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ORIGINAL ARTICLE

Impact of Social Cost Accounting on Corporate Performance of Petroleum Marketing Firms in Nigeria

Bessong, P. K.[1]| Bassey, B. E [2] | Nwafor, B. C [3]
[1,2,3] Department Of Accounting, University Of Calabar, Cross River State, Nigeria.

ABSTRACT
The main thrust of this study is to examine the impact of social cost on the corporate performance of petroleum marketing firms in Nigeria. Ex post facto research design was adopted, secondary sources of data were collected for analysis of results and interpretation of data. The results indicated that social cost positively influences the corporate performance of petroleum marketing firms in Nigeria. Hence, it was recommended that the federal government should mandate all petroleum marketing companies to capture and disclose all quantitative data relating to corporate social responsibility which would serve as a boost to the company performances vis-a-vis increased employee productivity.

Keywords: Accounting, Corporate Performance, Nigeria.

INTRODUCTION

The economy of Nigeria depends mainly on revenue accruing from oil exploration and exploitation in the Niger Delta region. These activities are carried out by oil companies such as Agi, Shell, Total, Exxon Mobil and Chevron to maximize profit. During the transformation process and in the course of operation, the people (indigenes) who live within such environments are negatively affected as a result of the pollution and other externalities, thereby reducing the quality of life of the people. The people whose environment had been polluted are expected to be compensated by considering their social, environmental, and economic implications; but they are rather marginalized by the government, hence discouraging the oil companies from embracing the concept of social cost accounting, environmental cost accounting, and sustainability development.

Crowther (2000), opines that "social accounting is a process of communicating the social and environmental effects of organizations' economic actions to particular interest groups within the society and to society at large. While social costs are the total production cost whose burden is not on producers but shifted to the general populace, future generation as well as third parties. Klowfield and Murray (2008), maintained that "sustainability is the ability to sustain a high quality of life for current and future generation which requires companies to rethink what theY product and how they do so".

Crane and Matten (2004) suggested that sustainability hinges on the “triple bottom line” principle developed by Elkington in 1998. Sustainable development as an evolving issue

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encompasses diverse areas of life. For the civil society and human rights, it involves absolute respect for the inalienable rights of the people by both the business and the government. The business is expected to provide the right quality product under the right atmosphere and the production activities of the organization should in no way be a threat to the health of the workers and members of the society. The firm is also expected to pay the right wages to workers and be socially responsible to the host community by identifying their needs and aspiration. On the other hand, the government must provide the right quality and quantity of infrastructure including healthcare, education, housing, good roads network, telecommunication facilities among others. It is based on the above premise that this paper is sought to carry out the study on social cost accounting on the corporate performance of petroleum marketing firms in Nigeria.

THEORETICAL FRAMEWORK

In the course of this study, the researcher highlighted the following theories that underpin the work viz: external cost and benefits, corporate social performance theory and stakeholder theory.

THEORY OF EXTERNAL COST AND BENEFITS

The externalities of the economic transaction are the impacts created on parties that are not involved directly in these transactions. In such a scenario, prices do not reflect the full costs or benefits in production or consumption of a product or service, an advantage impact is called an external benefit or positive externality, while a detrimental impact is called an external cost or negative externality. Producers and consumers in a market may either not bear all of the costs or not reap all the benefits of the economic activity.

There are potential means of improving overall social utility when externality is involved, the market-driven approach to current externalities is to internalize costs and benefits, for instance, by requiring a polluter to repair any damage caused; but in many cases, internalizing costs or benefits is not feasible, especially if the true monetary values cannot be determined, hence, the monetary values of externalities are difficult to quantify, as they may reflect the ethical views and preferences of the entire population. It may not be visible whose preferences are not important, interests may conflict, the value of externalities may be difficult to determine and all parties involve may try to influence policy responses to their benefit.

CORPORATE SOCIAL PERFORMANCE THEORY

The theory of corporate social performance was developed from previously developed concepts, approaches and notions. Its root can be found in the postulate of Bowen (1953), who explained that social responsibility of businessmen (at his time, the presence of women in management was scarce) refers to the obligation of businessmen to pursue those policies, to make decisions or to follows those lines of action which are desirable in term of the objectives and values of our society.

United States Committee for Economic Development (1971) defined corporate social responsibility as the expectation of the society and economic growth as well as jobs and

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products. Mele, (2014) states that corporate social responsibility is any activity that improves the socio-economic well being of the business.

STAKEHOLDER THEORY

The stakeholder theory of corporate social responsibility is anchored on the belief that "corporations have an obligation to constituent groups in society other than stakeholders and beyond that prescribed by law or union contract". Hence, the theory considers persons as well as a group of persons having a claim of a stake in the business, such as the employees, shareholders, suppliers investors, customers, and society.

EMPIRICAL REVIEW

Previous researches have examined the relationship between corporate social performance and financial performance to determine the relationship and the direction of causation. Waddock and Graves (1997). Other empirical shreds of evidence suggest conflicting results about the direction of corporate social performance and financial performance linkage Alexander and Buchholz (1982). However, additional studies by Bowman (1978), Preston (1978) and Anderson and Frankle (1980) have found a positive relationship between corporate social performance and return on asset, return on equity, return on sales of firms and testing such relationship to be bidirectional. This is inconsistent with findings from other prior studies that have identified a negative relationship. Ingram and Frazier (1983), Freedman and Jaggi (1982).

Aupperie (1985) supported the view that “the cost of being socially responsible forces the firm into an unfavourable financial position relative to firms that are not. Hart (1996) in his study of US firms from 1986-1993 found that "different measure of environmental performance positively impact one-period ahead as well as two-period ahead on return on assets based”. Balmer and Greyser (2006) in their empirical cross-sectional researches on the effects of various aspects of corporate social responsibility such as pollution abatement or firm reputation on firm financial performance have yielded inconsistent and contradictory results.

Vance (1975) and several others found no significant relationship between aspects of corporate social responsibility performance and firm performance at all. Alexander and Buchholz (1978), Claudia, (2003) stated that there is a positive relationship between corporate social responsibility and the firms’ profit and that these firms are more stable over time. Richard and Mullen (2009) Gaminite and Scholar (2001), Yean, (2006) and Kazim and Parol (2009) revealed that such costs are however not clearly reported and disclosed in the firm’s financial statements, rather, they are included in overhead.

Tinker and Gray (2003) stipulated that social disclosure creates a particular image or positive reputation in the market place thereby increasing the firm's market share. Hazilla and Kopp (1990) asserted that social cost accounting has not been embraced by companies as social costs could raise the total cost of production and consequently a decrease in profitability. Monk, Richmond and Quarter (2003) claimed that “social costs could create negative impacts on a company’s intention to measure and report these costs for improving quality of social costs

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facilitates companies not only to reduce negative impacts on society and the environment but also to maximize profits when products are sold at large volumes.

METHODOLOGY

The research design adopted was ex-post facto design for this study. This research design was used because the facts already existed and the data were known and cannot be manipulated. The data were obtained from various secondary sources viz annual report of the Nigerian securities and exchange commission published materials. Such as textbooks, periodicals newspapers, etc. The desk survey method was used in gathering reliable information for the study. Ordinary Least Square (OLS) of multiple regression analysis was applied for data analysis. The study intends to make use of six petroleum marketing firms out of the nine quoted on the Nigerian Stock Exchange (NSE). They include:- MOBIL, MRS, CONOIL, TOTAL, AP, and OANDO, these were the companies that disclosed quantitative data for social costs.

MODEL SPECIFICATION

Three (3) models were developed for the study. Intrinsic linearity was necessary for the relationships between corporate performance and social costs of petroleum marketing firms in Nigeria. Corporate performance measures three independent variables via Profit After Tax (PAT) Earnings Per Share (EPS) and Market Share (MKS) and social costs measure three dependent variables. Destitute and Disabled People (DPP) Motherless babies' homes Children and Women Empowerment (MCW) and donations to Non-Governmental Organizations (NGO). The relationship between corporate performance (PAT, EPS, and MKS) and Social Costs (DDP, MCE, and NGO) is expressed by the following equations:

PAT = f(DDP, MCW, NGO)
EPS = f(DDP, MCW, NGO)
MKS = f(DDP, MCW, NGO)

The statistical models for the above functions become:

$PAT = a_0 + a_1DDP + a_2MCW + a_3NGO + \varepsilon$
$EPS = a_0 + a_1DDP + a_2MCW + a_3NGO + \varepsilon$
$MKS = a_0 + a_1DDP + a_2MCW + a_3NGO + \varepsilon$

Where:

PAT = Corporate performance measured via profit after tax
EPS = Corporate performance measured via earnings per share
MKS = Corporate performance measured via market share
DDP = Support to destitute and disabled persons
MCW = Support to Motherless babies homes, children and women empowerment
NGO = Donations to Non-Governmental Organizations.
a_0 = Regression intercept; a_1 = parameters to be estimated; and ε = the error term incorporating other factors that are not considered in the models.

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RESULTS AND INTERPRETATION

Below are tables of regression results showing the impact of social cost DDP, MCW and NGO on corporate performance of PAT, EPS, and MKS

Table 1: Regression results showing the impact of social cost (DDP, MCW, and NGO)

on profit after tax (PAT)

Variable	Estimated Coefficient	Standard error	T-statistics	P-value
Constant	6.582	1.261	5.220	0.000
DDP	0.838	0.445	1.883	0.086
MCW	0.417	0.205	2.031	0.067
NGO	0.606	0.484	1.252	0.037
R^2 = 0.564				
R^2 = 0.319				
Adjusted R^2= 0.233				
SEE = 0.26854				
F-statistics = 3.714				
Sig = 0.000				
Durbin Watson = 2.281 dfl= 3 df2= 11				

Researcher's estimation, 2017.

Table 2: Regression results showing the impact of social cost (DDP, MCW, and NGO)

on earning per share (EPS)

Variable	Estimated Coefficient	Standard error	T-statistics	P-value
Constant	1.477	0.783	1.885	0.00
DDP	0.00	0.533	2.147	0.035
MCW	3.242	0.127	1.897	0.084
NGO	0.161	0.301	0.536	0.013
R^2 = 0.527				
R^2 = 0.378				
Adjusted R^2= 0.281				
SEE = 0.16681				
F-statistics = 3.813				
Sig = 0.001				

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Durbin Watson = 2.506
dfl= 3 df2= 11

Variable	Estimated Coefficient	Standard error	t-statistics	P-value
Constant	2.645	0.493	5.360	0.00
DDP	0.240	0.174	1.379	0.015
MCW	0.152	0.080	1.889	0.011
NGO	0.400	0.189	2.110	0.023

R^2 = 0.639
R^2 = 0.409
Adjusted R^2= 0.348
SEE = 0.10507
F-statistics = 4.545
Sig = 0.00
Durbin Watson = 2.201
dfl= 3 df2= 11

Researcher's estimation, 2017.

Table 3: **Regression results showing the impact of social cost (DDP, MCW, and NGO) on market share (MKS)**

Researcher's estimation, 2017.

Table 1 shows the regression result of the impact of social cost (DDP, MCW, and NGO) on profit after tax (PAT). From the table, the coefficient of determination R^2 of 0.319 implied that 31.9 percent of the change in profit after tax (PAT) is accounted for by the change in social cost variables DPP, MCW and NGO while 68.1 percent is unexplained and that could be as a result of other variables not incorporated into the model. The low value of R^2 is an indication that there is a positive but poor relationship between the dependent and independent variables.

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The value of the adjusted R^2 of 0.233 implied that the regression line has captured only 23.3 percent of profit after tax (PAT) caused by the variation in the explanatory variables specified in the equation with about 76.7 percent accounted for by the error term.

The Durbin Watson statistics were used to test for serial correlation and the value of 2.281 indicated that there exists no degree of serial correlation since 2.281 falls within the inconclusive region of the Durbin Watson partition curve.

Testing the statistical significance of the overall model, the F-statistic was used and the model was statistically significant at 95 percent confidence interval because for a twotailed test because the F_{cal} value of 3.714 is greater than the F_{tab} value of 3.58 at dfl= 3 and df2=11.

Table 2 shows the regression result of the impact of social cost (DDP, MCW, and NGO) on earnings per share (EPS). From the table, the coefficient of determination R^2 of 0.378 implied that 37.8 percent of the change in earnings per share (EPS) is accounted for by the change in social cost variables DDP, MCW and NGO while 62.2 percent is unexplained and that could be as a result of other variables not incorporated into the model. The low value of R^2 is an indication that there is a poor relationship between the dependent and independent variables.

The value of the adjusted R^2 of 0.281 implied that the regression line has captured only 2.9 percent of earnings per share (EPS) caused by the variation in the explanatory variables specified in the equation with about 71.9 percent accounted for by the error term.

The Durbin Watson statistics were used to test for serial correlation and the value of 2.506 indicated that there exists no degree of serial correlation since 1.593 falls within the inconclusive region of the Durbin Watson partition curve.

Testing the statistical significance of the overall model, the F-statistic was used and the model was statistically insignificant at 95 percent confidence interval because the F_{cal} value of 1.890 is less than the F_{tab} value of 3.58 at dfl= 3 and df2= 11.

Table 3 shows the regression result of the impact of social cost (DPP, MCW, and NGO) on market share (MKS). From the table, the coefficient of determination R^2 of 0.409 implied that 40.9 percent of the change in market share (MKS) is accounted for by the change in social cost variables DPP, MCW and NGO while 59.1 percent is unexplained and that could be as a result of other variables not incorporated into the model. The low value of R^2 is an indication that there is a positive but poor relationship between the dependent and independent variables.

The value of the adjusted R^2 of 0.348 implied that the regression line has captured only 34.5 percent of market share (MKS) caused by the variation in the explanatory variables specified in the equation with about 65.2 percent is accounted for by the error term.

The Durbin Watson statistics were used to test for serial correlation and the value of 2.201 indicated that there exists no degree of serial correlation since 2.201 falls within the inconclusive region of the Durbin Watson partition curve.

Testing the statistical significance of the overall model, the F-statistic was used and the model was statistically significant at 95 percent confidence interval because the F_{cal} value of 4.545 is greater than the F_{tab} value of 3.58 at dfl= 3 and df2= 11.

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CONCLUSION

Social cost has a positive relationship with corporate performance even though the relationship is a weak one. Social cost variables via DDP, MCW, and NGO significantly influence profit after-tax earning per share and market share of the companies products. In summary, social cost disclosure how a positive correlation on petroleum companies' financial and non-financial performances and also a significant influence on the performances of these companies in the long run.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are highlighted, which when implemented, would enhance the petroleum marketing firm's corporate performance in Nigeria:

i. Petroleum marketing firms in Nigeria should give priority attention to social cost accounting to boost their corporate performance. ii. Policymakers should make it mandatory for firms to incorporate social costs into their financial statements.

iii. Petroleum marketing firms should reduce the emphasis on the business motive of wealth maximization and contribute more to the development of society through the provision of social amenities. iv. In reporting for social cost accounting, emphasis should shift from voluntary to mandatory reporting by ensuring that the social effects of firms' activities and actions are reported.

v. Social cost accounting and reporting should not be a one-step approach, it should be a continuous process of enhancing growth and development.

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