

# Environmental Perpetuity Cost and Earning Yields of Oil and Gas Marketing Firms: Nigeria's experience

Nwafor, Chidi Benson<sup>a</sup>, Asuquo, Akabom Ita<sup>b</sup>, Inyang, Inyang Ochi<sup>c</sup> & Inyang, Ethel Ohanya<sup>d</sup>

<sup>a</sup>Ph.D. Student, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria

<sup>b</sup>Associate Professor, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria

<sup>c</sup>Lecturer, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria

<sup>d</sup>Lecturer, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria

Email: <sup>a</sup>[chidibenson@gmail.com](mailto:chidibenson@gmail.com), <sup>b</sup>[drakabom3@gmail.com](mailto:drakabom3@gmail.com), <sup>c</sup>[inyangochi@gmail.com](mailto:inyangochi@gmail.com), <sup>d</sup>[ethelinyang@gmail.com](mailto:ethelinyang@gmail.com)

**Abstract:** The study examined the environmental perpetuity cost and earning yields of oil and gas marketing firms: Nigeria's experience. Its main objective was: to specifically examine the extent to which environmental perpetuity costs influence earning yields of oil and gas marketing firms taking evidence from Nigeria. To achieve the objective, an ex-post facto design was employed and relevant data were obtained from secondary source. Multiple regression analytical tool was used to analyse the data in order to verify the hypotheses formulated for the study. The findings indicated that donations as a perpetuity cost positively influences earning yield though the influence is not a very strong one; support/social cost to destitute and less privileged significantly affect earnings per share; support to motherless babies' homes and others significantly affect earnings per share; and donations/ social cost to non-governmental organization significantly affect earnings per share. The researchers then recommended that government should encourage listed firms to disclose their donations which will strengthen the earning per share of these firms via increased employee productivity.

**Keywords:** Cost, Earning, Environmental, Firms, Marketing, Perpetuity, Yields,

## 1. Introduction

The Nigerian economy is anchored on the revenue accruing from oil exploration through continuous inflow of oil and gas. The host people who live in the shadow of their environment embrace the pattern of accounting for perpetuity and its sustainable growth. Crowther (2000), posit that it is a method of interaction within the society. Blowfield and Murray (2008) viewed sustainability as a way of improving on the high quality of life which involves organization to restructure their performance which is built on environmental perspective (Helg, 2007). Sustainable development encapsulates various areas of life, it involves absolute respect of the operators. In this process, government provides the needed quality and infrastructural facilities. The aim of every business is to acquire successful objectives on how social disclosure produces effective reputation by improving on the market share. Social cost as a way of increasing cost of production and could lead to a decline in outcome. On the other hand, social costs produce negative effect on performance. However, costs with benefits improve the qualitative aspect of the communities as well as the entire society. The study therefore is to determine how donations made to disabled persons, less privilege and non- governmental organizations significantly affect earnings per share;

## 2. Literature review

The study adopted corporate social performance. It shows that prices are not comprehensively reflected on consumption of a product or service. The theory is embedded on manufacturers and those who consume by not

bearing the costs of the economic activity. It depicts that number of those who have the capability to improve the aggregate utility and how it could be beneficial. Also, when there is conflict, it could lead to problems that will involve other groups as well as influencing the policy. **Bowen (1953)** opined that social responsibility of businessmen is voluntarily for them to follow the policies which are preferable as values of the society (**Mele, 2014**). **LanMitroff (1983)** view corporations as an entity is obligated to carry out group responsibility. These postulations capture group of persons who are part of the business such as employees, shareholders etc.

## 2.1 Conceptual framework

Agriculture is a catalyst of economic growth in Nigeria. The effect of its operations has brought devastations on many areas where the oil resources are extracted. Social Cost Accounting in Nigeria has a negative impact on the oil industry. Community that produces oil requires environmental protection in order to affect the host communities. Nigeria today is suffering from poor infrastructural development especially in the area of road construction and this lead to unassailable transportation networks. **Coker (2008)** confirmed most companies are hostile as a result of sourcing energy. The scholar is in tandem that the practice of social accounting is shaped by social-economic factor. Social cost is aimed on socio-economic development such as health care provision etc. The existence of social cost has accrued because of continuous growth that made most of the organizations to inject more funds socially. The purpose of this concept is proffered in assisting the society to provide various facilities and how it could be record, analyzed, interpreted and reported proficiently and professionally. The reporting of non-financial information has narrative disclosure which is accorded statistically with much social reporting and the process of comparing with other companies makes it cumbersome. Due to a positive bias, most companies report the available vital information in social reports when there is no legislations binding social cost reporting.

## 2.2 Accounting for environmental perpetuity cost

**Daly and Cobb (1989)** agree that social accounting conflicts in arises when the community and organization, it is largely with a normative concept that enlarges the scope of accounting: It is comprised of honor stakeholders' information right balance corporate strengths with corporate social responsibility etc. Social accounting is meant to facilitate the achievement of the organizational objectives. It is focused with substantial self-reporting, individual reports and organizations, for example; it increases information for decision-making, products are genuine and there is availability of market development. It is concerned with how costs are structured in an organization. Therefore, inflow of message is communicated with the natural environment. It embraces personal reporting through companies, etc. **Daly and Cobb (1989)**, **Asuquo, Dan, Odey, Linus, Uklala, and Tapang (2021)**; **Effiong and Asuquo (2010)** assessed environmental accounting on sustainable economic welfare. It depicts that financial issues rises when there is environmental legislation. Also inputs, outputs of the organization are centred on great success when there is an environmental impact. Social accounting is independently audited and sustainability accounts are vitally produced. According to Global Reporting Initiative, fair trade organizations are known first in publishing audited accounts in public limited company. It is generally known that Canadian Institute of Chartered Accountants featured on returns or benefits. In this case, if there is no gain, compensations are done to those persons that are affected. Social accountings are not captured in accounting statement rather based on how to create value toward increasing financial performance.

## 2.3 Empirical studies

**Griffin and Mahon (1997)** investigated corporate social performance and financial performance. The study adopted secondary source of data using panel data analysis. The study discovered that corporate social performance is positively related with Return on asset. The study concluded that corporate social affected performance. **Balmer and Greyser (2006)** conducted corporate social responsibility on firm performance. It was found that corporate social responsibility affected firms' profit. **Tinker and Gray (2003)** examined social disclosures in the market place. **Hazilla and Kopp (1990)** posited that accounting raises cost of production. **Monk, Richmond and Quarter (2003)** propounded that cost is measured in terms of quality. **Corson (2002)**, **Asuquo (2012)**, **Asuquo, Dan, and Effiong, (2020)** simplified on how profits are maximized when there the volume increases and consideration is given to environmental sustainability.

## 3. Methodology

### 3.1 Research design

Ex-post facto design and secondary sources were employed using annual reports of the Nigerian Securities and Exchange Commission. Ordinary least square of multiple regression technique was used. F-statistics determines the overall significance of the test variables. Ordinary least square was used to see the effect of independent variables on dependent variable, as expressed thus:

### 3.2 Model specification

$$EPS = f(DDP, MCW, NGO)$$

$$EPS = b_0 + b_1DDP + b_2MCW + b_3NGO + \varepsilon$$

EPS = Earnings per share

DDP = Destitute and less privileged

MCW = Motherless babies' homes, children and women empowerment

NGO = Non-governmental organizations

$a_0$  = regression constant;

$a_i$  = parameters

$\varepsilon$  = stochastic error

### 4. Presentation of data

The presentation of data on EPS, DDP, MCW, NGO extracted from the annual reports of MOBIL, FORTE OIL, CONOI, OANDO

**Table 4.1. Mobil environmental perpetuity costs**

YEAR	DDP (₦'000)	MCW (₦'000)	NGO (₦'000)	EPS (₦'000)
1	600	3000	2000	3.45
2	460	2100	2700	2.46
3	500	3000	1800	6.06
4	280	1000	3000	7.32
5	350	2000	1100	10.08
6	400	382	2184	7.14
7	395	980	3400	8.54
8	280	2700	2000	9.76
9	620	3000	2700	9.46
10	500	1800	3000	12.93
11	400	1000	2400	12.14
12	250	980	3200	8.56
13	300	750	3000	9.65
14	2500	1000	2100	17.73
15	3500	2000	4000	13.51

Source: Annual reports of Mobil extracted by Authors, 2021

**Table 4.2. Total environmental perpetuity costs**

YEAR	DDP (₦'000)	MCW (₦'000)	NGO (₦'000)	EPS (₦'000)
1	1300	600	900	7.40
2	1100	900	1200	8.23
3	1200	500	1000	9.04

4	1000	700	1500	8.18
5	600	800	1000	10.65
6	1000	800	1100	7.41
7	1100	2300	200	9.59
8	1200	1100	700	12.94
9	1400	1800	1000	11.69
10	1200	1400	200	16.01
11	800	2400	600	11.23
12	800	2200	1000	13.76
13	12941	3700	400	15.71
14	44897	200	1000	13.03
15	33259	600	150	11.92

Source: Annual reports of Total Company by Authors, 2021

Table 4.3. MRS environmental perpetuity costs

YEAR	DDP (¥'000)	MCW (¥'000)	NGO (¥'000)	EPS (¥'000)
1	340	780	500	7.45
2	200	560	400	7.21
3	230	700	700	8.23
4	480	780	900	6.21
5	300	800	650	5.29
6	250	650	800	6.56
7	200	600	250	7.71
8	300	800	400	-4.71
9	420	900	200	4.14
10	350	700	300	7.27
11	400	600	200	2.42
12	300	1900	0	0.81
13	200	2000	0	2.51
14	900	1302	0	2.94
15	350	2555	1367	3.68

Source: Annual reports of MRS by Authors, 2021

Table 4.4. Forte Oil environmental perpetuity costs

YEAR	DDP (¥'000)	MCW (¥'000)	NGO (¥'000)	EPS (¥'000)
1	2000	150	1500	-14.60
2	2030	50	2880	9.98
3	1800	150	1500	2.83
4	1600	100	2300	2.06
5	1200	50	2500	-4.52
6	1500	150	1800	-2.74
7	1400	180	2500	7.26
8	1500	200	3500	6.47
9	1200	150	2800	-8.48
10	50	190	2770	-2.54
11	0	200	500	-20.02
12	100	150	100	0.61
13	230	300	200	4.25
14	400	700	1000	2.42
15	750	730	1250	4.39

Source: Annual reports of Forte Oil Company by Authors, 2021

**Table 4.5. Conoil environmental perpetuity costs**

<b>YEAR</b>	<b>DDP (₹'000)</b>	<b>MCW (₹'000)</b>	<b>NGO (₹'000)</b>	<b>EPS (₹'000)</b>
1	2300	1200	1400	6.54
2	1700	2100	2500	4.42
3	1200	3420	1780	1.45
4	2200	3600	1200	3.37
5	2400	3400	1600	4.23
6	1700	2400	1800	4.05
7	2300	3300	2500	3.72
8	2700	2400	3600	2.62
9	1100	1600	2900	3.33
10	4900	1400	2300	4.02
11	4500	3400	1300	4.32
12	3600	2700	2300	1.03
13	4200	3500	2600	4.62
14	3400	1800	3500	1.20
15	2700	3200	2800	3.33

Source: Annual reports of Conoil Company by Authors, 2021

**Table 4.6. Oando environmental perpetuity costs**

<b>YEAR</b>	<b>DDP (₹'000)</b>	<b>MCW (₹'000)</b>	<b>NGO (₹'000)</b>	<b>EPS (₹'000)</b>
1	12000	1324	1325	5.34
2	13254	1236	899	5.89
3	10000	1400	1000	6.10
4	11200	1500	700	6.34
5	13232	2345	700	6.65
6	26103	3116	400	7.45
7	23572	4605	138	7.51
8	8899	5702	500	9.22
9	25865	2056	2163	11.32
10	13281	53614	1011	11.32
11	168709	3947	76865	8.29
12	43963	70619	12306	12.60
13	28707	61700	7215	22.72
14	14162	58230	1729	-20.76
15	30908	32035	4104	15.78

Source: Annual reports of Oando Company

**Table 4.7. Environmental perpetuity costs**

<b>YEAR</b>	<b>DDP (₹'000)</b>	<b>MCW (₹'000)</b>	<b>NGO (₹'000)</b>	<b>EPS (₹'000)</b>
1	18540	7054	7625	15.58
2	18744	6946	10579	38.19
3	14930	9170	7780	33.71
4	16760	7680	9600	33.48
5	18082	9395	7550	32.38
6	30953	7498	8084	29.87
7	28967	11965	8988	44.33
8	14879	12902	10700	36.30
9	30605	9506	11763	31.46

10	20281	59104	9581	49.01
11	174809	11547	81865	18.38
12	49013	78549	18906	37.37
13	46578	71950	13415	59.46
14	66259	63232	9329	16.56
15	71467	41120	13671	52.61

Source: Researcher's compilations, 2021.

Table 4.8. Logarithm of environmental perpetuity costs

YEAR	LOG (DDP)	LOG (MCW)	LOG (NGO)	LOG (EPS)
1	4.26811	3.848435	3.88224	1.192567
2	4.272862	3.841735	4.024445	1.58195
3	4.17406	3.962369	3.89098	1.527759
4	4.224274	3.885361	3.982271	1.524785
5	4.257246	3.972897	3.877947	1.510277
6	4.490703	3.874945	3.907626	1.475235
7	4.461904	4.077913	3.953663	1.646698
8	4.172574	4.110657	4.029384	1.559907
9	4.485792	3.977998	4.070518	1.497759
10	4.307089	4.771617	3.981411	1.690285
11	5.242564	4.062469	4.913098	1.264346
12	4.690311	4.895141	4.2766	1.572523
13	4.668181	4.857031	4.127591	1.774225
14	4.821245	4.800937	3.969835	1.21906
15	4.854106	4.614053	4.1358	1.721068

Source: Researcher's compilations, 2021

**Table 4.9. Regression results**

Dependent variable: EPS

Variable	Estimated Coefficients	Standard error	T-statistics	P-value
Constant	1.477	0.783	2.885	0.00
DDP	0.00	0.533	2.147	0.035
MCW	3.242	0.127	2.897	0.084
NGO	0.161	0.301	2.536	0.013
R = 0.527				
R <sup>2</sup> = 0.378				
Adjusted R <sup>2</sup> = 0.281				
SEE = 0.16681				
F-statistics = 3.813				
Sig = 0.001				
Durbin Watson = 2.506				
df1= 3 df2= 11				

**Researcher's estimation, 2021**

The coefficient of determination R<sup>2</sup> of 0.378 implies that 37.8 per cent of the change in profit is accounted for change in explanatory while 62.2 per cent is unexplained. The R<sup>2</sup> indicates that there is a positive relationship between criterion and predictors. The adjusted R<sup>2</sup> of 0.281 or 28.1 per cent of EPS is affected by changes of the unexplained value as 71.9 per cent accounted by white noise. The DW statistics value of 2.506 depicted no degree of correlation. The F-statistic was statistically significant. F calculated was greater than the F tabulated.

**5. Findings**

The major findings of this study include:

1. Support/ social cost to destitute and less privileged significantly affect earnings per share
2. Support to motherless babies' homes and others significantly affect earnings per share
3. Donations/ social cost to non-governmental organization significantly affect earnings per share.

**5.1 Conclusion**

Environmental perpetuity cost positively affected the corporate performance. The incorporated factors significantly influenced the performance of earnings per share (EPS). Social cost disclosure was deterministic with a positive correlation with different performances which led to a long run outcome.

**5.3 Recommendations**

In line with the findings, the following recommendations were made:

- i. Management of companies should give special treatment to cost accounting in order to stimulate their performance.
- ii. Organizations should create a strategy that will improve business motive and also improvise the community in line with social amenities.
- iii. Firms should have a developmental skill that will create the opportunity of sharing from the dividend. This will enhance the performance of the employees by increasing their productivity.

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