root test for stationarity of the variables. The result suggests that corporate financial performance (CFP), human resources (HUR) and environment disclosures (END) with ADF of -3.816986, 3.759500, and -4.792773, is less than 1% of -3.4755 and 5% of 2.8810. The result reveals that the variables are stationary at I(0). Therefore, ordinary least square can be applied in the analysis of data when data is stationary at I(0) (Greene, 2002; Wooldridge, 2006; Asterious and Hall, 2007; Brooks 2008; Gujarati and Porter, 2009; Kozhan, 2010).

**Table 5: Multiple Regression Analysis**

Dependent Variable: CFP
Method: Least Squares
Date: 07/07/2022 Time: 15:58
Sample(adjusted): 1 113
Included observations: 112 after adjusting endpoints



Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.27544	2.256854	1.45133	0.1488
HUR	0.28593	0.095665	2.98901	0.0033
ENSD	0.24949	0.106625	2.33988	0.0206
R-squared	0.318412	Mean dependent var		12.9934
Adjusted R squared	0.261218	S.D. dependent var		3.09810
S.E. of regression	2.888876	Akaike info criterion		4.99796
Sum squared resid	1.226.71	Schwarz criterion		5.11681
Log likelihood	376.344	F-statistic		117.7975
Durbin-Watson stat	-2.16401	Prob(F-tatistic)		0.000100

Source: e-view output

Table 5, shows the multiple regression analysis for environmental Sustainability accounting and reporting on the performance of oil and gas companies in Rivers State, Nigeria. The result suggests that human resources disclosures, and environmental sustainability disclosures with p-values of 0.0033 and 0.0363 is less than the critical value of 0.05. Hence, we deduce that there is a significant relationship between environmental sustainability accounting and reporting disclosures on the performance of oil and gas companies in Rivers State Nigeria. The  $R^2$  (coefficient of determination) of 0.318414 and adjusted  $R^2$  of 0.285935 shows that the variables combined determines about 32% and 29% of revenue generation. The F-statistics and its probability shows that the regression equation is well formulated explaining that the relationship between the variables combined of performance are statistically significant (F-stat = 5.567008; F-pro. = 0.000100). This result conforms with the findings of Hossain et al., (2006), where a positive association between profitability and the extent of corporate environmental disclosure was reported.

## 5. CONCLUSION

On the basis of the findings of this study, the following conclusion was drawn: The disclosure of human resources as a measure of environmental sustainability accounting and reporting in the annual reports of companies does affect the corporate financial performance of oil and gas companies in Rivers State. The disclosure of environmental sustainability issues as a measure of environmental sustainability accounting and reporting in the annual reports of companies does affect the corporate financial performance of oil and gas companies in Rivers State.

Management of organization with regard to the growing body of environmental laws and regulations should be the same as any other laws and regulations where non-compliance may materially affect the auditor's report. Until a concrete regulatory standard is developed and embraced by all stakeholders and auditors. It does not mean that companies should ignore the environmental sustainability issues in their reporting, neither should corporate auditors ignore the issue while conducting statutory audit. Rather, the current existing voluntary standards, such as ISO 40001 if vigorously pursued can bring real benefits to organization and will be a good preparatory ground before regulatory environmental sustainability reporting standards become mandatory in the future. The government should put in place suitable legislation for all companies to compel them to make adequate disclosure of their activities to the society, and Environmental accounting standards should be

published locally and internationally and reviewed continually to ensure dynamism compliance and meets environmental sustainability needs. Firms should formulate and implement environmentally friendly policies.

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