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Effect of Environmental Prevention Costs Disclosure on Productivity of Oil and Gas Firms in Nigeria

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Abstract: *This study assessed the Effect of Environmental Prevention Costs Disclosure on Productivity of Listed Oil and Gas Firms in Nigeria. Prevention Cost Disclosure; was used to proxy Environmental Costs Disclosure, while revenue growth was used to measure productivity. Based on the objectives of the study. Ex-Post facto research design and content analysis were adopted. Twelve oil and gas firms in Nigeria constituted the sample size of this study between 2010 and 2019. Secondary data were extracted from the annual reports and accounts of the sampled firms and were analysed using E-Views 10 statistical software. The study employed descriptive statistics and inferential statistics using Pearson correlation and Panel Least Square (PLS) regression analysis. Findings from the empirical analysis showed that Environmental Prevention Cost Disclosure; has a significant positive effect on Revenue Growth at 5% level of significance respectively in Nigeria. It was recommended inter alia that corporate entities in Nigeria should invest in Environmental Prevention Cost Disclosure; as this will bolster firm productivity.*

Key words: Environmental prevention costs, productivity, oil & Gas firms

1.0 Introduction

Environmental cost is an issue that has captured the attention of national and international, political and business leaders across the globe and the developed world. The creation of wealth has led to various environmental impacts such as depletion of non-renewable resources, global warming, diminution of land resources, acidification, reduction of water resources and potential threats to health and safety of employees (Ezeokafor & Amahalu, 2019). The issue of environmental abuses and degradation has led various sectors, governments and non-governmental organizations (NGOs) to engage with environmental sustainability debates and initiate strategies for responding to the challenges of sustainable development. It is also in response to this that the academic world has dedicated various groups to the issues of environment and sustainable development.

Exploration of oil and gas resources carried out onshore and offshore by oil producing companies in Nigeria have far reaching visible environmental and socio-economic impacts. Oil and gas activities have culminated in altering environmental and biological makeup, leading to ecological damage, emissions, pollution and landscape destruction. Employee's health and safety is at stake due to interference with toxic substances. The environment is not spared of waste as a result of oil and gas operations thereby hampering environmental sustainability. The

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host communities where oil and gas explorations are carried out remain undeveloped leading to youth restiveness and militancy. Listing rules requires companies to disclose/report on their environmental footprints, health and safety strategies aimed at abating or mitigating employee work related accidents, waste management procedures/processes adopted to control or manage companies waste in order to reduce its impact on the environment and effort geared towards improving the standard of living of its host communities through the provision of infrastructural facilities and other basic amenities. These requirements are not met by most firms in the oil and gas sector and as a result, the business environment becomes volatile and unconducive for businesses to thrive as these firms are perceived as environmentally unfriendly which impedes corporate image and adversely affects productivity.

1.2 Statement of the Problem

The motivation for the study arose out of the questions posed by alleged environmental abuses of multinational extractive companies who are charged with depleting non-renewable resources, and further harming the environment through air emission, discharge of liquid effluents and generation of large volume solid waste. Beyond the adverse environmental impacts of the extractive companies, they are also accused of elevating the unethical business conduct and social ills of modern society in form of bribery (giving or receiving something of value after a transaction is completed), extortion (demanding a sum of money or goods with threat of harms), conflict of interest (employee has an economic or personal interest in a transaction), kickbacks (portion of the value of the contract demanded as a bribe by an official for securing contract), corporate espionage (theft of trade secrets, theft of intellectual property or copyright) and commission/fee (paid to an agent for assistance in securing a commercial contract.

Extant environmental literature have documented studies on environmental cost and performance but this study aims at contributing to literature by empirically analyzing the relationship between environmental cost and productivity of listed oil and gas companies in Nigeria. In such a context, it becomes pertinent to empirically find out if negative or positive corporate environmental behaviour impact on productivity. Some studies purport to find a positive relationship between environmental behaviour and perfromance (Ezeokafor & Amahalu, 2019; Amahalu, Okoye & Obi, 2018; Simerly 2018, Schaltegger & Wagner, 2014; Coleman, 2011; Orlitzky, 2008; Rodriguez and Cruz, 2007; Salama, 2005). Similar studies found a negative relationship (Pincus, Rusbarsky & Wong, 2019; Crane, Matten & Moon, 2018; Bromley, 2016; Thornton, Kagan, & Gunningham, 2013). While others showed either inconclusive results or no (neutral) effect (Klassen & McLaughlin, 2016; Makni, Francoeur & Bellavance, 2009), thereby creating a gap in knowledge.

It is expected that a company with poor environmental credentials is punished in the form of dwindling financial fortune by strategic stakeholders like consumers etc. But this may not be the same always judging from previous research evidences that have shown inconsistent results when the relationship between corporate environmental cost and performance was investigated. The typical conclusion, based on narrative reviews of literature is that the empirical evidence is too mixed to allow for any firm conclusion. In most of the previous reviews, poor measures, methodological shortcomings, difficulties in obtaining data and weak theory construction are often mentioned as causes of this apparent variability in findings (Odoemelam & Okafor 2018).

1.3 Objectives of the study

The main objective of this study is to:

Assess the effect of Environmental Prevention Cost Disclosure on Revenue Growth of listed Oil and Gas firms in Nigeria.

1.4 Research Question

The research question that guided this study is:

To what extent do Environmental Prevention Cost Disclosure affect Revenue Growth of listed Oil and Gas firms in Nigeria?

1.5 Research Hypothesis

The research hypothesis for this study was stated in null forms:

Ho_{1a}: Environmental Prevention Cost Disclosure has no significant effect on Revenue Growth of listed Oil and Gas firms in Nigeria.

1.6 Significance of the Study

The findings of this study would be beneficial to the following:

i. Host Communities

This study will assist in efficient costs valuation of environmental prevention and compensation to affected communities particularly the Oil and Gas areas of Nigeria as appropriate environmental cost accounting in corporate financial statements will facilitate efficient valuation of degradation in affected communities.

ii. Corporate Organisations

This study will be beneficial to corporate organizations as ethical investors and the environmental conscious general public will watch out for the ethical responsible companies. As excellent environmental performance can improve corporate organization efficiency and increase stakeholders' market expectations.

2.1 Conceptual Review

2.1.1 Environmental Costs Disclosure

Disclosure is a means through which a company reports its environmental activities to the stakeholders (Kothari, Xu & James, 2019). Environmental disclosure can be defined as disclosures that related to a company's past, current and future environmental management decisions, activities and performance (Murray & Vogel, 2017). Environmental cost disclosure is the process of communicating externally the environmental effects of organizations' economic actions through the corporate annual report or through a separate, stand-alone, publicly available environmental report. It tends to encompass reporting relating to environmental policies, impacts, processes and audits, environmental-related expenditures, the environmental benefits of products, and details regarding sustainable operations(Ahmed, H., & Anifowose, M. (2017). Environmental cost information

disclosure renders companies' environmental information transparent to both the public and the government. Additionally, the disclosure plays an important role to the society by leading companies to put effort on sustainable development and it might benefit the companies themselves by giving a positive public image (Akbas, 2016).

Environmental cost disclosure is the production of narrative numerical information on an organization environmental impact or footprint for the accounting period under review (Cho & Patten, 2017). The narrative information can be used to convey objective, aspiration, management decision, addresses specific stakeholder concerns etc. Magara, Aming and Momanyi (2015) believe numerical disclosure can be used to report on those measures that can be usefully and meaningfully be conveyed in that way such as emission or pollution amount, resource consumers, land use etc. the reporting of environmental cost can be direct or indirect. Direct environmental reporting measures only what is within the reporting entity while indirect measures report on the forward and back supply chains which the company has incurred in bringing the products from their origins to the market (Baboukardos, 2017). Thus, a full environmental reporting will include direct and indirect (though it is hard to measure environment impact outside the reporting entity under the Nigerian context) (Jerry, Teru & Musa, 2014).

2.1.2 Environmental Prevention Cost Disclosure

Environmental prevention costs are the costs of activities carried out to prevent the production of contaminants and/or waste that could cause damage to the environment (Albuquerque, Koskinen & Zhang, 2018). Prevention costs are costs incurred to avoid or minimize the number of defects at first place. Some examples of prevention costs are improvement of production processes, workers training, quality engineering, statistical process control etc (Stock, Wright & Yogo, 2019). Environmental prevention costs include the costs of preventive environmental management activities such as cleaner production projects. It also include costs for other environmental management activities, such as environmental planning and systems, environmental measurement, environmental communication, and any other relevant activities (Rubin, 2018).

Enterprises are required to formulate their vision depending on the concept of sustainability. Activities of enterprises with a sustainable business vision will contribute to the enterprise environment and development of the society in which it operates. However, in order to maintain these activities, environmental factors should also be taken into consideration. Today, assessment and management of environmental costs which constitute one of the major cost items within the scope of the sustainability have great importance for businesses (Deng, Kang & Low, 2013). The main objective of businesses to maximize profits in the short term and in the long term is to maximize shareholders' wealth. However, the operation results of an enterprise affect not only the owners and its partners, but also affect the community, various institutions and organizations. The activities of businesses are under pressure from these groups (Casadesus-Masanell, Crooke, Reinhardt & Vasishth, 2019). Businesses need to consider not only the economic dimension of their activities but also need to consider the social and environmental dimensions Environmental accounting is to present the financial and non-financial information, obtained from the physical effects of businesses on the environment and their efforts to minimize these environmental effects, to the public. Businesses is required to report the physical and financial information related to the environment in which it operates and natural resources it uses to the public in a separate statement

in the accounting information system. The potential harm that business activities may give to the environment with financial aspects and the expenditure and initiatives that could prevent these harms should be full disclosure to the public by enterprises under the principle of public disclosure (Ioannou & Serafeim, 2012).

2.1.3 Productivity

Productivity is a measure of performance or output *(William, 2019)*. Productivity is the number of sales generated per sales person. Productivity is the basic measure that defines growth in an organization and one's living standards (higher income, better benefits) (Ravinder, 2019). Productivity is a measure of the efficiency of a person, machine, factory, system, in converting inputs into useful outputs. Productivity is a metric that measures the process of creating goods and services (Darius, 2019). Productivity is the ratio of the amount of output from a team or organization per unit of input (Bordoloi, 2019). Productivity describes various measures of the efficiency of production. Often, a productivity measure is expressed as the ratio of an aggregate output to a single input or an aggregate input used in a production process, i.e. output per unit of input, typically over a specific period of time (*Luthans & Stajkovic, 2015)*. Productivity is a crucial factor in production performance of firms. Increasing organisatinal productivity can raise living standards because more real income improves people's ability to purchase goods and services, enjoy leisure, improve housing and education and contribute to social and environmental programs. Productivity growth can also help businesses to be more profitable (Robson, Kirk, Kietzmann & McCarthy, 2016). Productivity growth is a crucial source of growth in living standards. Productivity growth means more value is added in production and this means more income is available to be distributed (*Zelenyuk, 2018).*

2.1.4 Revenue Growth

Revenue growth is the increase (or decrease) in a company's sales from one period to the next. Shown as a percentage, revenue growth illustrates the increases and decreases over time identifying trends in the business (Bernard, 2019). The amount of a company's total revenues is the total money it earns from providing its products or services to customers before paying any expenses. In accounting, a company's revenues can be cash sales or sales for which customers pay at a later date. A company reports its total revenue on its income statement, which is a financial statement that shows a company's revenues, expenses and profit. Revenue growth can increase a company's profits and increase value for stockholders (Campbell, 2019). Revenue growth is the increase, or decrease, in a company's sales between two periods. Communicated as a percentage, revenue growth demonstrates the degree to which a company's revenue has grown (or shrunk) over time (Keythman, 2017). Revenue growth rate is calculated by comparing the previous period's revenue with the current period's revenue (Spacey, 2017).

The formula for calculating revenue growth is: (Chen, 2019)

Current Year Revenue – Prior Year Revenue

Prior Year Revenue

Revenue Growth Rate is an indicator of how well a company is able to grow its sales revenue over a given time period (Chen, 2019).

2.2 Theoretical Exposition

2.2.1 Environmental Prevention Cost Disclosure and Productivity

Human activities have led to damages to the environment, including depletion of natural resources, environmental pollution and abnormal climates. The global consensus is to promote sustainable development (Guo, Xia, Zhang & Zhang, 2018). Many countries around the world have mandated enterprises to establish environmental accounting and to disclose environmental information for the reference of interested parties. Once green accounting is enforced by the government, enterprises are required to internalize the external costs of the production activities, thus increasing the production and operational costs. Hence, in order to maintain the current profits or to lower costs, enterprises must make improvements in product design, such as green innovation or product redevelopment (Dobrzykowski, McFadden, & Vonderembse, 2016; Jiang, Xue & Xue,2018). Environmental accounting is to use lifecycle assessment to measure the environmental impacts of corporate activities, promote the use of clean production, adopt total cost assessment and combine traditional accounting to disclose the environmental financial information of the enterprises (Lu & Shang, 2017). The purpose is to urge enterprises to implement effective and efficient environmental activities, so as to achieve sustainable development. Environmental accounting makes environmental expenditure a part of operational cost; thus, new thinking should be adopted for product design, in order to maintain the existing profits, enhance environmental performance or meet the green (environmental) accounting rules (Feng & Chen, 2018). Brolund and Lundmark (2017); Dechezleprêtre and Sato (2017) found a positive relationship between prevention cost and financial performance. On the contrary, Yang, Liu, Sun & Zhang (2017); Chong, Qin & Ye (2017) posited that expenditure on prevention negatively affects the performance of companies.

2.3 Empirical Review

Earnhart and Lizal (2011) analyzed the effect of corporate environmental performance on financial performance in a transition economy. In particular, the study assessed whether good environmental performance affects profits, and if so, in which direction. Then the study decomposed profits into revenues and costs in order to identify the channel(s) of any identified effect of environmental performance on profits. For example, as environmental performance improves, do revenues rise and costs fall so that profits increase? For this assessment, this study analyzed the links from environmental performance to revenues, costs, and profits using an unbalanced panel of Czech firms from the years 1996 to 1998 using multiple regression analysis. The empirical results indicated strongly and robustly that better environmental performance improves profitability by driving down costs more than it drives down revenues. The strong reduction in costs is consistent with the substantial regulatory scrutiny exerted by environmental agencies during the sample period in the forms of prevalent monitoring (i.e., inspections) and enforcement and escalating emission charge rates.

Cortez and Cudia (2011) explored the impact of environmental innovations on financial performance of Japanese electronics companies following the growing literature linking corporate social performance with profitability. Using sample electronics companies listed in the Tokyo Stock Exchange, the industry case study focused on the global manufacturing leaders as they play a significant role in advancing environmental reporting due to their supplier networks and subsidiaries. The study initially investigated if sustainability performance of electronics companies positively impacts financial performance following the resource-based view perspective.

Alternatively, the study explored if environmental performance is facilitated by financial performance in prior years following the theory on slack availability of resources. The findings pointed to risk minimization efforts of electronics companies in spite of declining profitability. Their sustainability performances are justified by the legitimacy granted to them as socially responsible that translates into improved revenue generation.

3.1 Research Design

This study achieved its objectives by employing *ex-post facto* research design. This is because *ex-post facto* research design involves repeated observations of the same units (companies in this study) over a period of time (2010 to 2019). *Ex-post facto* research design also seeks to determine the cause-effect relationship between the dependent and independent variables of the study.

3.2 Sample Size and Sampling Technique

Twelve (12) upstream Oil and Gas companies were selected as the sample size of this study with the utilization of purposive sampling method. Data were gathered from the published financial statements of listed twelve (12) upstream Oil and Gas companies in Nigeria, which are: Addax Petroleum Exploration; Chevron Nigeria; Conoco Petroleum Nigeria; Elf Petroleum Nigeria; Esso Exploration & Production (Nigeria); Mobil Producing Nigeria; Nigerian Agip Oil (NAOC); Shell Nigeria Exploration & Production; Texaco Nigeria; Conoil Producing; Nigerian National Petroleum Corporation (NNPC).

3.3 Method of Data Collection

This study made use of secondary data precisely. The data were sourced from publications of the Nigerian stock exchange (NSE), fact books, annual report and accounts, and websites of the sample listed oil and gas companies, particularly the comprehensive income statement and statement of financial positions of these companies as well as their respective notes to the accounts and stand alone sustainability report.

In determining the presence of environmental cost, the disclosure occurrence method of content analysis technique was applied to the information in corporate reports and sustainability reports. According to Ratna, Grantley, Rusminm, Greg and Bikram (2016), there are two ways of applying content analysis technique. These mechanisms are disclosure occurrence and disclosure abundance method. These methods are used to ascertain the content of corporate disclosures. The disclosure abundance method entails counting pages, words, or sentences on a checklist of disclosure items. The demerit of this method is that it can lead to double counting when a particular item on the checklist of disclosure items is counted twice or more because it occurs more than once in the actual report. The disclosure occurrence method recognizes the presence of disclosure in the corporate report as '1' and the absence of disclosure as '0'; after which the total disclosure is determined. It can also result in a more predictable measurement of sustainability reporting. This study adopted the Global Reporting Initiative (GRI) framework disclosures according to the G4 guidelines for the purpose of developing the Environmental cost disclosure indices. Environmental Reporting was evaluated by 12 indicators: Materials; Energy; Water; Biodiversity; Emissions; Effluents and Waste; Products and Services; Compliance; Transport; Overall; Supplier Environmental Assessment; Environmental Grievance Mechanisms.

GRI Sustainability Reporting Guidelines offer companies some principles to ensure the quality of information in the sustainability report: Balance; Comparability; Accuracy; Timeliness; Clarity; Reliability. All of these principles are fundamental to achieving transparency so that stakeholders can make reasonable assessment of performance and take proper actions, and meanwhile the public is able to know the whole picture of companies' activities. This study created a scorecard which is based on those principles described in GRI guidelines. The disclosure indicators were measured by assigning a value to each of them, a value that is from zero (0) to five which reflects the quantity as well as quality of information. '0' is given to imply the absence of the disclosure. An indicator was assigned a value of 1, if there is only qualitative data; 2, if there is quantitative data (ACCURACY); 3, if there are quantitative data and also time series (COMPARIBITLITY & TIMELINESS); 4, if there are quantitative data, time series and targets (BALANCE & CLARITY); 5, if there are quantitative data, time series, targets and external assurance (RELIABILITY).

Thus, the maximum score for environmental cost disclosure is 60 (5 x12)

Therefore,

ECDI =TDP/MP

Where;

ECDI = Environmental Cost Disclosure Index

TDP = Total Disclosure Points of a Firm

MP = Maximum Points for a Firm (60)

3.4 Method of Data Analysis

Data collected in this study were analysed using content analysis and disclosure index which were subjected to preliminary and inferential analysis. Content analysis method is concerned with the number of words and sentences on particular information while disclosure index entails measuring the level of information reported in corporate reports using a set of pre-determined elements. Preliminary data analysis refers to use of descriptive statistics in interpretation of data. These descriptive statistics include mean, median, standard deviation, kurtosis, skewness, maximum and minimum. On the other hand, inferential data analysis entails the use of statistical tools to test the hypotheses:

3.5 Model Specification

This study adapted the model of Lan, Wang & Zhang (2013):

$ROA = \alpha + \beta_1 ELCP + \beta_2 DCC + \beta_3 ERPC + \varepsilon$

Where:

ROA = Return on Assets

ELCP = Total Cost of Complying with Environmental Laws and non Compliance Penalty

DCC = Total Donations and Charitable Contributions

Total Cost of Environmental Remediation and Pollution Control

β_0 = Intercept

β_{1-3} = Coefficient of the independent variables

ε = Residual or error term

The following research model was formulated in order to empirically determine the effect of prevention cost disclosure on Productivity:

$RVG_{it} = \beta_0 + \beta_1 EPCD_{it} + \beta_2 LEV_{it} + \beta_3 FSZ_{it} + \mu_{it}$ - **Model 1**$_a$

Legend:

RVG_{it} = Revenue Growth of firm *i* in period *t*

$EPCD_{it}$ = Environmental Prevention Cost Disclosure of firm *i* in period

3.6 Decision Rule:

Accept H_o, if the P-value of the test is greater than 0.05, otherwise reject.

4.1 Data Presentation

The panel data used were extracted from the sample oil and gas firms for the period under review.

4.2 Data Analysis

Table 4.1 Descriptive statistics for listed upstream oil and gas firms in Nigeria

	RVG	EPCD
Mean	0.3610	0.2460
Median	0.3550	0.2550
Maximum	0.5400	0.3300
Minimum	0.0100	0.0000
Std. Dev.	0.0387	0.0715
Skewness	0.6106	-0.6808
Kurtosis	2.7530	2.7672
Jarque-Bera	0.6468	0.7951
Probability	0.7237	0.6720
Sum	0.6100	1.4600
Sum Sq. Dev.	0.0135	0.0460
Observations	120	120

Source: E-Views 10 Descriptive output, 2020

Interpretation

Table 4.1 presents the descriptive statistics for the different variables of the listed upstream oil and gas firms in Nigeria with an observation of 120 (i.e 12 firms x 10 years). Based on table 4.1, it can be observed that on the average, as indicated by the mean, the revenue growth for upstream oil and gas firms in Nigeria is 0.3610. The implication is that on the average there is 36.10% growth in the oil and gas firms revenue in Nigeria. However, throughout the period of 2010 to 2019, the maximum revenue growth is 54% while the minimum revenue growth stood at 1%. EPCD has a mean of 0.246 with a standard deviation of 0.0715 for Nigeria oil and gas firms, implies that involvement of oil and gas companies in Nigeria towards environmental prevention is about 24.6% at a maximum degree of 33% and a minimum of 0

4.3a Test of Hypotheses for Nigeria

4.3.1a Test of Hypothesis I

Ho_{1a}: Environmental Prevention Cost Disclosure has no significant effect on Revenue Growth of listed Oil and Gas firms in Nigeria.

H_{1a}: Environmental Prevention Cost Disclosure has significant effect on Revenue Growth of listed Oil and Gas firms in Nigeria.

Table 4.1: Panel Least Square Regression analysis testing the effect of Environmental Prevention Cost Disclosure on Revenue Growth

Dependent Variable: RVG				
Method: Panel Least Squares				
Date: 06/01/20 Time: 13:57				
Sample: 2010 2019				
Periods included: 10				
Cross-sections included: 12				
Total panel (balanced) observations: 120				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.248833	0.085441	2.912335	0.0043
EPCD	0.033203	0.059180	5.871031	0.0000
LEV	0.004772	0.004064	7.174332	0.0000
FSZ	-0.016750	0.006876	-2.436146	0.0164
R-squared	0.761502	Mean dependent var		0.090783
Adjusted R-squared	0.737231	S.D. dependent var		0.091981

S.E. of regression	0.090252	Akaike info criterion	-1.939653
Sum squared resid	0.944872	Schwarz criterion	-1.846737
Log likelihood	120.3792	Hannan-Quinn criter.	-1.901920
F-statistic	27.54133	Durbin-Watson stat	1.650429
Prob(F-statistic)	0.000000		

Source: E-Views 10 Regression Output, 2020

Interpretation of Regression Output

The above shows the regression output of the effect of environmental prevention cost disclosure on revenue growth and the result of the model is written as:

$RVG_{it} = 0.248833 + 0.033203EPCD_{it} + \mu_{it}$

The model infers that 1% increase in EPCD will exert 3.32% increase on RVG of listed oil and gas firms in Nigeria. It also shows that EPCD (β_1=0.033203); LEV (β_2=0.004772) have a positive relationship towards RVG while FSZ (β_2=-0.016750) exhibited a negative relationship towards RVG. The slope coefficients reveal that; P(x_1=0.0000<0.05; x_2=0.0000<0.05; x_3=0.0164<0.05). The model delineate that at 95% confidence level, there is a significant positive relationship between EPCD, LEV and RVG; a significant negative relationship between FSZ and RVG. The Durbin-Watson Value of 1.650429 buttressed the fact that the model does not contain auto-correlation, thereby, making the regression fit for prediction purpose. The adjusted R-Squared of 0.737231 shows that 73.7% of the systematic variation in RVG could be explained by EPCD, LEV and FSZ, while the remaining 26.2% is explained by the error term as part of the RVG which is not interpreted by the regression model.

Decision

Following the F-statistics of 27.54133 with an associated P-value of 0.000000 (p<0.05) which is less than 5%. Therefore, hypothesis H_1 is accepted while Ho is rejected. Hence, Environmental Prevention Cost Disclosure has significant positive effect on Revenue Growth of listed Oil and Gas firms in Nigeria at 5% level of significance.

5.1 Summary of Findings

In consonance with the analysis of this study, the following findings were deduced:

i_a. Environmental Prevention Cost Disclosure has a significant positive effect on Revenue Growth of listed Oil and Gas firms in Nigeria at 5% level of significance.

5.2 Conclusion

The thrust of this study was to ascertain the effect of Environmental Prevention Costs Disclosure on Productivity of listed Oil and Gas firms in Nigeria for a period of ten (10) years spanning from 2010 – 2019. Environmental Costs Disclosure which is the independent variable was proxied with Environmental Prevention Cost Disclosure; while productivity which served as the dependent variable was measured with revenue growth. Panel data were obtained from annual reports and accounts of the sampled oil and gas firms for the study period, using twelve (12) oil and gas firms in Nigeria. Regression analysis was employed via E-Views 10. The results of the tested hypotheses revealed that; Environmental Prevention Cost Disclosure; has a significant positive effect on Revenue Growth at 5% level of significance.

5.3 Recommendations

Based on the findings of this study, the following recommendations were made:

i. Firms should be encouraged to produce environmental reports with emphasis on the disclosure of environmental prevention cost on regular basis to manifest their commitment towards sustainable development which in the long run would bolster firms' productivity.
ii. Sanctions should be put in place to motivate disclosures most especially environmental prevention cost disclosure since it positively affects productivity of firms in Nigeria.

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