

**ENVIRONMENTAL COSTS ACCOUNTING AND REPORTING AND CORPORATE
PERFORMANCE: EMPIRICAL EVIDENCE FROM MARKETING OIL AND GAS
COMPANIES IN NIGERIA: 2007 – 2016**

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Abstract

The present study aim at examining the effect of environmental accounting measured by Remediation and Pollution Control cost (EWMRPCC) and Environmental Compensation Cost (ECC) on performance – measured by Return on assets of marketing oil and gas companies in Nigeria from 2007 – 2016. Data for this research study were secondary data generated from Annual Reports and Accounts of ten (10) quoted marketing oil and gas companies on the Nigerian stock exchange from 2007 - 2016. The data were analyzed using multiple regression analysis through the use of econometric model specified with aid of SPSS version 20. The findings revealed that Environmental waste management, Remediation and Pollution Control cost (EWMRPCC) do not significantly affect ROA of oil and gas companies in Nigeria, also, Environmental Compensation Cost (ECC) does not exert significant influence on ROA oil and gas companies in Nigeria. The study recommended that Government should make Environmental Reporting in annual reports obligatory since most companies hardly report their environmental activities in their report; Corporate organizations on their part should ensure that they comply with the Nigerian environmental laws in order to enhancing their performances. Companies should contribute towards sustainable environment by innovating and Improving their products and processes in order to use raw materials more efficiently, reduce the waste generated from their processes, improve the waste disposal methods and improve the work conditions. Companies should adopt standardized reporting and disclosure of environmental issues for the purpose of control and measurements of performance. Accountants should be trained on environmental accounting.

Introduction

Companies' approach to the environment is regarded as one of the major factors influencing corporate performance in Nigeria Adediran, S.A & Alade, S. O. (2013), the increase in global environmental awareness and the campaign for sustainable economic development is redirecting the attention of

firms towards environmental costs. Production activities within the environment have resulted to resources depletion and environmental degradation. These activities have further led to the depletion of ozone layer, thereby causing imbalance in the environmental system. Consequently, the

increased concern about environmental degradation, resources depletion and the sustainability of economic activities has made Environmental Accounting and reporting an area of global concerns in recent times.

In Nigeria, Field research suggests that gas flaring, oil spillage, and pipeline networks – the by-products of oil activities in Niger Delta - might have contributed to the environmental degradation in that region directly, and or indirectly (Oyelara-Oyeyinka and Okoosi, 1995). While a network of pipelines crisscross communities and homes, gas flaring is described as an unpleasant sight to populations living next to them. According to OPEC, Nigeria produced a total of 22.8 billion barrels of oil from 1958 to 2003 and from Shell's record, an average of a thousand cubic feet of gas is flared per barrel and when computed, it implies that 22.8 trillion was flared during this period (Rowell, Marriot and Stockman, 2005). However, decades of gas flaring and its impact on the environment remains a contentious issue, a sore point in the relationship between oil communities, oil companies and governments in Nigeria and, less so in developed countries with oil resources.

Shell's update in the Niger Delta shows that 10,400 tones spilled in 2001, 2,700 in 2002 and 1300 tones or 9,900 barrels in 2003 were recorded but, like the NNPC figures are not independently assessed (SPDC, 2003). The import of these figures, suggest that some communities in Niger Delta in or near high density oil activity fields experience an average of one spill every week. The oil spills either happened in their backyard or flowed along the numerous distributaries in Niger Delta away from the communities where

they originally occurred (Nelson Takon (2014).

in 2011, it was reported that Bonga oil spill along the creek in the Niger Delta where over 35,000 barrels of crude oil was loss and unaccountable damages and injuries were sustained by the host community (Chinedu,2012), similarly, in 2008, Bodo region oil spill covering over 923 square kilometers. Serious environmental damage caused by frequent oil spills and their impact on marine lives has resulted to lack of it and high cost of the ones available (Chinedu, 2012).

However, National Oil Spill Detection and Response Agency, NOSDRA has called on Shell Nigeria Exploration and Petroleum Company Limited, SNEPCO, to urgently pay \$3.8 billion as damages to 350 communities in Niger Delta region. It would be recalled that Federal High Court in Lagos, fined SNEPCO the sum of \$3.8 billion as a result of damages and desecration of the people's environment caused by Bonga Oil Spillage in 2011. Chairman, Governing Board of NOSDRA, Dr. Ayo Akinyenlure, in a statement in Abuja, said "due to pollution of people's environment, the court levied the oil firm \$1.8 as compensation and punitive damages." (The Guardian, 9 July 2018). Also, other oil and gas companies whose activities have affected the environment have voluntarily borne these costs. How does this cost affect the performance of these organizations? The increased concern about environmental degradation, resources depletion and the sustainability of economic activities has made Environmental Accounting and reporting an area of global concerns in recent times.

Environmental Accounting is a new concept that tries to recognize the side effects of

production and consumption on the physical environment (Adediran 2010). According to Magara, Aming'a & Momanyi (2015) Environmental accounting involves the identification, measurement and allocation of environmental costs, and the integration of these costs into business and encompasses the way of communicating such information to the companies' stakeholders. Environmental accounting generates reports for both internal use, providing environmental information to help make management decisions on controlling overhead, capital budgeting and pricing, and external use, disclosing environmental information of interest to the government, public and to the financial community (Eze, J. C; Nweze, A. U & Enekwe, C. I (2016).

It is a comprehensive approach to ensure good corporate governance that includes transparency in its societal activities (Gray, Bebbington and Walter 1993). Accounting for environment helps in accurate assessment of cost and benefits of environmental preservation measures of companies (Schaltegger, 2000). It provides a common framework for organizations to identify and account for past, present and future environmental cost to support managerial decision-making, control and public disclosure (KPMG & UNEP, 2006).

Available literatures revealed a significant relationship between total environment cost accounting disclosure and profit margin when a study was carried out on the effects of environmental disclosure on financial performance Norhasimah et' al (2015); Daniel and Ambrose (2013); Al-Tuwaijiet'al (2004). However, the present study aim at examining the relationship between environmental accounting measured by Remediation and Pollution Control cost (EWMRPCC) and Environmental Compensation Cost (ECC) and

performance – measured by Return on assets of oil and gas companies in Nigeria from 2007 – 2016.

Theories

Legitimacy Theory

According to the legitimacy theory, a company's performance is legitimate when it is judged to be fair and worthy of support, that is, when it is socially accepted. Legitimacy theory is derived from the concept of organizational legitimacy, which has been defined by Dowling and Pfeffer (1975, p. 122) as:

... a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy.

Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies. In adopting a legitimacy theory perspective, a company would voluntarily report on activities if management perceived that those activities were expected by the communities in which it operates (Deegan 2002; deegan, Rankin and Voght 2000; Cormier and Gordon 2001). Legitimacy theory relies on the notion that there is a 'social contract' between a company and the society in which it operates (Deegan 2000; Deegan 2002; Mathew 1993; Patten 1991; 1992).

The social contract is used to represent the myriad expectations society has about how an organization should conduct its operations (Deegan 2000; Mathew 1993). Specifically, it is considered that an

organization's survival will be threatened if society perceives that the organization has breached its social contract (Deegan 2002). Where society is not satisfied that the organization is operating in a legitimate manner, society will revoke the organization's 'contract' to continue its operations (Deegan and Rankin 1997). Legitimacy theory offers the notions 'legitimacy gap' and 'legitimacy strategies'.

Lindblom (1994) refers to a 'legitimacy gap', that is, the difference between the expectations of the 'relevant publics' relating to how an organization should act, and how the organization does act. Lindblom suggests that when a legitimacy gap occurs, there is a threat to the entity's legitimacy and when a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy.

A process of legitimating may be engaged in by a company either to gain or to extend legitimacy, to maintain its level of current legitimacy, or to repair or to defend its lost or threatened legitimacy. Researcher, argues that where managers perceive that organization's operations do not commensurate with the social contract then, pursuant to legitimacy theory, remedial strategies are predicted. Because the theory is based on perceptions, any remedial strategies implemented by managers, to have effect on external parties, must be accompanied by Disclosure (Deegan C.(2002); O'Donovan G.(2002); Magara, Aming'a & Momanyi (2015).

Waste Management / Remediation Cost

Waste is defined by Nath 2014, as "any substance or object which the holder discards or intends to discharge". Every establishment produces waste: it could be either industrial

or human and could cause environmental and human hazard if not properly managed.

Waste management therefore, means the summary of efforts taken to prevent the negative effect of waste. It consists of; reduction of waste, reuse of waste, recycling of waste, compositing, energy recovery and final disposal (Addul-Rahman, 2015; Bontoux & Leone, 1997), to sustain profit, the environment which business operates must be properly taken care of. A neglected environment may likely lead to unfavourable business environment. This may also lead to unnecessary additional cost to business operation. It is therefore necessary for downstream companies to manage their waste and disclose them in their accounts. Remediation on the other hand is a total clean up of contaminants.

Environmental Compensation Cost

Environmental impacts are increasing due to human activities. The overuse of the benefits nature provides us is the direct result of our failure to put a price on these benefits. One way of addressing this is to require environmental compensation measures that offset the loss associated with the damage resources. Environmental compensation is provided in the form of resource-based (may not be monetary) payments that protect enhance, restore or otherwise improve similar resources.

This concept is anchored on polluter pays principle (PPP). The primary benefit of compensation is to reduce the social welfare loss associated with a continued decline in the benefits nature provides us; Biodiversity and ecosystem services. Compensation helps to reduce this decline by implicitly "pricing" these benefits and creating an incentive for actors to incorporate these values into their daily decision-making. The failure to price

nature's benefits leads them to appear "value-less" under the current business as usual scenario.

Return on Assets

Return on Asset is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its asset to generate earnings. It is calculated by dividing a company's annual earnings by its total assets. ROA is displayed as a percentage.

Formula:

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

ROA tells you what earnings were generated from invested capital (assets)

Benefits of Environmental Accounting

Environmental cost is one of the many different types of costs businesses incur as they provide goods and services to their customers, and environmental performance is one of the many important measures of business success. Environmental costs and performance deserve management attention for the following reasons:

- a) Many environmental costs can be significantly reduced or eliminated as a result of business decisions, ranging from operational and housekeeping changes, to investment in "greener" process technology, to redesign of processes/products.
- b) Environmental costs (and, thus, potential cost savings) may be obscured in overhead accounts or otherwise overlooked. This would result in wrong cost information and poor managerial decision and reporting.
- c) Many companies have discovered that environmental costs can be offset by generating revenues through sale of

waste, by-products or transferable pollution allowances, or licensing of clean technologies.

- d) Better management of environmental costs can result in improved environmental performance and significant benefits to human health as well as business success.

Understanding the environmental costs and performance of processes and products can promote more accurate costing and pricing of products and can aid companies in the design of more environmentally preferable processes, products, and services for the future.

- f) Competitive advantage with customers can result from processes, products, and services that can be demonstrated to be environmentally preferable.(INFORM; 1992).

Accounting for environmental costs and performance can support a company's development and operation of an overall environmental management system. Such a system will soon be a necessity for companies engaged in international trade due to international consensus standard ISO 14001, developed by the international organization for Standardization.

Environmental accounting therefore aims at achieving sustainable development, maintaining a favorable relationship with the community, and pursuing effective and efficient environmental conservation activities. The accounting procedure allows a company to identify the cost of environmental conservation during the normal course of business, identify benefit gained from such activities, provide the best possible means of quantitative measurement (monetary value or physical units) and support communication of its

results in the area of environmental responsibilities.

f. Environmental Accounting can lead to new inventions because organizations can recycle what was formerly considered waste to invent new products. (Dorweiler 2002; Adediran, S.A & Alade, S. O (2013)

Reasons for Companies to Report their Environmental Activities in Nigeria

There are several reasons environmental issues should be incorporated into the companies' Annual Reports.

Some of them include;

1. Environmental Accounting may lead to the avoidance of penalty or fines imposed by Environmental Protection Agency in the countries where such legislation exists.
2. Environmental Accounting promotes research and development which will eventually translate into significant reduction in many environmental costs through the design of more environmental friendly production process. (Medley 1997).
3. Environmental Accounting can attract more investors because investors sometimes need information on environmental performance and expenditure to make decisions.
4. Environmental Accounting can promote more accurate costing and pricing of product.
5. Environmental Accounting may attract incentives from the government in form of tax reduction and subsidies.
6. Environmental Accounting can lead to the development of Environment Management System (EMS) which is necessary for companies engaged in International Trade. (Hutchinson 2002 and Lethmathe & Doost 2000; Adediran, S.A & Alade, S. O (2013).

Environmental Cost Accounting and Stakeholders' Information Needs

Obviously, shareholders care for the attitude of their company regarding the environment. They pay attention to the economic consequence of environmental behaviour of the business and how this behaviour impacts on return on investment. Other users of accounting information, such as customers, suppliers, competing companies, state bodies, the public, mass media, movements and initiatives concerned with environmental protection, etc; pay attention also to the company approach to the environment. Investors constantly demand that companies should go for environmental accounting strategies that will reduce environmental damage and increase shareholders' value. The objective of sound environmental management is to enhance environmental report by reducing the environmental impact while increasing the enterprise value (Tochukwu Gloria Okafor (2018).

According to Yakhou & Dorweiler (2003), Companies are expected to partake in environmental accounting for the following reasons:

1. to let the consumers know that the company is taking their responsibilities seriously
2. to act in accordance with the national guidelines
3. To abide by the financial reporting requirements.
4. To show the company's concerns on issues of environment and communicating such to a range of stakeholders.

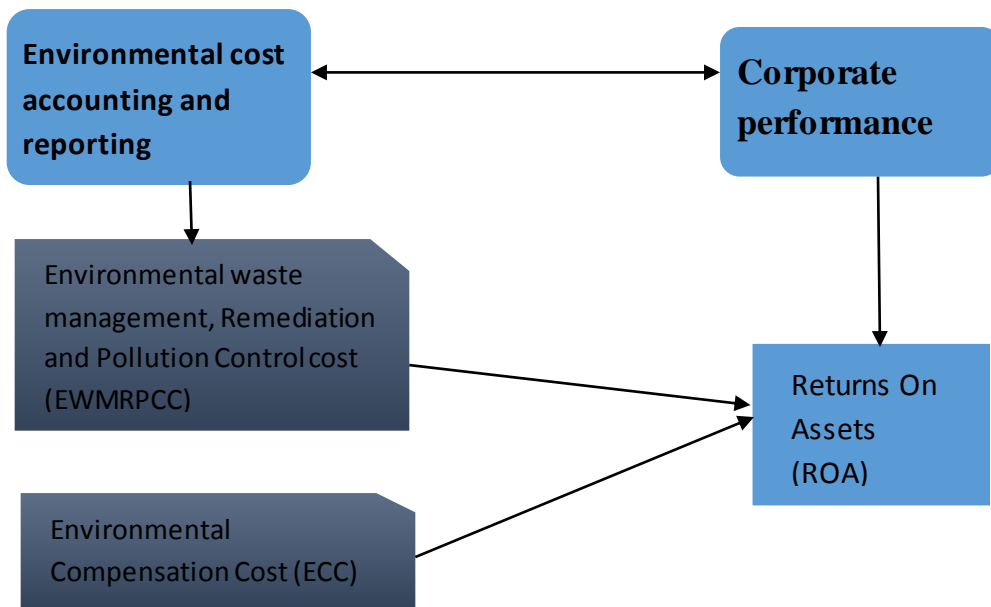


Fig.1: Operational Conceptual Framework

Empirical Review

Several studies have been conducted on environmental accounting both national and international. From Italy, Francesca B. et al (2016) examined Waste Management and Financial Performance: Evidence from Italian Companies; Management Institution conference. The article deals with Italian companies operating in collection, treatment and disposal of municipal solid waste. The aim was to analyse the profitability of these companies and try to understand whether this relates to waste management best practices, in particular separate collection. The empirical analysis carried out on a population of 298 Italian companies enabled them to study the profitability of this sector. However, combining this information with that concerning separate waste collection, a clear relationship – both positive and negative – is not identifiable.

Tochukwu Gloria Okafor (2018) studied Environmental Costs Accounting and Reporting on Firm Financial Performance: A Survey of Quoted Nigerian Oil Companies.

The study is aimed at ascertaining the effect of environmental costs on firm performance. To achieve this objective, the study made use of financial reports of Oil and Gas Companies quoted in the Nigerian Stock Exchange Market from years 2006-2015. Regression analysis was employed with the aid of Statistical Package for Social Sciences (SPSS). The results of the statistical analysis indicate that better environmental performance positively impact business value of an organization. Moreover, environmental accounting provides the organization an opportunity to reduce environmental and social costs and improve their performance.

Actilfurueze M.S.K Cna1, Lyndon Miekoromo Etale, & Bingilar Paymaster Frank (2013) The Impact of Environmental Cost on Corporate Performance: A Study of Oil Companies in Niger Delta States of Nigeria. The study examined the impact of environmental cost on corporate performance in oil companies in the Niger Delta States of Nigeria. The field

survey methodology was utilized involving a selected sample of twelve oil companies. The multiple regression analysis was explored to test the hypothesis. An investigation was undertaken into the possible relationship between corporate performance and three selected indicators of sustainable business practices: Community Development Cost (CDC), Waste Management Cost (WMC) and Employee Health and Safety Cost (EHSC). The study revealed that sustainable business practices and corporate performance is significantly related. And sustainability may be a possible tool for corporate conflict resolution as evidenced in the reduction of fines, penalties and compensations paid to host communities of oil companies. Therefore, the researchers recommended that the management of oil companies in the Niger Delta States of Nigeria develop a well articulated environmental costing system in order to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity and eventually improve corporate performance.

Gap

The empirical review indicated that no study has been carried out on oil and gas marketing companies in Nigeria. This study aim at filling this gap.

Methodology

This research used descriptive analysis that describes the state as well as the phenomenon of an object accompanied by statistical data. Data for this research study were secondary data generated from Annual Reports and Accounts of ten (10) quoted oil and gas companies on the Nigerian stock exchange from 2007 - 2016. The data were then analyzed using multiple regression analysis through the use of econometric

model specified below with aid of SPSS version 20.

Model Specification and Variables Measurement

Using a single dependent variable return on assets (ROA) and two independent variables; The model was specified as follows;

$$ROA = (\text{EWMRPCC} + \text{ECC})$$

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

$$ROA = \beta_0 + \beta_1 \text{EWMRPCC} + \beta_2 \text{ECC} + e$$

..... 1

Where:

ROA = Return on Asset

EWMRPCC = Environmental waste management, Remediation and Pollution Control cost

ECC = Environmental Compensation Cost

β_0 = Intercept

e = error term

$\beta_1 \beta_2$ = the regression coefficient

Measurement of variables

EWMRPCC= Total amount spent on Waste Management, Remediation and Pollution control

ECC = Total amount spent on community development

$$ROA = \frac{\text{Net Profit}}{\text{Total assets}}$$

Hypotheses

Ho1: Environmental waste management, Remediation and Pollution Control cost (EWMRPCC) do not significantly affect ROA of oil and gas companies in Nigeria.

Ho2: Environmental Compensation Cost (ECC) does not exert significant influence on ROA oil and gas companies in Nigeria.

Discussion and Results

Table 1

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.220 ^a	.048	.029	.04618	1.854

a. Predictors: (Constant), Environmental Compensation Cost, Environmental waste management, Remediation and Pollution Control cost

b. Dependent Variable: Returns on Asset

Table 1 shows the model summary with a correlation coefficient 'R' = .220 and $R^2 = .048$ coefficient of determination. Therefore, the predictors variables used in regression model have described 2.9% of the variations taking place in Return on Asset (ROA) in Nigeria. Also, the Durbin Watson value of 1.854 indicates that there is no problem of autocorrelation among the predictor variables.

Table 2

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.010	2	.005	2.457	.091 ^b
	Residual	.207	97	.002		
	Total	.217	99			

a. Dependent Variable: Returns on Asset

b. Predictors: (Constant), Environmental Compensation Cost, Environmental waste management, Remediation and Pollution Control cost

The ANOVA table 2 above is aim at testing whether the overall regression model is a good fit for the data. The result shows that the predictor variables statistically significantly predict the criterion variable, with F-value = 2.457, meaning the regression model is a good fit of the data

Table 3

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.035	.011		3.198	.002
	Environmental waste management, Remediation and Pollution Control cost	1.192E-008	.000	.212	2.126	.036
	Environmental Compensation Cost	-5.556E-010	.000	-.081	-.818	.415

a. Dependent Variable: Returns on Asset

From table 3 testing the hypotheses, the analysis revealed that Environmental waste management, Remediation and Pollution Control cost (EWMRPCC) has a positive ($\beta = .212$; $t = 2.126$; $\text{sig.} = .036$) but insignificant effect on ROA of oil and gas companies in Nigeria. The null hypothesis which state thus “Environmental waste management, Remediation and Pollution Control cost (EWMRPCC) do not significantly affect ROA of oil and gas companies in Nigeria” is rejected.

Secondly, Environmental Compensation Cost (ECC) does not exert significant influence on ROA oil and gas companies in Nigeria. The study revealed an inverse ($\beta = -.081$; $t = -.818$; $\text{sig.} = .415$) and insignificant relationship between the two variables.

Summary of Findings, Conclusion and Recommendations

The present study aim at examining the effect of environmental accounting measured by Remediation and Pollution Control cost (EWMRPCC) and Environmental Compensation Cost (ECC) on performance – measured by Return on assets of marketing oil and gas companies in Nigeria from 2007 – 2016. The findings revealed that Environmental waste management, Remediation and Pollution Control cost (EWMRPCC) do not significantly affect ROA of oil and gas companies in Nigeria, also, Environmental Compensation Cost (ECC) does not exert significant influence on ROA oil and gas companies in Nigeria. This findings concord the study of Francesca B. et al (2016) who examined Waste Management and

Financial Performance: Evidence from Italian Companies. Management Institution conference.

Conclusively, since Environmental accounting is an inclusive aspect of accounting which generates reports for both internal use and providing environmental information to help make management decisions on controlling overhead, capital budgeting and pricing, and external use, disclosing environmental information is of paramount interest now to the government, public and to the financial community.

Based on the findings of this study the following recommendations are made:

1. Government should make Environmental Reporting in annual reports obligatory since most companies hardly report their environmental activities in their report;
2. Corporate organizations on their part should ensure that they comply with the Nigerian environmental laws in order to enhancing their performances.
3. Companies should contribute towards sustainable environment by innovating and Improving their products and processes in order to use raw materials more efficiently, reduce the waste generated from their processes, improve the waste disposal methods and improve the work conditions.
4. Companies should adopt standardized reporting and disclosure of environmental issues for the purpose of control and measurements of performance.. Accountants should be trained on environmental accounting.

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Appendix



COST OF WASTE MAMNAGEMENT OF 10 PETROLEUM MARKETING FIRMS FROM 2007-2016

S/N	FIRMS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Forte Oil Plc	1,298,761	1,799,390	2,288,956	1,512,794	1,517,937	2,069,865	1,845,556	1,085,383	1,923,476	1,085,383
2	Mobil Nig. Plc	1,648,970	1,649,019	1,833,082	1,989,714	2,084,860	1,894,106	2,189,638	2,111,866	4,470,091	6,272,004
3	Conoil Plc	1,136,148	1,148,728	1,250,040	1,395,447	1,465,615	1,495,220	1,681,465	1,719,272	188,543	1,923,352
4	Oando Plc	1,100,293	1,456,365	1,868,476	1,483,300	1,110,455	1,274,862	1,826,713	1,603,589	1,752,128	1,939,965
5	MRS Plc	820,819	712,129	808,013	908,290	933,073	923,383	1,563,330	1,589,911	1,555,932	1,498,434
6	Total Plc	4,415,076	1,587,088	1,419,721	1,567,214	1,665,731	1,572,437	1,981,385	2,123,310	2,271,117	2,351,704
7	Eterna Oil & Gas Plc	1,742,101	1,205,181	1,376,584	1,948,289	1,608,981	1,951,863	1,870,363	1,442,836	1,416,667	1,427,527
8	Beco Petroleum Plc	1,732,820	1,070,302	1,341,666	1,182,155	1,914,324	1,732,820	1,594,125	3,188,250	3,476,021	3,526,680
9	Rak Unity Pet. Plc	1,240,000	1,129,000	1,846,000	1,257,000	1,445,000	1,389,000	1,086,000	1,380,000	3,820,000	2,850,000
10	Capital Oil Plc	850,000	1,144,200	1,349,614	1,962,750	1,355,863	2,198,750	1,112,650	1,027,630	1,295,852	1,350,036

Source: Firms Annual Report & Accounts

ENVIRONMENTAL COMPENSATION COST OF 10 PETROLEUM MARKETING FIRMS FROM 2007-2016

S/N	FIRMS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Forte Oil Plc	2,000,000	3,000,000	3,400,000	3,000,000	3,200,000	3,000,000	4,000,000	5,700,000	6,870,520	7,120,227
2	Mobil Nig. Plc	1,649,079	1,833,082	1,989,714	1,853,098	2,200,958	2,498,075	3,661,186	5,622,018	8,784,089	8,994,598
3	Conoil Plc	7,500,000	7,500,000	8,700,000	9,200,000	9,700,000	11,000,000	12,750,000	14,950,338	14,550,620	14,825,931
4	Oando Plc	1,392,409	1,515,738	3,478,348	8,082,474	10,455,432	17,862,112	12,843,200	19,093,423	19,693,562	19,790,167
5	MRS Plc	1,870,000	1,365,000	1,000,000	2,600,000	2,830,000	3,223,000	3,400,000	3,820,000	4,791,800	4,874,454
6	Total Plc	3,000,000	5,410,000	6,588,000	8,378,000	10,290,000	14,818,000	32,546,514	27,080,764	34,893,045	35,188,206
7	Eterna Oil & Gas Plc	800,000	870,000	1,300,000	1,464,000	1,734,400	2,796,500	3,902,300	3,816,011	3,273,353	3,583,137
8	Beco Petroleum Plc	1,006,654	1,107,321	1,118,100	1,133,391	1,165,841	1,189,076	1,147,304	1,520,000	1,716,976	1,858,488
9	Rak Unity Pet. Plc	1,700,000	1,500,000	2,300,000	2,000,000	1,800,000	2,000,000	2,500,000	3,000,000	3,155,000	3,200,000
10	Capital Oil Plc	1,460,000	1,540,000	1,655,000	1,700,000	1,670,000	1,720,000	1,800,000	1,850,000	1,876,000	1,920,000

Source: Firms Annual Report & Accounts



RETURN ON ASSET OF 10 PETROLEUM MARKETING FIRMS FROM 2007-2016

(%)

S/N	FIRMS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Forte Oil Plc	0.07	0.17	0.07	(0.85)	0.30	(0.46)	0.01	0.07	0.02	0.17
2	Mobil Nig. Plc	0.06	0.08	0.18	0.15	0.13	0.08	0.08	0.12	0.09	0.13
3	Conoil Plc	0.08	0.06	0.02	0.03	0.01	0.04	0.01	0.03	0.01	0.03
4	Oando Plc	0.03	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.03	0.03
5	MRS Plc	0.07	0.01	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01
6	Total Plc	0.09	0.10	0.07	0.09	0.06	0.06	0.06	0.08	0.06	0.06
7	Eterna Oil & Gas Plc	0.10	0.05	0.02	0.06	0.06	0.04	0.11	0.07	0.07	0.11
8	Beco Petroleum Plc	0.07	0.08	0.04	0.04	0.08	0.07	0.07	0.02	0.04	0.05
9	Rak Unity Pet. Plc	0.03	0.03	0.02	0.01	0.01	0.01	0.04	0.02	0.03	0.03
10	Capital Oil Plc	0.01	0.02	0.03	0.02	0.01	0.03	0.07	0.07	0.03	0.03

Source: Firms Annual Report & Accounts

ROA= Profit After Tax/Total Asset