

TRIPLE BOTTOM LINE ACCOUNTING PATTERN AND PROFITABILITY OF FIRMS. (AN EMPIRICAL STUDY OF OIL AND GAS COMPANIES IN NIGERIA)

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Abstract:

This research paper examines the important of triple bottom line accounting pattern on the profitability of firms in Nigeria. To achieve the above objective, companies with good evidence of social and environmental cost record were sorted from the oil and gas industry in Nigeria. Hypotheses were formulated, and a review of related literature was made. Theory in support of sustainability was analyzed, Data were collected from oil and gas annual reports and financial statement of Conoil and Forte Oil Nigeria Plc, The data were presented and analyzed, while the formulated hypotheses were tested using the Ordinary Least Square (OLS), Our findings indicated that the implementation of triple bottom line accounting pattern in organizations would enable them report profitability accurately to stakeholders, measurement and allocation of environmental and social costs pertaining to the activities of the organization. Based on this, it was recommended that firms should implement triple bottom line accounting patterns to enable them identify, measure and allocate environmental and social costs; and also, provide managers with strategies and techniques for managing performance across the three dimensions.

Keywords:

Triple Bottom Line Accounting, cost incurred, social and environmental cost.

INTRODUCTION

Business is a Socio-economic activity and it draws its inputs from the society, hence its objectives should include the welfare of the society. The business therefore owes a responsibility towards solving many social problems. Changes in the environments and social parameters, business enterprises and other organizations including NGOs charities and government agents are compelled to account and report information with regard to discharge of their social responsibilities. Sustainability is regarded as the integration of three performance areas: economic, social and environmental; this is viewed as a necessary practice for the survival of modern corporations. According to Middlebrooks, Miltenberger, Tweedy, Newman, and Follman. (2009), as cited in Piper, Mang, Knox, & Waddell. (2012), "the triple bottom line of fiscal, social and environmental reports considerably alters how organizations (and stakeholders) measure sustainable success". Triple bottom line accounting pattern involves additional reporting, businesses will need to incorporate additional information in the reports provided to better communicate with stakeholders (Jackson, Boswell & Davis, 2011). Thus, organizations have come to realize that meeting stakeholder expectations is as necessary a condition for sustainability as the need to achieve overall strategic business objectives (Ballou, Heitger, & Landes, 2009). While maximizing shareholder value continues (Onyali, 2014). Elkington (1997) strove to measure sustainability during the mid-1990s by encompassing a new framework to measure performance in corporate America. This accounting framework, called the triple bottom line (TBL), went beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions. Triple bottom line reporting can be an important tool to support sustainability goals.

The triple bottom line is an accounting framework that incorporates three dimensions of performance: social, environmental and economical. This differs from traditional reporting frameworks as it includes ecological or environmental and social measures that can be difficult to assign appropriate means of measurement. Well before Elkington introduced the sustainability concept as "triple bottom line," environmentalists wrestled with measures of, and frameworks for, sustainability. Academic disciplines organized around sustainability have multiplied over the last 30 years. People inside and outside academia who have studied and practiced sustainability would agree with the general definition of Andrew Savitz for Triple Bottom Line. The Triple Bottom Line "captures the essence of sustainability by measuring the impact of an organization's activities on the world, including both its profitability and shareholder values and its social, human and environmental capital. The 'triple bottom line' (TBL) phrase was coined by Elkington in (1994) to expand the environmentalist agenda of those working towards sustainability so that it more explicitly incorporates a social dimension (Elkington, 2004). He used the phrase as the basis for his work, where he explains that TBL refers to the three bottom lines of "economic prosperity, environmental quality and social justice". This could be attributed to growing demands from stakeholders for more extensive information on the operations and financial standing of businesses, thus necessitating that managers include information on sustainability related issues (Jackson, Boswell & Davis, 2011; Onyali, 2014). The most frequently seen factors used in performance measurement are: economic, environmental, and social "Global Reporting Initiative (Wang & Lin, 2007). In the literature, there is no real consensus as to the exact dimensions used for the performance measures (Jackson, Boswell & Davis, 2011). Some other dimensions used are community improvement, environment, entrepreneurship and education (Sher & Sher, 1994) and stakeholder engagement, organizational integrity, and stakeholder activism (Painter-Morland, 2006). In all instances, performance is being measured based on the impact of companies on society as a whole, both now and into the future (Jackson, Boswell & Davis, 2011).

STATEMENT OF THE PROBLEM

The comprehensive analysis of the social impact of firms suffer at present time from a general absence of reliable data on aggregate social costs and benefits of business and on how these are shared among various

social groups. There is the absence of financial data relating to actions and arrangements for social and environmental concerns. This is not in accordance with the trend in the developed nations, where companies are required to report on the effect of compliance with law governing corporate social conduct on capital expenditures, earnings and competitive position.

In Nigeria there are no clearly stated regulatory guidelines or standards regarding the reporting or accounting for corporate social responsibilities; therefore, firms operating in Nigeria may not deem it obligatory to disclose and incorporate such matters in their financial statements. There are no written set of guidelines and standards specifying the particular method(s) with regards to the treatment and presentation of these environmental and social issues. Davis and Okorite (2007:45) identified the following problems associated with the reporting of social and environmental responsibilities:

- 1). Problems of the definition of the users of such information. It is difficult to determine the users of social responsibility accounting report (or information). All the users of accounting information will also need this information. The needs of one group of users may conflict to define their objectives and develop an acceptable concept.
- ii) Having no generally accepted concept of the social responsibility of business enterprise. Organizations have not yet developed clear views of society's preferences and priorities, therefore, they are not able to plan social activities or make a good report on their performance.
- iii) Difficulty in making public decisions about the social good of an organization.
- iv) Difficulty of quantifying some aspects of social activities carried out by social organizations.

There are also reported cases where systems of economic and social accounts are not designed to serve the needs of at least two broad groups of actual and potential users. One is the scientific community, including economists and other social scientists as well. Social scientists need a system of accounts which illuminate the problem they are investigating, with a view to describe, understand, explain, and ultimately predict significant economic and social phenomena. With regard to the potential users (those concerned with the formulation of public policy), there are instances of unavailability of information or disclosures in financial statement that can enable them identify and establish the quantitative significance of social, environmental and economic problems and priorities.

PURPOSE OF THE STUDY

This study specifically aimed at achieving the following objectives:

- ii) To examine the relationship between costs incurred on social and environmental issues and return on equity of firms.
- iii) To determine the relationship between cost incurred on social and environmental responsibility and earning per share.

RESEARCH QUESTIONS

In order to achieve the purpose of this study, the following research questions were answered:

- Is there a significant relationship between cost incurred on social and environmental matters and earning per share of firms?
- Is there a significant relationship between cost incurred on social and environmental responsibility and return on equity of firms?

In order to make this study effective and meaningful, the following hypotheses were tested:

H01: There is no significant relationship between cost incurred on social and environmental matters and earning per shares.

H02: There is no significant relationship between cost incurred on social and environmental matters and

return on equity.

LITERATURE REVIEW

Theoretical considerations:

The following theories are considered Legitimacy Theory “Legitimacy is generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions” Suchman, (1995, p574). Legitimacy Theory is the most cited and popular theory within SEA area. Legitimacy Theory is describe as a positive theory as it seeks to describe or explain corporate behavior (in term of efforts made to appear legitimate) rather than prescribing how organization should behave.

It implies that an organization’s image and success may be lurked if society perceives that the organization has breached its social contract. Where the society is not too pleased with the way that the organization’s “contract” to continue its operations.

Stakeholder Theory: this is about organizational management and business ethics that addresses morals and values in managing an organization, originally defined by Edwards (1984). Gray, Kouhy & Lavers (1995b, p. 53) asserts that “the corporation’s continued existence requires the support of the stakeholders and their approval must be sought and the activities of the corporation adjusted to gain that approval. The more powerful the stakeholders, the more the company must adapt. Social disclosure is thus seen as part of the dialogue between the company and its stakeholders”. The entity should be used as a vehicle for coordinating stakeholders’ interests, instead of maximizing shareholders profit. Stakeholders including shareholders, customers, government, society etc are those who influence directly or indirectly the activities of an entity, therefore managers have an incentive to disclose information about their various programs and initiatives to particular stakeholder groups to indicate that they are conforming to the stakeholders’ expectations.

Political Economy Theory (PET): this theory explains that society, politics and economy cannot be treated alone but together, and that an organization does not operate in a vacuum but interact with the outside, i.e its stakeholders. PET is said to have a broader way to tackle the issues concerning society which influences the operations for an organization, and what information it chooses to disclose. According to Guthrie & Parker (1990, p. 166); “The political perspectives accounting reports political and economic documents. They serve as a tool for constructing, sustaining and legalizing economic and political arrangements, institutions, and ideological themes which contribute to the corporation’s private interests. Disclosures have the capacity to transmit social, and economic meanings for a pluralistic set of report recipients”. Therefore, PET also recognizes the use of social and environmental disclosure in annual reports as a strategic tool in achieving organizational goals, and in manipulating the attitudes of external stakeholders (Guthrie & Parker, 1990).

Social Contract Theory: The contemporary version of the Social Contract Theory revisited by Rawls (1999) in a ‘Theory of Justice’, wants to demonstrate that individual and social group rights and liberties are founded on mutually advantageous agreements which are made between members of society. The concept of “social contract” is important to understand the legitimacy theory. Being socially and environmentally responsible, getting involved in CSR or sustainability reporting demonstrate that there is a certain contract between a company and its stakeholders. Matthews (1993) as cited in Deegan, (2002: p 202) “The social contract would exist between corporations (usually limited companies) and individual members of society (as a collection of individuals) provides corporations with their legal standing and attributes amid the authority to own and use natural resources and to hire employees. Organizations draw on community resources and output both goods and services and waste products to the general environment. The organization has no inherent rights to these benefits, and in order to allow their existence, society would expect the benefits to exceed the costs to society”.

Conceptual considerations

Triple Bottom Line Measurement

The application of the Triple Bottom Line accounting in businesses, nonprofits and governments are motivated by the principles of economic, environmental and social sustainability, but differ with regard to the way they measure the three categories of outcomes. Proponents who have developed and applied sustainability assessment frameworks like the Triple Bottom Line Accounting encountered many challenges, chief among them, how to make an index that is both comprehensive and meaningful and how to identify suitable data for the variables that compose the index. The Genuine Progress Indicator (GPI), for example, consists of variables that encompass economic, social and environmental factors. Those variables are converted into monetary units and summed into a single, dollar-denominated measure. Minnesota developed its own progress indicator comprised of variables that focused on the goals of a healthy economy and gauged progress in achieving these goals. There is a large body of literature on integrated assessment and sustainability measures that grew out of the disciplines that measure environmental impact. These are not constrained by strict economic theory for measuring changes in social welfare. Researchers in environmental policy argue that the three categories economic, social and environmental need to be integrated in order to see the complete picture of the consequences that a regulation, policy or economic development project may have and to assess policy options and tradeoffs (Timothy & Tanya, 2010)

The term corporate social responsibility is an expression used to describe what some see as company's obligation to be sensitive to the needs of all of the stakeholders are all those who are influenced by, or can influence, a company's decisions and actions. The stakeholders include (but are not limited to): employees, customers, suppliers, community organizations, subsidiaries and affiliates, joint ventures partners, local neighborhood, investors, pressure groups, government and its agencies and shareholders (or a sole owner). According to Nwachukwu (2006: 271), social responsibility is seen as: 'The intelligent and objective concern for the welfare of society which restrains individuals and corporate behavior from ultimately destructive activities, no matter how immediately profitable and which leads in the direction of positive contribution to human betterment'. Mamman (2004:15) defined social responsibility as "a comprehensive set of policies, practices and programmes that are integrated into business operations to address the legal, ethical, commercial, and other expectations society has on business as well as making decision that fairly balance the claim of all key stakeholders".

A widely quoted definition by the World Business Council for Sustainable Development state that 'sustainability is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large'. This holistic approach to business regards organization as being full partners in their communities, rather than seeing them more narrowly as being primarily in business to make profit and serve the needs of their shareholders. This is predicated upon the assumption that companies do have wider responsibilities than simply to make money for their shareholders (Jackson, Boswell, & Davis, 2011). However, this is contrary to the classical concept of corporate social responsibility as advocated by Milton Friedman in his caustic statement that the one and only social responsibility of business is to increase its profit (Alexandra, 2002). Glautier and Underdone (2001: p. 364) supports the assertion in the following terms: "*There is one and one only social responsibility of business, it is to use its resources and engage in activities designed to increase its profit as long as it stays within the rules of the game which is to say engage in open and free competition, without deception or fraud...few trends could so thoroughly undermine the very foundations of our free society as the acceptance of corporate officials of a social responsibility other than to make as much money for their shareholders as possible*".

Although the idea of social responsibility dates back to the beginning of the 20th Century, it was Howard Bowen who initiated the modern debate on this topic. He reasoned that there would general social and economic benefit that would accrue to society if business recognized broader social goals in its decisions. It is important to underline that, the idea of sustainability generated from within the business community, emphasis was placed on its voluntary character, from the outset, has reflected the natural fear felt by business leaders when confronted with social criticism and regulatory pressures. As the preservation of power of division has been dominant, it has been argued that government intervention may occur in the absence of voluntary social actions. Nonetheless, it is also stated that sustainability requires respect for law and the rules of the game that govern market place relationships since only the adherence to both these sets of rules would ensure the degree of political and economic stability that permits the pursuits of profits (Gatto, 2002; Frederick, 1987). Furthermore, adopting socially responsible behavior and lowering the social criticism directed towards companies may ensure a greater economic, social and political stability, which in turn benefits business (Gatto, 2002).

CONCEPT OF CORPORATE SOCIAL ACCOUNTING

An accounting framework influences how a corporation defines success, Paunic (2007: p.3) asserts that "accounting information should be made and employed for the purposes of correct, truthful, quick and clear picture of one's company activities. Its role is to classify all financial information in order to lead us to right track about a company's success and in that way reveal the most correct market price". Traditional accounting focuses on maximizing shareholders value and on the financial bottom line. However, an increasing number of firms are interested in "double" or "triple" line accounting. They are interested not only in measuring the impact of business practices on the financial bottom line, but also the impact on their employees, the communities in which they operate and the natural environment, which are traditionally not reflected in accounting statements. Corporate social responsibility (social accounting) according to Davis and Okorite (2007) is an extension of corporate reporting. To them traditional corporate reporting system is confined purely to financial matters, that is, quantitative cost, expenses, revenues, etc. but social consequences of the activities of corporate organizations were not reported. This traditional approach, which happens to be based on the classical goals of a company as being profit maximization, did not reflect any social concern. Social responsibility is the call by stakeholders such as the public, environmentalists, employees, pressure groups, government and its agencies, NGO's and host communities for reported evidence of socially desirable policies on the part of business organizations.

Social accounting (social reporting) means many things to many people; consequently definition and analysis are difficult tasks to accomplish. First, the subject area is relatively new; second, by its nature any attempt to account for the impact of organizations upon their social environment is bound to incorporate a political dimension. At the very least, social accounting means an extension of disclosure into non-traditional areas such as providing information about employees, products, community service and the prevention or reduction of pollution. Social account is also used to describe a comprehensive form of accounting which takes into account externalities, the cost imposed on the public by private sector organizations may also be evaluated in this way, although most writers on the subject of social accounting appear to be concerned with private sector organizations. To Ansari, Fiss, and Zajac, (2010: p.70) "social accounts tend to emphasize growing levels of pressure toward social conformity. Specifically, social accounts tend to assume that organizations frequently imitate other organizations in order to appear legitimate and that with increasing institutionalization adoption of practices is therefore often driven by a desire to appear in conformance with norms". Selvi (2006) defined social accounting as a way of demonstrating the extent to which an organization is meeting its stated ethical goals. He further stated that it is a process that an organization should follow to account for its performance and does not indicate the levels of performance the organization

should achieve; therefore the willingness of the organization to improve is more critical than mere compliance.

HISTORICAL BACKGROUND OF CORPORATE SOCIAL ACCOUNTING

The concept of corporate social accounting started developing several years ago. According to David and Okorite (2002:44) in their article "Corporate Social Accounting – A Wake – Up Call To the Nigerian Accountant" noted that: *Social accounting as an approach (or concept) began developing in the United Kingdom in the early 1970s, when the Public Interest Research Group established Social Audit Limited. Social audit limited carried out investigations into the operations of large public companies and published them and this led to an increasing awareness of corporate social responsibility whereby the success of an organization is measured not only in its financial performance but also by its social and environmental impact.* Furthermore, according to them, Accounting Standards Steering Committee (ASSC) set up a sub-committee in the 1970s to prepare a wide range discussion paper with the following terms of references: (1) To re-examine the scope and aims of published financial reports in the light of modern needs and conditions. (2) To be concern with the public accountability of economic entities of all kinds, but especially business organizations. (3)To seek to establish a set of working concepts as a basis for financial reporting with the aim of identifying the persons or groups for whom published financial reporting should be prepared and the information appropriate for their interests. (4)To consider the most suitable means of measuring and reporting the economic position, performance and prospects of undertakings for the purposes and persons already identified. The Corporate Report in its recommendation on possible extension to the accounting framework suggested six additional statements to be incorporated in financial reports. In addition to these six, the concepts of segmental reporting and social and environmental responsibility accounting were briefly mentioned and discussed (Davis & Okorite, 2007). Wood and Sangster (2002: p 446) also opined that "the reporting of the social effects of a company's activities became an issue in the UK in the 1970s. the reporting of non-financial information usually takes the form of narrative disclosure sometimes supported by a statistical summary. They noted further that, as much as social reporting is non-mandatory, comparison with other companies is difficult if not pointless and misleading. This they said is partially due to a positive bias in what is reported – most companies tend to report only good news in their social reports. It is also due to the lack of standards governing what to include and how to present social reports. Wood and Sangster noted that environmental issues have been firmly on the political agenda since the early 1980s and large corporations have responded to public demands for more information about green issues'. Oil companies, in particular produce a notable amount of additional information in their annual reports. This environmental information, they noted, usually includes details about the company's waste disposal practices, attitudes towards pollution and natural resources deletion, as well as the overall corporate environmental policy. However, many continue to avoid any non-mandatory social reporting, and many instances have been reported of organizations claiming to be socially responsible, when they were in fact, anything but. Companies, mainly those based in the USA, have begun to declare the philosophy towards such matters as the environment. This is usually included in the annual reports which accompany their financial statement (wood & Sagster, 2002).

It was noted in a more recent study by Lungu, Caraianni and Dascalu (2007: p 38) that "the emergence of various forms of corporate social reporting reflect a recognition that the span of corporate accountability is changing to reflect more obviously a range of new stakeholder groups including employees, local communities, consumers, suppliers and customers. A recent report on the World Bank's performance in developing countries argues that the conventional accounting framework is not an appropriate tool to guide organized effort in balancing the competing – interdependent needs of multiple stakeholders". they further observed that "many entities are just beginning to understand how stakeholders want them to measure, manage and account for the full range of their activity impacts on society and environment. The best way to

ensure the financial success going forward is to expand the overlap between the business interests and the interests of society and environment. Transparency and accountability along with a close working relationship with the stakeholder's will grow the business, serve the stakeholders interests and create a better world. This type of report therefore must reflect the growing commitment to work with labour, business partners, government agencies and environmental and community stakeholders".

NEED FOR SUSTAINABILITY ACCOUNTING

There is a need for social responsibility accounting because its reporting process is advantageous to the reporting organization as well as to the shareholders (Davis & Okorite, 2007).

To the Organization: Social responsibility accounting according to Selvi (2006): i) Helps in improving financial performance. ii) Clearly highlights the link between improved social performance and improved financial performance. iii) Helps in enhancing relationships with stakeholders. iv) Help in managing risk (v) Helps in establishing clear alignment in strategy and operation with aims and values. vi) Helps in specifying the organization's boundaries for responsibility.

To Stakeholders: The following are the reasons for the growing interest of social accounting among stakeholders according to Selvi: i) It brings into focus the critical aspects of accountability in a positive, innovative manner and increase transparency. ii) It enhances entity's reputation for practicing its values. iii) It provide a comprehensive feedback from the stakeholders thereby focusing the management's attention on the outcome and on how to respond to the outcome. iv) It brings into focus the stakeholders view of the entity.

According to Davis and Okorite (2007; p 450) there is need for sustainability accounting because of problems created by some organizations in the course of carrying out their operation, some of which are: i) Environmental Pollution ii) Erosion, Denudation, massive destruction of vegetation. iii) Dislodgement of communities (eg. The people of old Finima were dislodged as a result of locating NLNG at Finima, Bonny). iv) Exploitation of workers in pursuit of profit maximization. They said further that as a result of this need for social accounting it should reflect how corporations have responded to the alleviation of these social problems. The scope of conventional accounting should widen to deal with the consequences of business decisions, activities as well as their effects. References to social accounting may be found in company reports, press releases, news media and occasionally political speeches. The frequency of these references would suggest that social accounting might become increasingly important in the future, as the discipline of accounting is extended to include a variety of items not disclosed at present Matthews and Peresa (1996: 376). This is the views of Alida (2007) when they opined that "the need for social responsibility is to say the least pressing and relevant".

MEASUREMENT OF SOCIAL CONTRIBUTION

Herremans et. al. (1996: p 590) advocated that there are three approaches to measuring social responsibility. According to him: (i) A frequent approach to measuring social responsibility has been assess the extent of corporate disclosures about matters of social concern. (ii) The second approach has been to assess social responsibility form specific corporate actions such as expenditures on pollution control, trade violations, corporate philanthropy, and the establishment of social responsibility programs committees of the board. (iii) The third principal approach to measuring social responsibility has been to use opinion surveys of corporate reputations. This avoids the selectivity problem, but it has its own Vulnerability. In particular it is not clear what shapes the formation of reputations. This shows that several researchers have used reputation for rating a firm's social performance. Davis and Okorite (2007:46) opined that there is a general acceptance of the concept of social responsibility. There is however, the problem of measurement as it is difficult to quantify some expenditure incurred and some benefits derivable.

METHOD OF DATA COLLECTION

Method employed in Carrying out this research work was by secondary data. Secondary data is the name given to data that has been used for some purpose other than that for which they were originally collected. Secondary data generally used when the term manpower resources necessary for survey are not available and of course the relevant information required. Secondary data were gotten from different sources e.g. Nigeria stock market and annual financial reports. Oil and gas annual reports. The duration of my research was basically from 2011 to 2015 which is in the range of 5yrs. This duration was used because most companies in Nigeria does not giving detail report of social and environmental cost incurred and it is detailed enough to give a good result and analysis. This study employs annual data on the cost incurred on social and environmental matters and the earning per share and return on equity of Conoil and Forte Oil Nigeria Plc annual report and financial statement.

DATA ANALYSIS TECHNIQUES

The analysis was carried out in two forms and they are regression analysis and correlation. Regression analysis includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and independent variables. The regression analysis was guided by the following linear model: $Y_3 = f(X_1, X_2,)$ (1)

$$CISE = f(EPS + REF). \quad (2)$$

$$CISE = f(EPS_1 + \varepsilon) \quad (3)$$

$$CISE = f(REF_2 + \varepsilon) \quad (4)$$

That is $B_1 - \beta_2 > 0$

CISE = Cost Incurred on Social and Environmental matters; EPS = Earning Per Shares; RSF = Return on Equity of Firm; β_1, β_2 , are the coefficients of the regression, while ε is the error term capturing other explanatory variables not explicitly included in the model. However, the model was tested using the diagnostic tests of heteroskedasticity, multiple regression, serial correlation, normality and misspecification (Gujarati and Porter, 2009; Asterious and Hall, 2007). Augmented Dickey-Fuller was also used in the study for stationary of data.

DATA PRESENTATIONS

Table 1.0a Environmental Cost

Environmental Cost	2011 #'000	2012 #'000	2013 #'000	2014 #'000	2015 #'000
Conoil	20,041	23,548	21,200	19,272	8,543
Forte Oil Plc	200	4,000	5,100	10,135	4,488

Source: Oil and gas Annual report 2010 to 2015

Table 1.0b EPS

EPS	2011 #'K	2012 #'K	2013 #'K	2014 #'K	2015 #'K
Conoil	432	1.03	4.42	1.2	3
Forte Oil Plc	1996	093	432	22	411

Source: Oil and gas Annual report 2010 to 2015

Table 1.0c ROA

ROA	2011	2012	2013	2014	2015
Conoil	0.26	0.07	0.25	0.01	0.19

Forte Oil Plc	0.147106	0.136694	0.11817	0.132867	0.286963
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Source: Oil and gas Annual report 2010 to 2015

HO1. There is no significant relationship between cost incurred on social and environmental matters and earning per shares. This hypotheses was created to test cost incurred on social and environmental matters and the earning per shares and the result is as follows:

Table 2.0a

Model Summary					
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
1	dimension	.401a	.161	-.119	9.41169
a. Predictors: (Constant), Soc_n_Env_COST					

Table 2.0b

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.027	1	51.027	.576	.503a
	Residual	265.740	3	88.580		
	Total	316.767	4			
a. Predictors: (Constant), Soc_n_Env_COST						
b. Dependent Variable: EPS						

Table 2.0c

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.602	16.919		1.277	.292
	Soc_n_Env_COST	-.001	.001	-.401	-.759	.503
a. Dependent Variable: EPS						

In order to provide answer to the first hypothesis, we engaged the study to evaluate if there is a statistically significant relationship between cost incurred on social and environmental matter and earnings per share of firms. The adjusted R² indicates that about 0.11 percent of the observed changes in earnings per share of firms were explained by the cost incurred on social and environmental matter. The F-statistic was given as [F-statistic = 0.576 < F_{0.05} = 3.84]. The t-statistic value used shows that social and environmental [t_{cal} = -.759 < t_{cri} (0.05) = 1.697] matter is negative and insignificantly related to earnings per share of firms. It follows therefore that since our t_{cal} is less than our t_{cri} (0.05), the alternative hypothesis is rejected. While, our null hypothesis which states that there is a statistically insignificant relationship between cost incurred on social and environmental matter and earnings per share of firms is accepted.

HO2: There is no significant relationship between cost incurred on social and environmental matters and return on equity. This hypotheses was created to test cost incurred on social and environmental matters and the return on equity of firms and the result is as follows:

Table 3.0 a

Model Summary

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimension	1	.889a	.791	.721	.06095
0					
a. Predictors: (Constant), Soc_n_Env_COST					

Table 3.0 b

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.042	1	.042	11.343	.043a
	Residual	.011	3	.004		
	Total	.053	4			
a. Predictors: (Constant), Soc_n_Env_COST						
b. Dependent Variable: ROA						

Table 3.0 c

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.696	.110		6.350	.008
	Soc_n_Env_COST	-1.534E-5	.000	-.889	-3.368	.043
a. Dependent Variable: ROA						

In order to provide answer to the second hypothesis, we engaged the study to evaluate if there is a significant relationship between cost incurred on social and environmental matter and Return on equity. The adjusted R^2 indicates that about 72 percent of the observed changes in return on asset were explained by the cost incurred on social and environmental matter. The F-statistic was given as [F-statistic = 11.343 > compared to $F_{0.05} = 3.84$]. The t-statistic value used shows that social and environmental [tcal = -3.368 > tcri (0.05) = 1.697] matter is inverse and significantly related to earnings per share of firms. It follows therefore that the null hypothesis is rejected, while, the alternative hypothesis which states that there is a significant relationship between cost incurred on social and environmental matter and Return on equity is accepted.

CONCLUSION AND RECOMMENDATIONS

The Triple Bottom Line concept developed by John Elkington has changed the way businesses, and governments measure sustainability and the performance of firms or policies. Beyond the foundation of measuring sustainability on three fronts social, environmental and economical, the flexibility of the Triple Bottom Line allows organizations to apply the concept in a manner suitable to their specific needs. There are challenges to putting the Triple Bottom Line accounting pattern into practice. These challenges include measuring each of the three categories, finding applicable data and calculating a project or policy's contribution to sustainability. These challenges aside, the Triple Bottom Line accounting pattern framework allows organizations to evaluate the ramifications of their decisions from a truly long-run perspective. Timothy and Tanya (2010)

The following recommendations are put forward based on the research findings and inferences: (1). There should be written set of guideline and standards specifying the treatment and presentation methods. These set guideline should explicitly state the scope, formats, uses of quantitative and financial measures and the significance of the disclosure items. (2). There should be reliable data on aggregate social costs and benefits of business and on how these are shared among varying social groups. That is, financial data relating to actions and arrangements for social concerns should be made available. (3). There should be availability of comprehensive guideline on social and environmental accounting or reporting that covers all area of social performance agenda. (4). There should be sets of social accounting objectives or concept in order to provide an acceptable framework of objective that will be fundamental to the development of social and environmental theory in area bordering on valuation, measurement and reporting standards.

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