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EFFECT OF ENVIRONMENTAL COST DISCLOSURE ON CORPORATE PERFORMANCE OF QUOTED NIGERIAN CONSTRUCTION FIRMS

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Abstract: *This study is to determine the effect of environmental cost disclosure on corporate performance of quoted Nigerian construction firms. Specifically, the objectives of the study are to; evaluate the extent environmental restoration costs and pollution control cost affect return on assets of quoted Nigerian consumer goods firms. Ex post fact research design and content analysis were adopted. Formulated hypotheses were tested using linear regression analysis with the aid of SPSS Version 20.0. Based on this, the study found out that environmental restoration cost, pollution control cost have effect on corporate performance of quoted Nigerian construction firms. Based on this, the study recommended among others that Regular and continuous environmental evaluation will improve organizations sales, income and ensure that environmental situational needs are met.*

Keywords: Environmental cost disclosure, environmental restoration cost, pollution control cost and corporate performance

INTRODUCTION

Earth environment is a rich heritage handed over to us by previous generations. The present civilization has involved us in varied activities. Many of these activities generated waste with potential constituents. The ultimate disposal of the waste lead to environmental pollution in many parts of the world, the magnitude of pollution of the environment has already reached an alarming level (Pramanil, Shiland Das, 2007). During the fifties and sixties of the 19th century people all over the world become more concerned about the quality of their environment. Well known environmental tragedies, like the cause of mercury poisoning in mania mate (Japan), severe smoke pollution episode in London and massive oil spill caused by TERRY CANYON accident reinforced in people's mind the sense that the quality of air, water and a wide range of natural resources was being seriously degraded.

According to Field (2002), little was recognized of the environmental depletion and degradation to the environment until a few well meaning people in the developed countries realized that it was not good having great corporate profit5 without considering the cost of managing large scale of the ecosystem by which we are nourished. It became obvious that degradation, pollution and accelerated destruction of the ecosystem and the depletion of nonrenewable environment biodiversity have serious impact on the financial performance of firms.

Dimowo (2010) observed that companies in pursuit of profits can do great social harm and the environment suffers, thus, there is an emphasis for a meeting point between corporate objective of profit maximization and the need for environmental management. In this regard, the need for environmental cost has become the concern and focus of nations and responsible corporate managements (Okoye & Ngwakwe, 2004). Environmental Management Systems (EMS) have emerged as a means to systematically apply business management to environmental costs to enhance a firm's long-run financial performance by developing processes and products that

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simultaneously improve competitive and environmental performance.

Environmental accounting, which can assist in meeting this challenge, is an inclusive field of accounting, but represents a broader term that relates to the provision of relevant firm-level environmental performance information to internal and external stakeholders (Bennett & James 2000). Being a subset of environmental accounting, Environmental Cost Disclosure (ECD) is regarded as an extension of conventional cost accounting, and it is the focus of this research. Bye and large, for the purpose of this study, ECD is seen as the generation, analysis and use of monetary and physical (or financial and non-financial) environment related information in order to improve organizational financial and environmental performance (Bartolomeo et al. 2000).

Nowadays, the demand for company to apply environmental disclosure is very high in order to save the world and it is proved that company with environmental disclosure can achieve good performance. Along with economic growth, pressure on natural systems and earth resources intensify, managers seek to reduce operating costs and environmental impacts resulting from operational activities (Azar, Shahbazi, Abad & Mousavi, 2014). Few research of this nature focused on those costs incurred by these entities in maintaining their environment where they operate in order to ascertain whether this affect corporate profitability, sustainability, integrity and reputation.

A look at the previous studies particularly those by Nigerian authors shows a large domination of samples comprising only of a single sub-sector with the most current data being that of 2014

Against the backdrop, there is need to establish the extent environmental management accounting has impacted on the corporate performance of quoted industrial goods firms in Nigeria.

The main objective of this study is to determine the effect of environmental cost disclosure on corporate performance of quoted Nigerian construction firms. Specifically, the objectives of the study are to;

1. Evaluate the extent to which environmental restoration costs affect corporate performance of quoted Nigerian construction firms.
2. Ascertain the extent to which pollution control costs affect corporate performance of quoted Nigerian construction firms.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Environmental Cost Disclosure (ECD)

Environmental costs consist of environmental measures and environmental losses. They include cleanup costs, costs of recycling materials or conserving energy, closure costs, capital expenditure and development expenditure. These costs are incurred in preventing, reducing or repairing damage to the environment and conserving resources. However, environmental losses are costs, which bring no benefits to the business. This include, fines, penalties, compensation, and disposal losses relating to assets which have to be scrapped or abandoned because they damage the environment (Wright & Noe, 2006). Environmental costs are the environmental damage, an entity costs to the environment and its users as a result of its operations. There is also the general concern that environmental cost reduces operating flexibility, slow productivity of companies.

Accounting for environmental costs Though, the issues of environmental and social reporting are not explicitly provided for in the companies and allied matters act but has been catered for by both local and international standards like ISAR, Global reporting Index (GR). Corporate performance is no longer seen simply as being equivalent to and consequently measurable in terms of profitability alone. Information on the accounting for environmental costs is now required. Each types of cost are to be considered as it arises so as to accord it the appropriate treatment in line with Generally Accepted Accounting Principles (GAAP5) (Nwaiwu & Oluka, 2018).

Information generated through ECD can either be in monetary or physical terms. Correspondingly, the United Nations Division for Sustainable Development (UNDSD, 2001) states that: The general use of ECD information is for internal organizational calculations and decision making. ECD procedures for internal decision making includes both physical procedures for material and energy consumption, flows and final disposal, and monetized procedures for costs, savings and revenues related to

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activities with a potential environmental impact. Accordingly, an adequate accounting system that considers both environmental and economic impacts is important in assisting companies" to fulfill their environmental management tasks (Burritt, Hahn & Schaltegger, 2002).

ECD can be defined as the generation and analysis of both financial and non-financial information in order to support internal environmental management processes (Shane, 2005). It is complementary to the conversional financial management accounting approach, with the aim to develop appropriate mechanisms that assist in the identification and allocation of environment-related costs (Bennett & James, 1998). The major areas for ECD application include; in the assessment of annual environmental costs/expenditures, product pricing, budgeting, investment appraisal, calculating costs, and savings of environmental projects, or setting quantified performance target. Besides being a tool for reporting environmental costs to external stakeholders, the ECD has an internal company-level function and focus (Jasch, 2003; Lange & Alferi, 2004).

Corporate Performance

There are several aspects of performance, each of which contributes to the overall performance in an organization. Despite the evolution of various available benchmarks and performance measurement, the answer to what is performance may still be hard to pin down. The banking sector aims for strong performance, but few banks worry about what constitutes such performance. The current run up of the stock market, at a time when corporate profits are fast declining, raises the question of whether or not banks are doing satisfactory good job for their shareholders (Ghouri & Khan, 2011).

Hansen and Mowen (2005), states that firm performance is very essential to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization related to its authority and responsibility in achieving the goal legally, not against the law, and conforming to the morale and ethic. Performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage.

However, the concept of firm performance needs to be distinguished from the broader construct of organizational effectiveness. Organizational effectiveness covers other aspects related to the functioning of the organization as absence of internal strain and faults, engagement in legitimate activities, resource acquisition and accomplishment of stated goals (Cameron, 1986). Business performance, or firm performance as we refer to it in this study, is a subset of organizational effectiveness that covers operational and financial outcomes.

Operational Variables

Environmental protection is the practice of protecting the natural environment by individuals, organizations and governments. Its objectives are to conserve natural resources and the existing natural environment and, where possible, to repair damage and reverse trends.

Due to the pressures of overconsumption, population growth and technology, the biophysical environment is being degraded, sometimes permanently. This has been recognized, and governments have begun placing restraints on activities that cause environmental degradation. Since the 1960s, environmental movements have created more awareness of the various environmental problems. There is disagreement on the extent of the environmental impact of human activity and even scientific dishonesty occurs, so protection measures are occasionally debated.

i. Pollution Prevention

Pollution prevention is any action (large or small) that reduces the amount of contaminants released into the environment. By implementing P2 processes, fewer hazards will be posed to both public health and natural wellbeing.

Pollution is the contamination of air, soil, or water by the discharge of harmful substances. Pollution prevention is the reduction or elimination of pollution at the source (source reduction) instead of at the end-of-the-pipe or stack. Pollution prevention occurs when raw materials, water, energy and other resources are utilized more efficiently, when less harmful substances are substituted for hazardous ones, and when toxic substances are eliminated from the production process. By reducing the use and production of hazardous substances, and by operating more efficiently we protect human health, strengthen our economic well-being, and preserve the environment.

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Source reduction allows for the greatest and quickest improvements in environmental protection by avoiding the generation of waste and harmful emissions. Source reduction makes the regulatory system more efficient by reducing the need for end-of-pipe environmental control by government.

NPPR supports multi-media P2 approaches which work to solve environmental problems holistically and do not only focus on pollution in a single medium (air, land, or water). Well-intentioned rules, regulations and solutions that are not multi-media sometimes exacerbate existing conditions by creating larger problems to other media that are not accounted for by a single media-specific solution. Many times this can result in the transfer of pollution from one medium to another. For example, in some cases, by requiring hazardous air emission controls for industrial facilities, other problems might result, such as pollutants being transferred to underground drinking water through the residual sludge.

Adopting pollution prevention practices and techniques often benefits industry by lowering a company's operational and environmental compliance costs. By preventing the generation of waste, P2 can also reduce or eliminate long-term liabilities and clean-up costs. Furthermore, disposal costs are reduced when the volume of waste is decreased. This can also lead to a reduction in workplace exposures to hazardous materials which can affect workers' health and hence, their productivity. If less waste is produced, there will also be a diminished need for on-site storage space. Furthermore, by preventing pollution there will be a greater likelihood that a company will be in compliance with local, state, and federal compliance statutes. Finally, as community pillars, businesses shoulder an important responsibility for protecting the environment and natural resources for their own good as well as that of society.

iii. Environmental Restoration

Environmental restoration is closely allied with (or perhaps sometimes used interchangeably with) ecological restoration or environmental remediation. In the U.S., remediation is the term used more in the realms of industry, public policy, and the civil services. Environmental restoration is a term common in the citizens' environmental movement.

In the 1987 edition of his book restoring the Earth: How Americans are working to renew our Damaged Environment, scientific editor and writer John J. Berger defined environmental restoration (or "natural resource restoration") as follows:

> "… A process in which a damaged resource is renewed.
> Biologically.
> Structurally.
> Functionally."

Although the international field of restoration is driven primarily by the non-profit, government and academic sectors, in the U.S and certain other countries (e.g. Australia, which has a robust mining restoration sector), there are active markets for ecological restoration.

Empirical Review

Quite number of studies has been examined on environmental issues in relation with financial performance of corporate organizations. Olaoye and Adekanmbi (2018) examined the impact of environmental management accounting practices and report on organization performance. Specifically, the study investigates the present accounting practices for managing the significant environmental costs in the south-west Nigerian universities and to establish elements that can improve ECD sustainability within south-west Nigerian universities. The study made use of descriptive design survey type through structured questionnaire and the study employed stratified random and purposive sampling as sampling techniques. The findings of the study revealed that there is low present practice of environmental management accounting in South West Nigerian universities. The study also revealed that factors such as Low priority of accounting for environmental costs, resistance to change, Lack of institutional pressure, Lack of environmental responsibility & accountability and so on are strong factors that account for slow pace of ECD adoption in South West Nigerian universities. Therefore, it is concluded that the role of management accounting in improving environmental

performance has not yet been recognized and this has impeded the ECD adoption in South West Nigerian universities.

Arshad (2018) assessed whether a company organization in Erbil, Kurdistan Region has an influence on profit. This study, based on 50 local and international firms located in Erbil, KRG, were given a questionnaire, which was answered, by either the CFO or the accountant of the firm. This in an attempt to find out to what extent they care about the environment and society and if there are any governmental regulations and policies that needs to be followed and what affects this policy has on profits annually particularly in 2017. companies can have flash on many important possible regulations such as rise awareness among people to use public transportation, also the environmental issues become crucial to humanity if forget about environment and do whatever needed then the results will be very bad.

Mohamed (2018) examined the relation between Environmental and Social Corporate Governance practices and financial performance (FP) of Egyptian private sector companies included in the official share index of the Egyptian stock change. EGX 30 index the index includes 30 largest firms where liquidity and action. The EGX 30 is weighted at market value and adjusted by free float. The adjusted market value of the listed company is the number of its shares multiplied by the closing price of that company multiplied by the percentage of shares offered freely. This study provides important evidence on the impact of ESCG performance on Corporate Financial Performance (CFP). "This is particularly important given this sustainability and ESCG performance to identify key business activities of listed companies in Egypt. The study concluded that there is a strong correlation between social governance with its four dimensions (board responsibilities, disclosure, and transparency and investor rights protection) and the financial performance of Egyptian private sector companies within EGX30.

Malarvizhi and Ranjanni (2016) conducted a research to examine whether there is any significant relationship between Corporate Environmental Disclosure (CED) and firm performance of selected companies listed in Bombay Stock Exchange (BSE), India. They use content analysis methodology by developing an environmental disclosure index (EDI) and formulating hypotheses to test the association between firm performance and level of environmental disclosure. Primary data was collected using questionnaire instrument. A regression model with EDI as dependent variable and return on capital employed (ROCE), return on assets (ROA), net profit margin (NPM) and earnings per share (EPS) as independent variable is used to analyze data for this research. Results show there is no significant relationship between the level of environmental disclosure and firm performance.

Ijeoma (2015) determined the role of environmental cost accounting towards environmental sustainability in Nigeria. The source of data for this study is primary source of data collection with the aid of questionnaire. The research instrument was randomly administered to 200 respondents from organizations in Nigeria: Agricultural/Agro-Allied, Breweries, Chemical and Paints, Health Care/Pharmaceutical and Oil Marketing companies. The findings of the study revealed that majority of the respondents agreed that business organizations in Nigeria have not being aware of environmental policies. It was also found that that there exists no significant difference on business organizations in Nigeria not being aware of environmental policies.

Shehu (2014) examined the effect of environmental expenditure on the performance of quoted

Nigerian oil companies, within a period of twelve years (1999-2010) using selected firm financial statement of all quoted oil companies listed in the Nigerian Stock Exchange. The data was analyzed using multiple regression, employing ROA and three independent variables; Cost of Environmental Remediation and Pollution Control (ERPC), Cost of Environmental Laws Compliance and Penalty (ELCP), Donations and Charitable Contributions (DCC). The result reveals that environmental expenditure has significant effect on the performance of quoted oil companies in Nigeria.

Bassey, Oba and Onyah (2013) critically analyze the extent of implementation of environmental cost management and its impact on output of oil and gas companies in Nigeria from 2001 to 2010. The paper was aimed at ascertaining the extent to which implementation of environment cost management has impacted on the oil and gas industries in Nigeria. The study used multiple regression analytical technique. Findings revealed that there is a

significant relationship between the parameters that influence environmental cost management and output of oil and gas produced in Nigeria. Also, it was discovered that there are no established standards in Nigeria guiding environmental cost management in the oil and gas industries in Nigeria.

In a study on the Impact of Environmental Accounting and Reporting on Sustainable Development in Nigeria by Beredugo and Mefor, (2012). The study evaluated the relationship between environmental accounting and reporting and sustainable development in Nigeria. Pearson correlation coefficient and OLS were used for data analyses, and was discovered that there is a significant relationship between environmental accounting and reporting and sustainable development; that with environmental accounting encourage organizations to track their greenhouse gas (GHG) emissions and other environmental data against reduction targets, and there are consequences for noncompliance with environmental accounting and reporting.

In another study by Wibowo (2012), the study examined the impact of corporate social responsibility disclosure and profitability (measured by Return on Asset) using a sample of 25 firms from SRI-KEHATI Index and covering the period 2005 – 2010. Findings show that there is positive impact of the social performance to the profitability of the firms and also there is positive impact of the profitability of the company to the social performance of the firms.

Enahoro (2009) assessed the level of independence of tracking of costs impacting on the environment; level of efficiency and appropriateness of environmental costs and disclosure reporting. The research instruments utilized in the study were primary data survey and secondary data elucidation. For this purpose, cross-sectional and longitudinal content analyses were carried out. The test statistics applied in the study were the t-test statistics, Pearson Product-Moment correlation tests, ANOVA, and Multivariate Linear Regression Analysis. The study investigated best practice of environmental accounting among companies currently operating in Nigeria. Findings are that environmental operating expenditures are not charged independently of other expenditures. There is also, absence of costing system for tracking of externality costs. Environmental accounting disclosure does not however, take the same pattern among listed companies in Nigeria.

Lubomir and Dietrich (2009) analyze the effect of corporate environmental performance on financial performance in a transition economy. In particular, it assesses whether good environmental performance affects revenues, costs, or both, and if so, in which directions. To answer these questions, this study analyzes the links from environmental performance to revenues, costs, and profits using an unbalanced panel of Czech firms from the years 1996 to 1998. The analytical results indicate strongly that better environmental performance improves profitability by driving down costs more than it drives down revenues.

In another line of the study by Stefan Schaltegger and Marcus Wagner (2006) on managing and measuring the business case for sustainability; capturing the Relationship between Sustainability Performance, Business Competitiveness and Economic Performance. This introduction provides an overview of the subject of this book, namely how to manage the business case of sustainability. After providing a basic structure of how environmental and social management link to economic success through a number of pathways, various theoretical, empirical and normative approaches to analyze the subject are introduced. Subsequently, the basic link between sustainability performance, competitiveness and economic success is discussed, introducing an inversely U-shaped relationship as a generic case. The chapter then presents the logical corollary of how to measure sustainability performance, business competitiveness and economic success conceptually and empirically, before introducing a framework for the interaction of factors explaining the relationship of sustainability performance and competitiveness.

On the study Mehenna and Vernon (2004). Environmental accounting: an essential component of business strategy. The paper examining the integration of environmental policy with business policy is the focus of this research. The paper found that the business firm's strategy includes responding to capital and operating costs of pollution control equipment. This is caused by increasing public concerns over environmental issues, and by a recent government-led trend to incentive-based regulation.

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Kostas Karatzas, Nicolas Moussiopoulos and Agis Papadopoulos (2001), discuss about the use of the World Wide Web (www) as an information platform for dissemination of environmental information among the public. This article also discusses the results of the IRENIE Environmental Telematics project in Athens, Greece, including the Web-based geographical information system and its configuration. This specific project involves the application possibilities mentioned above, while integrating environmental monitoring, modeling and mapping over the Internet. It found that there is lack of proof to determine whether relevant authority has used this system effectively to improve the air quality.

Most of researchers have explored how the stringency of the environmental policy regime affects a company's ECD applicability and financial performance. Most of the studies which examined the relationship between environmental management and firm performance were inconsistent in their results.

Excluding the fact the country-specifics and other peculiarities may influence the outcome of studies conducted in both developed and developing countries because of divers ways corporations respond to environmental and social concerns in different crimes, a look at the previous studies particularly those by Nigeria authors show a large domination of samples comprising only of a single sub-sector.

METHODOLOGY

Research Design

Due to the nature of the study, ex-post facto research design and content analysis data were adopted in collecting data from financial reports and accounts from 2011-2017. Ex-post facto research design will be used to determine the effect of environmental cost disclosure and corporate performance of quoted Nigerian construction firms. Ex-post facto research design will be used because the data already exist. The researcher therefore, has no intention of manipulating the data.

Population of the Study

The population of the study covered six construction firms quoted on the Nigerian Stock Exchange as at 31st December 2017. The study covered seven years annual reports and accounts of these companies from 2011 to 2017.

The sample size was carried out on the six quoted companies of construction firms in Nigeria as listed on the NSE as at 31st December 2017. The researcher had intention of carrying all the companies along to the completion of this study.

Table 1: Quoted Nigerian construction firms

Arbico Plc.
Cappa & D'Alberto Plc.
Costain (West Africa) Plc.
G. Cappa Plc.
Julius Berger Nigeria Plc.
Roads Nigeria Plc.

Source: NSE Fact book, 2017.

Method of Data Analysis

The statistical model chosen for the analysis is multiple linear regression and analysis of variance (ANOVA), with the aid of SPSS 20.0 software. Two sets of hypotheses were advanced for confirmation in this study

Decision Rule

The decision for the hypotheses is to accept the alternative hypotheses if the f -value of the test statistic is positive and significant at 5% significance level.

Model Specification

The estimated model takes the following form:

$ROA_{it} = a_0 + \mu_i + \beta_1 ENVRC + \beta_2 ENVPPC_{it} + \beta_3 ENVPC_{it} + \beta_4 ENVRD_{it} \sum_{it}$ …..……...(i)

$ROA_{it} = a_0 + \mu_i + \beta_I ENVRC_{it} + \sum_{it}$ ……..…..…..(ii)

$ROA_{it} = a_0 + \mu_i + \beta_I ENVPPC_{it} + \sum_{it}$ ……..…….……(iii)

Where:

The dependent variable: Corporate performance (ROA) and

The Independent variables:

ENVRC = environmental restoration costs

ENVPPC = pollution prevention cost

a_0 = slope of the model

β_I, β_2, β_3, = coefficient of parameters.

DATA ANALYSIS AND DISCUSSION OF FIDINDINDS

Testing of Hypotheses

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The hypotheses formulated in this study are tested with the use of linear regression analysis. The decisions reached on hypotheses are based on the result obtained from regression calculation and the tabulated value of the regression distribution.

Decision Rule

If the computed value of regression is less than the critical value, the null hypotheses (Ho) are accepted and the alternative hypotheses (Hi) rejected. If the value of regression is greater than the critical value, the alternative hypotheses (Hi) are accepted and the null hypotheses (Ho) rejected.

Hypothesis One

Ho: Environmental restoration cost does not have significant effect on firms' return on assets.

Table 4.1a Summary of data collected for analysis on the effect of environmental restoration cost on firms' return on assets.

	2017	2016	2015	2014	2013	2012	2011
Return on assets	1.09	1.81	1.28	1.23	1.16	1.24	1.32
Eliminating soil contamination	10.00	12.00	16.00	15.00	18.00	21.00	22.00
Eliminating water contamination	17.00	16.00	18.00	18.00	15.00	17.00	15.00

Source: Researcher's computation, 2019

Table 4.1b**:** Regression co-efficient for environmental restoration cost on firms' return on assets

Model	**B**	**Beta**	**T = test**
Constant	23.230		T=2.524, P=.086
Eliminating soil contamination	.133	.275	T=.872,p=.447
Eliminating water contamination	1.246	.767	T=2.406, p=.095

Note: r^2 = .69, f(2,3) = 3.442, p= .167

a. Dependent variable: return on assets.

Source: Researcher's computation, 2019

Table 4.1c: Anova result for environmental restoration cost on firms' return on assets.

Model		Sum of Squares	Df	Mean Square	F
1	Regression	12.562	2	6.281	3.442
	Residual	5.475	3	1.825	
	Total	18.037	5		

a) Dependent variable: Return on assets

b) Predictors (constant): eliminating soil contamination, eliminating water contamination

Source: Researcher's computation, 2019

Environmental restoration cost explains 69 per cent of variation experienced in firms' return on assets, and this result is significant f(2,3) = 3.442, P > 0.05.

Decision

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Based on the analysis above the null hypothesis (Ho) is rejected while the alternative hypothesis (Hi) is accepted which states that environmental restoration cost has significant effect on firm's return on assets.

Hypothesis Two

Ho: Pollution control cost does not have significant effect on firms' return on assets.

Table 4.2a: Regression co-efficient of pollution prevention cost on firms' return on assets.

4.2a Summary of data collected for analysis on the effect of pollution prevention cost on firms' return on assets.

	2017	2016	2015	2014	2013	2012	2011
return on assets	1.09	1.81	1.28	1.23	1.16	1.24	1.32
Air pollution	4.00	4.00	7.00	4.00	5.00	7.00	5.00
Water pollution	9.00	10.00	10.00	7.00	8.00	10.00	10.00
Conservation of natural resources	11.00	10.00	111.00	10.00	11.00	12.00	13.00

Source: Researcher's computation, 2019

4.2b Regression coefficient for pollution prevention cost on firms' return on assets

Model	**B**	**Beta**	**T = test**
Constant	4.031		T=.167, P=.882
Air pollution	.104	.	T=.074,p=.947
Water pollution	.572	081	T=.483, p=.677
Conservation of natural resources	.449	.381	T=.176, p=.876
		.178	

Note: r^2 = .34, f (3,2) = .087, p= .961

a. Predictors: (Constant), conservation of natural resources, air pollution, water pollution.

Source: Researcher's computation, 2019

Table 4.2c**:** Anova result for pollution control cost on firms' return on assets.

Model		Sum of Squares	Df	Mean Square	F
1	Regression	2.075	3	.692	.087
	Residual	15.961	2	.7.981	
	Total	18.037	5		

a. Dependent Variable: Return on Asset

b. Predictors: (Constant), Conservation of natural resources, Water pollution, Air pollution

Source: Researcher's computation, 2019

Environmental pollution prevention cost explains 34 per cent of variation experienced in firms return on assets, but the result is not significant f(3,2) = .0, P > 0.05.

Decision

Based on the analysis above, the alternative hypothesis (HI) is rejected while the null hypothesis (H0) is accepted, which state that pollution control cost has no significant effect on firms' return on assets.

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Discussion of Results

Based on the outcome from the hypotheses tested, environmental management accounting has impacted positively on the corporate performance of consumer goods firms in Nigeria. This means that increase on the environmental management accounting can affect the operations of corporate firms.

This finding is in line with Ezejiofor, John-Akamelu, and Chigbo (2016) whose study found that environmental cost does not impact positively on revenue of corporate organizations in Nigeria, also that environmental cost impacted positively on profit generation of corporate organizations in Nigeria. Dabbas and Al-rawashdeh (2012) revealed that there is a significant relationship between the costs of environmental activities, such as the provision of donations/establishes non-profit projects, support projects/charities and the profitability of industrial companies. Also the finding of Wibowo (2012), show that there is positive impact of the social performance to the profitability of the firms. Amacha and Dastane (2017) on their result concluded that a strong and significant relationship exists between sustainability practices and financial performance of companies. Sayedeh, and saudah (2014), Lubomir and Dietrich (2009) on their analytical results indicate strongly that better environmental performance improves profitability by driving down costs more than it drives down revenues.

SUMMARY OF THE FINDINGS, CONCLUSION, RECOMMENDATIONS

Summary of the Findings:

The following are the summaries of the findings:

1. Environmental restoration cost has significant effect of firm's return on assets.
2. Environmental pollution prevention cost has no significant effect on firm's return on assets.

Conclusion

From the empirical results, environmental management accounting significantly and positively relates to corporate performance of the construction firms in Nigeria. This indicates that continuous environmental evaluation handled in an acceptable way garners sales and therefore improved income. Compliance of environmental laws also significantly positively relate to perceived financial performance.

it can be concluded that environmental related cost management positively influence firm's profitability and enhance organizational performance, that large firms significantly reports and discloses environmental related information, also that environmental friendly organization enjoys high level of corporate cooperativeness. Measuring performance and setting targets is a critical component for organizations to become more productive, more profitable, and more sustainable.

5.3 Recommendations.

Based on the finding of this study, the researcher recommends as follows:

1. That firms should make policies that will prevent environmental pollution
2. That firms are encouraged to decrease their corporate social responsibility cost in order to increase firms' return on assets.
3. That firms should improve on research and development cost in order to widen their scope and innovation despite all odds.

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