TRIPLE BOTTOM LINE REPORTING AND SHAREHOLDERS' VALUE IN OIL AND GAS MARKETING FIRMS IN NIGERIA

Sunday A. Effiong, University of Calabar
Peter A. Oti, University of Calabar
Dorathy C. Akpan, Akwa Ibom State University

ABSTRACT

Noticeable gap exists between the company and the stakeholders when the company focuses on single bottom reporting that only shows profitability at the expense of environment and society. This paper evaluates the effect of triple bottom line disclosures on economic value, market value and cash flow returns on investment of the studied companies. Secondary data were from the NSE Fact Book and Annual Reports of studied companies quoted in NSE. A disclosure checklist of GRI guidelines was used while employing the ex post facto design. All the twelve quoted Oil and Gas companies were studied for ten years with descriptive statistics and panel data regression analysis employed. The findings showed that economic, social and environmental performance disclosures significantly affect economic value, market value and cash flow returns on investment. These results confirm that corporate strategies of reporting the organization's footprints on the basis of environment, social and economic conditions of stakeholders significantly maximize shareholders' value.

Keywords: Triple Bottom Line Profit Reporting, Performance Disclosures, Shareholders Value, Economic Value, Market Value Added, Cash Flow Returns on Investment.

INTRODUCTION

Companies in an attempt to carry out economic activities leave tremendous footprints on the environments and societies. This footprint or impacts could be positive when the effects are beneficial, and negative when detrimental. Negative footprints can instigate hostilities from stakeholders. For instance, the host communities can disrupt economic activities, kidnap oil personnel, and vandalize oil pipelines. Government on the other hand can impose fines and penalties on contravention of environmental laws and violation of human right laws. In order to avert these negative footprints, companies engage in corporate social responsibilities (CSR) and sustainability agenda. The notion of CSR and environmental responsibilities reflects stakeholders' theory. By taking up these responsibilities, directors realize that their primary objectives have been widened and they thus engage in corporate strategies that maximize the benefits of other stakeholders which in the long run benefit the shareholders the most. Directors when reporting corporate performance and position also disclose their economic, environmental and social performance since a large group of stakeholders are involved. The focus is not only on financial but also non-financial information about social and environmental issues.

More so, given the fact that shareholders are the primary owners of companies, they still require much value to be added to their investments and their wealth maximized. Thus, directors who are the agents of the shareholders are expected to engage in corporate strategies and policies

that will not erode the wealth of shareholders. Therefore, triple bottom line (TBL) reporting is a holistic and balanced reporting framework that reflects companies' transparency and accountability with regard to their economic, environmental and social performance dimensions. The impression about triple bottom line reporting paradigm is that companies' overall value should not be measured by just single financial bottom line but also by their environmental and social bottom lines. Companies around the world are discovering that proactive economic, environmental and social performance disclosures make significant contributions to shareholders' value and competitiveness. According to Anam et al. (2011), TBL reporting reveal a company's long term value creation through its intangible assets (particularly related to environment and social responsibilities) or the threat and opportunities the company faces in the market. It is also an established fact that companies through TBL reporting send signals to the market indicating their performance in terms of economic, environmental and social activities.

Furthermore, it has been observed that many companies are neither indebted to the environments and societies in which they carry out their economic activities nor show interest in promoting corporate responsiveness to other stakeholders, (Effiong et al., 2017). These companies still hold on to single bottom line reporting which often shows profitability. This reporting system does not give a holistic and adequate measurement of the firms' value as most at time non-financial and qualitative information are not given prominence. However, existing literature on the subject of triple bottom line reporting and shareholders' value added shows no unanimous conclusion regarding what the effect is and how it is achieved. For instance, Leszcnska (2012) found a serious gap between triple bottom line reporting and shareholders' value in terms of inclusiveness, relevance of information and neutrality. Nwobu (2015), on the other hand found a positive but insignificant relationship between sustainability reporting and shareholder's fund while Fauzi et al. (2010) observed that share price and market value of companies with higher triple bottom line disclosures are likely to be higher. Also studies such as Nobanee & Ellili (2016); Josee et al. (2014); Kuzey & Uyar (2016) etc were done outside Nigeria with different capital sophistication as well as different legal and institutional background. Their results were mixed, inconclusive and contradictory; ranging from positive to negative and statistically insignificant relationship.

Consequently, there is need for further studies because of the divergent findings and absence of unanimous conclusions regarding the effect of triple bottom line reporting and shareholders' value added. This study therefore looked at the effect of triple bottom line reporting on economic value added, market value added and cash flow return on investment of oil and gas companies.

Theoretical Background

This research work is anchored on major theories and these are the stakeholders' theory and agency theory. The stakeholder's theory is concerned with how the relationships with stakeholders' are managed in terms of acknowledgement, transparency and accountability. According to this theory, some stakeholders are very relevant to the organization and it is believed that the success of companies in terms of performance is dependent on the support of relevant stakeholders, (Aroweshegbe & Uniamikogbo, 2016). More so, this theory proposes an increased level of environmental awareness which creates the need for companies to extend corporate planning to include non-traditional stakeholders in order to adapt to changing societal demands. In addition to this, stakeholders' theory is premised on the notion that stakeholders expect companies to be socially and environmentally responsible so that there is a market

premium to enhance economic, environmental and social performance which in turn boost the shareholders' value.

The focus of this theory is that, the company exists to create and maximize the value of its shareholders. From this purview, other stakeholders "affected" or "likely to be affected" are irrelevant and do not form a part of the company's responsibilities. Critics of this theory argue that, every corporate entity uses 'environmental resources' which is 'a common inheritance' of all persons or groups where such resource(s) are located. It is also argued that, the extraction and use of these resources result in negative externalities which increase the social cost on all residents/inhabitants. Judging from the foregoing, it would only be fair to compensate the non-shareholders group whose common heritage had been exploited to their disadvantage and who also suffer the brunt of the operational externalities. This forms the basis of the crisis, (Effiong et al, 2017). The stakeholders' theory of corporate governance states that "*a company's directors owe a duty to all major stakeholders in the company including not just employees and customers but also communities and society as a whole*" (ICAN, 2014:423). The proponents of this theory argue that, individuals and society have some moral rights which the companies or business entities are duty-bound to respect or observe.

Agency, on the other hand, provides an explanation of the relationship which exists between managers of the firms and the shareholders especially with regards to the provision of financial and non-financial information (Margolis, 2007). Information asymmetry is known to exist between company managers and shareholders and this theory works out modalities on this. According to De Klerk and De Villiers (2012), adequate public disclosures by companies reduce the amount of risk perceived by investors. De Klerk and De Villiers (2012) stated that "Lack of adequate disclosure of both financial and non-financial information cause the market to undervalue shares of these companies". Furthermore, this theory states that the primary duty of directors is to run the companies in such a way that they maximize the long term value of shareholders and thus maximize the companies' profits and cash flows. Informational asymmetry assumes that accounting information disclosures put in place sufficient information that has value to stakeholders on the use of economic resources under the control of management.

Conceptual Framework

The phrase 'triple bottom line' was first coined by Elkington in 1994. It is a framework for reporting sustainability along its three performance dimensions of economic, environmental and social. Triple bottom line reporting goes beyond the traditional reporting system by reporting both financial and non-financial information about company's performances. According to Aroweshegbe & Uniamikogbo (2016), triple bottom line (TBL) goes beyond the construction of sustainable development and corporate social responsibility to involve an approach that accentuates economic prosperity, social development and environmental quality as an integrated method of doing business. Peiyuan et al. (2007), define TBL reporting as a subset of accounting and reporting that deals with activities, method and systems to record, analyze and report firstly, environmentally and socially induced financial impacts and secondly, ecological and social impacts of a defined economic system and thirdly, measurement, analysis and communication of interactions and links between economic and environmental and social issues. A lot of reasons have been advanced toward companies triple bottom line reporting. Among such reasons is the fact managers believe that it is economically rational to give back to the society and environment from which they draw economic resources and that the economic benefits from disclosures might offset any associated costs accompanying non disclosures. Another reason is that companies

believe that they should be accountable to various stakeholders on how they have used the environmental resources that have been entrusted to them, (Effiong et al., 2017). Savitz & Karl (2006) note that TBL reporting is one of the few practical mechanisms for companies to integrate new patterns of civil accountability and governance with business success model focused on deepening stakeholder's relationship around core non-financial and financial values and interests.

The idea behind TBL paradigm is that companies' ultimate success and values should not only be measured by just single financial bottom line but also by their environmental and social bottom lines. This reporting framework is supported by many international bodies such as Global Reporting Initiatives (GRI) and United Nations Global Impacts. The first component of TBL reporting is economic bottom line. This has to do with the impacts of corporate activities on the economic conditions of stakeholders and economic systems. This also involves the analysis of how the companies' stakeholders are directly and indirectly affected by these companies' commercial activities. According to GRI (2015), key performance indicators under this performance dimension include revenue generated and operating cost, payment to capital providers, policies and practices involving connections with local suppliers, procedure for local hiring, proportion of senior management hired from local communities etc. Environmental bottom line is the second component of this tripartite reporting framework. It has to do with organization impacts on the living and non-living natural systems. It is also concerned with the input/output mode of organizational impacts on the environment. Input has to do with the material consumption and output has to do with the end products and waste emissions, (GRI, 2015). Sustainability has its major focus on the environment, which is why sustainability is defined as the ability of the company to continue to exist and conduct business operations with no effects on the environment that cannot be offset or made good in some other way. Going beyond input output analysis, companies that subscribe to TBL ideology have a legitimate desire to see the environment improve as a result of their business operations. These set of companies also try to reduce their ecological footprint by carefully managing consumption of non-renewable energy (Alhaddi, 2015). According GRI (2015), key performance indicators under environmental performance dimension include material consumption by weight or volume, percentage of material recycled, energy consumption footprint, emission, effluent and waste, environmental management systems etc.

The third component of TBL is the social bottom line and this has to do with the disclosures of the impacts of corporate activities on social systems within which the companies operate. According to Atu (2013), companies that focus on social bottom line paradigm are often compensated with retention of competitive work force and decreased employee turnover. Social performance dimension is described as a set of outcomes that improve the company and in the end leads to the creation of value since it affects all the interest groups as well as the whole value chain. Key performance indicators under this bottom line include disclosures on labour practices and decent work, human rights, society, product responsibilities etc (GRI, 2015).

Shareholders' value added is one of the components of shareholders' wealth maximization which is the primary objective of companies. According to ICAN (2014), wealth maximization is taken as maximizing the market value of companies. Bhasin (2013) describes shareholders' wealth as creating values for the shareholders and this requires that firms undertake investment decisions that have positive net present values. From accounting perspective, value is created when management generates revenues over and above the economic costs used to generate these revenues including capital charge. Although used interchangeably,

there is a subtle difference between value creation and wealth creation. The value perspective is based on measuring value directly from accounting based information with some adjustments, while wealth perspective relies mainly on stock market information (Oana & Ciobanus, 2015). According to them, for a publicly traded firm, these two concepts are identical when management provides all pertinent information to capital markets and the markets believe and have confidence on management. This kind of information includes both financial and non-financial and this is achieved through triple bottom reporting.

According to ICAN (2014), shareholders' value can be measured in terms of economic value added (EVA), market value added (MVA) and cash flow returns on investment (CFROI). EVA is defined as economic benefit over profits that remain to the equity holders after considering all economic costs. It is a measure of performance that provides a useful assessment of how much wealth has been added to the shareholders during a period of time. EVA attempts to measure the value added to shareholders after making appropriate charge for capital employed. On the other hand, MVA equals the amount by which market value of the company's capital exceed the book value of the capital employed. MVA is an indication of how successful corporate leaders have utilized the company's assets in creating wealth for the shareholders. Cash flow is a powerful indicator of company's health and liquidity at a particular point in time. It provides an effective picture of a company's future growth and share price appreciation. CFROI is a real rate of return measure that identifies the relationship between cash generated by business relative to cash invested in it (ICAN, 2014).

Firm size has to do with the composite, large and multifarious nature of firms. As firms become bigger and more diversified, the more they attract greater attention from media, policy makers and regulators. As the size of the firm becomes complex and multifarious, conflict of interest and information asymmetry between shareholders and mangers increases, and this thus call for both mandatory and voluntary corporate disclosures. However, flowing from the provision of agency theory, there exist a positive correlation between corporate disclosures and firm size. This is because large firms have huge desire for external capital (Eng & Mak. 2003). Also many studies have shown positive relationship between firm size and triple bottom line reporting (Nwobu, 2015; Clarkson et al. 2010). In the same vein, Setyorini & Ishak (2012) found out that larger companies are more diversified across products and geographical markets and thus have greater need for disclosures to satisfy their diverse stakeholders.

Empirical Review

Buys et al. (2012), in their study found out that shareholders' wealth as measured by ROA, MVA, ROE and EVA of companies that disclose TBL practices are better but not statistically significant than those who do not report as per GRI guidelines. However, they noted that there is no evidence that GRI reporting firms are significantly more profitable in terms of ROE.

Furthermore, Cheung (2010) examined the impact of triple bottom reporting on market valuation and compared sustainability practices of major listed companies from 2010 to 2014 by surveying 495 companies in 25 emerging markets in Asia, East Europe, South Africa and America. The result of the study was inconclusive as there was no significant relationship between triple bottom line reporting and market valuation among Asian countries. Leszczynska (2012) examined the content of TBL reports prepared between 2005 and 2010 published by international companies and the extent to which the reports could contribute to shareholders' value. After an in depth analysis of these reports, it was found out that there was a serious gap

between TBL reporting and shareholders' value in respect of inclusiveness, relevance of information and neutrality. Venazi (2012) in his study, using agricultural firms listed on European stock exchange obtained a null and weak relationship between TBL disclosures and financial performance. However, the study concluded that this relationship is firm specific and recommended further studies in other sectors. In addition to this, Jones (2005) studied a sample of 36 manufacturing firms listed on the Australian stock exchange for period 2000-2003. Testing 3 hypotheses using multiple regression statistical tool, he found out that sustainability disclosures strongly and positively correlated with financial measures and negatively correlated with others. On the whole, the results indicated negative but weak association between GRI index scores and market adjusted returns.

Olanyinka & Oluwamayowa (2014) also conducted a similar study on corporate environmental disclosures on market value of quoted companies in Nigeria. The broad objective of this study focused on ascertaining the aggregate and individual impact of corporate environmental disclosure on market value. Descriptive research design was adopted and secondary data only were used. A sample of fifty firms quoted on Nigeria Stock Exchange (NSE) was purposively selected for analysis based on the availability of environmental disclosures in their annual reports. Three (3) hypotheses were tested using correlation coefficient. The findings revealed that the inclusion of environmental disclosure will enhance market value of companies. The study recommended that business should take caution in areas where environmental activities impacts negatively on the value of the firm and also invest in areas that enhance value for the firm.

Chiu et al. (2017) conducted a study on TBL reporting and shareholders' wealth: Evidence from Taiwanese manufacturing company. The paper investigated the economic benefits of sustainability performance and the value relevance of GRI report. It utilized a unique dataset of TBL reporting disclosed by Taiwanese manufacturing companies in their GRI report. Shareholders' wealth was measured with three benchmarks; stock returns, cash flow and stock prices. The generalized method of moment was adopted to control for potential endogeneity. This study found a positive relationship between TBL reporting and shareholder's wealth which suggests that managerial decisions aimed at sustainability are consistent with interest of shareholders' wealth. In addition, this paper found out that GRI guidelines provide relevant information in regard to firm value, while it plays merely a partial role in investor's investment.

In a similar study, Ameer & Othman (2012) conducted a study on triple bottom line practices and shareholders' value. This study focused on top 100 global sustainable companies which were mostly from developed economies. Measures of triple bottom line were based on scores for sustainability indices that made up of (22) items for environment, diversity (21), community (12), & ethical standards (13). Each item was scored from 0-4 based on disclosure in sustainability report. The study covered a period of 5 years from 2006 to 2010. Economic, environmental and social data were drawn from a content analysis of triple bottom line reports. Financial data were downloaded from Thomson financials Worldscope. Four (4) hypotheses were tested using multiple regressions and the research design adopted was descriptive research design. They found out that firms with higher sustainability disclosure scores had significantly higher mean sales revenue growth, ROA, EVA and EPS over the test period from 2006-2010. The study suggested bi-directional relationship between sustainability practices and shareholders' value. Conversely, Warren and Thomsen (2012) found no significant difference in financial performance of firms with high sustainability disclosures. However, they noted that

shares with high sustainability disclosures are likely to be larger, more liquid, easier to trade and hence more desirable for investors.

METHODOLOGY

This study adopted expost facto and longitudinal research designs were used. These methods relied on secondary data that are already in existence and could not be manipulated, as well as allowed the researchers to study the dynamics of change because the study involved more than one cross section within a ten year time series. The population of the study covered all the quoted oil and gas companies in Nigeria for 2007 to 2016 financial year. Specifically, the total number of quoted oil and gas companies in the Nigerian Stock Exchange (NSE) as at 2016 financial year was 13. However, only 12 oil and gas companies were active with available and accessible data on the floor of the NSE, hence the census method was adopted to select the twelve companies. The disclosure checklist developed in accordance with GRI disclosure guidelines was used for the collection of data on triple bottom line disclosures. Each disclosure item on the checklist was assigned the value of "2" if fully disclosed, "1" if partially disclosed and "0" if assumed relevant but not disclosure. The disclosure index was derived as the ratio of actual disclosures to expected disclosures. Descriptive statistics and panel data regression were the data analysis methods employed in the study. We conducted both the fixed and random effects estimation and made appropriate choices using Hausman Specification test statistics with the necessary diagnostic tests.

Model Specification

The models used in this study are as stated below:
SVA = f(TBLR)
Where:
SVA = EVA, MVA & CFROI.
TBLR = ECPD, ENPD & SOPD

$EVA_{i,t} = a_o + a_1ECPD_{i,t} + a_2ENPD_{i,t} + a_3SOPD_{i,t} + a_4FMSZ_{i,t} + v_i + e_{i,t}$

$MVA_{i,t} = b_o + b_1ECPD_{i,t} + b_2ENPD_{i,t} + b_3SOPD_{i,t} + b_4FMSZ_{i,t} + v_i + e_{i,t}$

$CFROI_{i,t} = c_o + c_1ECPD_{i,t} + c_2ENPD_{i,t} + c_3SOPD_{i,t} + c_4FMSZ_{i,t} + v_i + e_{i,t}$

Where;

a_o, b_o, c_o = the intercept term

$a_1, a_2, a_3, a_4, b_1, b_2, b_3, b_4, c_1, c_2, c_3, c_4$ = the regression parameters (that is, coefficient of explanatory and control variable.

SVA = shareholders' value added
EVA = economic value added of firm i in period t
MVA = market value added of firm i in period t
CFROI = cash flow return on investment of firm i in period t
ECPD = economic performance disclosures of firm i in period t
ENPD = environmental performance disclosures of firm i in period t
SOPD = social performance disclosures of firm i in period t
FMSZ = firm size of firm i in period t (moderating variable)

RESULTS AND DISCUSSION

Table 1 show the descriptive statistics of triple bottom line cumulative disclosure index of the oil and gas companies studied between 2007 and 2016. Mobil, Forte and MRS had the highest economic performance (ECPD) index of 0.7680, 0.7380 and 0.7370 respectively, while the oil and gas companies with the least economic performance disclosures (ECPD) index was Japaul Oil & Maritime Servicing with disclosure index of 0.5728.Also in terms of environmental performance disclosures (ENPD), MRS plc took the lead followed by Total plc and Capital oil plc with disclosure indices of 0.4530, 0.4490 and 0.4430 respectively. However, oil and Gas Company with the least environmental performance disclosure index was Mobil plc with 0.4135. The social performance disclosure index of the firm reveals that Seplat Petroleum Development had the highest mean disclosure index of 0.5245. This was followed by Japaul Plc. with a mean disclosure index of 0.5163. The company with the least social performance disclosure index was Beco with 0.4015. This result shows that no company fully complied with the GRI disclosures requirements.

Table 1
TRIPLE BOTTOM LINE CUMULATIVE DISCLOSURES INDEX OF OIL AND GAS COMPANIES IN NIGERIA (2007 TO 2016)

Comp		ECPD	ENPD	SOPD
1. Total Nigeria	Mean	0.7231	0.4494	0.5120
	N	10	10	10
	Std. Deviation	0.05460	0.04740	0.06159
2. Seplat Petroleum Development	Mean	0.7105	0.4284	0.5245
	N	4	4	4
	Std. Deviation	0.02921	0.03328	0.03125
3. Oando	Mean	0.7240	0.4138	0.4760
	N	10	10	10
	Std. Deviation	0.04121	0.06521	0.07260
4. Rak Unity	Mean	0.7105	0.4248	0.4526
	N	10	10	10
	Std. Deviation	0.05864	0.07048	0.04824
5. MRS(Texaco Chevron)	Mean	0.7370	0.4530	0.4826
	N	10	10	10
	Std. Deviation	0.07110	0.06532	0.07466
6. Mobil Nig	Mean	0.7680	0.4135	0.4900
	N	10	10	10
	Std. Deviation	0.05728	0.06864	0.05163
7. Japaul Oil & Maritime Serv	Mean	.5650	0.4340	0.4461
	N	10	10	10
	Std. Deviation	.07231	0.06100	0.14350
8. Beco Petroleum	Mean	0.7001	0.4346	0.4015
	N	10	10	10
	Std. Deviation	0.05078	0.05512	0.14026
9. Forte Oil (Ap)	Mean	0.7380	0.4230	0.4680
	N	10	10	10
	Std. Deviation	0.05760	0.08676	0.14160
10. Eternaoil	Mean	0.6870	0.4234	0.4120
	N	10	10	10
	Std. Deviation	0.05442	0.08894	0.10270
11. Conoil	Mean	0.6850	0.4312	0.42210

	N	10	10	10
	Std. Deviation	0.05020	0.06484	0.122106
12. Capital Oil	Mean	0.6251	0.4430	0.4502
	N	10	10	10
	Std. Deviation	0.08162	0.06082	0.10842
Total	Mean	0.6832	0.4321	0.4589
	N	114	114	114
	Std. Deviation	0.07083	0.06337	0.10331

Source: Research data (2018)

Table 2 reveals the descriptive statistics on company by company performance in terms of EVA, MVA and CFROI. The table shows that the log of economic value added (EVA) of oil and gas companies in Nigeria ranges from 1.6790 to 7.8634 with Rak Unity taking the lead. Also, the log of market value added (MVA) of oil and gas companies in Nigeria vary from 0.0000 to 10.1824 with Seplat taking the lead. More so, cash flow return on investment (CFROI) of the first three companies with the highest level of performance were: Mobil Nig (19.2740), Conoil (14.7670) and Japaul Oil & Maritime Servicing (14.1350), while the company with least cash flow return on investment (CFROI) was Rak Unity (-0.6680). The log of total assets (TA) ranged from 6.2495 to 9.5634 with Beco Petroleum taking the lead.

Table 2
CUMULATIVE PERFORMANCE INDEX OF OIL & GAS COMPANIES IN NIGERIA (2007 TO 2016)

Comp		CFROI	lgEVA	lgMVA	lgTA
Total Nigeria	Mean	12.5384	5.0996	3.4924	7.8254
	N	10	10	10	10
	Std. Deviation	8.78314	2.71341	3.7032	0.16887
Seplat Petroleum Development	Mean	10.95845	4.6342	10.1824	9.0827
	N	4	4	4	4
	Std. Deviation	8.3492	3.136121	0.13434	0.69375
Oando	Mean	3.3480	2.0840	0.0000	8.66721
	N	10	10	10	10
	Std. Deviation	6.74360	3.132612	0.00000	0.25883
Rak Unity	Mean	-0.6690	7.8634	4.9631	9.2841
	N	10	10	10	10
	Std. Deviation	3.8674	0.12319	4.32050	0.21484
MRS(Texaco Chevron)	Mean	3.9400	2.4703	2.0895	7.5852
	N	10	10	10	10
	Std. Deviation	15.0674	3.18225	3.37055	0.34509
Mobil Nig	Mean	19.2740	5.1380	5.0547	7.5239
	N	10	10	10	10
	Std. Deviation	7.23540	2.72075	3.50329	0.18763
Japaul Oil & Maritime Serv	Mean	14.1350	1.6790	1.29943	7.4824
	N	10	10	10	10
	Std. Deviation	30.51924	2.70857	2.72685	0.090342
Beco Petroleum	Mean	6.0850	7.2447	7.2777	9.5634
	N	10	10	10	10
	Std. Deviation	6.46260	0.406752	0.37352	0.06326
Forte Oil (Ap)	Mean	4.5980	2.1056	4.8288	7.8979
	N	10	10	10	10
	Std. Deviation	16.90262	3.24889	4.17005	0.22124

Eternaoil	Mean	2.1560	2.3163	1.4027	7.1578
	N	10	10	10	10
	Std. Deviation	25.91621	3.00236	2.95435	0.30659
Conoil	Mean	14.7660	3.2858	0.7379	7.7804
	N	10	10	10	10
	Std. Deviation	27.58178	3.44553	2.30316	0.14459
Capital Oil	Mean	1.4260	2.2345	1.8564	6.2490
	N	10	10	10	10
	Std. Deviation	8.52141	2.74125	2.41088	0.08620
Total	Mean	7.5054	3.7920	3.2488	7.9421
	N	114	114	114	114
	Std. Deviation	17.17281	3.34108	3.78300	0.92841

Table 3 presents the correlation analysis for the variables of the study. The result shows that there is a weak positive relationship between economic performance disclosure and environmental performance disclosure ($r=0.024$, $p<0.05$); economic performance disclosure and social performance disclosure ($r=0.055$, $p<0.05$); environmental performance disclosure and social performance disclosure ($r=0.0198$, $p<0.05$). All the triple bottom line variables have a low correlation with the control variable suggesting that the variables do not appear to measure the same thing. In addition to this, the analysis also suggests the absence of multicollinearity indicatingthat the independent variables are not measuring the same thing. This is also confirmed by the variance inflation factor (VIF) result which shows a mean VIF of 1.084 for ECPD; 1.042 for ENPD, 1.074 for SOPD and 1.052 for logTA, which are all below the threshold value of 10.

Table 3
CORRELATIONS MATRIX FOR TRIPLE BOTTOM LINE DISCLOSURE AND PERFORMANCE INDICATORS

		ECPD	**ENPD**	**SOPD**	**CFROI**	**lgEVA**	**lgMVA**	**lgTA**
ECPD	Correlation	1						
	Sig. (2-tailed)							
ENPD	Correlation	0.027	1					
	Sig. (2-tailed)	0.779						
SOPD	Correlation	0.057	0.0196*	1				
	Sig. (2-tailed)	0.176	0.036					
CFROI	Correlation	0.034	0.074	0.094	1			
	Sig. (2-tailed)	0.709	0.414	0.330				
lgEVA	Correlation	0 .282**	0.012	-0.030	0.081	1		
	Sig. (2-tailed)	0.002	0.916	0.734	0.388			
LgMVA	Correlation	0.217*	-0.021	0.136	-0.035	0.460**	1	
	Sig. (2-tailed)	0.020	0.833	0.152	0.734	0 .000		
LgTA	Correlation	0.214*	-0.040	0.017	-0.022	0.372**	0.276**	1
	Sig. (2-tailed)	0.021	0.654	0.869	0.835	0.000	0.002	
**. Correlation is significant at the 0.01 level (2-tailed).								
s*. Correlation is significant at the 0.05 level (2-tailed).								

Table 4 presents analysis to ascertain that the random effects model was significant and not zero (which implies that there is presence of unobserved effect in the model). The Lagrangier Multiplier test above shows that the chi-square ((X^2=13.07, 104.06, 0.18) are significant for EVA and MVA since the p-values are 0.0001, 0.000. However, the chi-square for CFROI was insignificant with a p-value of 2.3301. This means that the variance of the random effect is not equal to zero and that random effect is appropriate for all items except cash flow return on

investment. The next approach was the selection and reliance between the random effects model or the fixed effects model which is basically conducted using the Hausman specification test Table 5. The result shows that the chi-square (X^2=-2.15, 8.89, 15.04) is not significant since p-values = 0.46, 0.45, 0.86 (p>0.05). Thus, the result suggests that there is no significant difference between the coefficients of the random effects and the fixed effects; hence random effect prevails for this model.

Table 4
LAGRANGIAN MULTIPLIER TEST OF SHAREHOLDERS' VALUE ADDED

H0: Variance = 0			
	M1(eva)	M2(mva)	M3(cfroi)
chi2 (1)	13.07	104.06	0.18
Pro > chi2	0.0001	0.000	2.2301

Source: Research data (2018)

Table 5
HAUSMAN SPECIFICATION TESTOF SHAREHOLDERS' VALUE ADDED (MODEL 1)

H0: difference in coefficient not systematic			
	M1(eva)	M2(mva)	M3(cfroi)
chi2 (1)	-2.15	8.89	15.05
Pro > chi2	0.46	0.45	0.86

Source: Researcher data (2018)

Table 6 presents the random effect regression estimates for the effects of triple bottom line reporting on shareholders' value added. The random effects model was further tested for heteroskedasticity and auto correlation. The results of the modified Wald test for heteroskedasticity with probability values (P<0.01) and Wooldridge test for autocorrelation with probability values (P<0.00) show the presence of both problems in the model and its associated variables. In order to stem the problems of autocorrelation and heteroskedsaticity in the model, the robust standard error estimates based on the stata command "xtreg cluster (code)" was applied. Using random effects estimation, R^2 for economic value added (EVA) is 57%. This shows that variation in EVA is explained by TBLR index by 57% while 43% is explained by other factors not captured in the model. R^2 for market value added (MVA) is 10.14% implying that only 10.14% changes in MVA is as a result of triple bottom line reporting while 89.86% is caused by other factors not captured in the model. Also the R^2 of the random effect regression of cash flow return on investment (CFROI) is 60.72%. This shows that 60.72% changes in CFROI is as a result of TBL reporting while 39.28% is caused by other factors not captured in the model. On the whole, these results show the variation in shareholders' value added that is explained by the independent variables.

Table 6
RANDOM EFFECTS REGRESSION RESULTS FOR SHAREHOLDERS' VALUE ADDED

	s	M1(EVA)	M2(MVA)	M3(CFROI)
Variables	Exp Sign	β (t stat)	β (t stat)	Sβ (t stat)
Constant		-11.889 (-3.82)**	-13.132 (-2.810)**	-9.015 (-2.363)**
Ecpd	+	9.424 (2.56)**	6.801 (1.329)	8.414 (2.900) **
Enpd	+	1.813 (0.40)	-3.710 (-0.612)	1.832 (0.403)
Sopd	+	-2.738	3.909	2.094

		(-0.96)	(0.965)	(0.718)
Logta	+	1.207 (3.17)**	4.413 (1.311)	1.515 (4.756)**
R Square		0.5700	0.1014	0.6072
		58.82	16.04	56.92
Wald chi 2		0.0101	0.0020	0.0002

Notes: The coefficient values are presented with the t-statistics in the parenthesis, *p<.10; **p<.05; ***p<.01, probabilities represent one-tailed when the direction of the coefficient is consistent with expectations, two-tailed otherwise).

In addition to this, Table 6 shows the individual effects of economic, environmental and social performance disclosures on the shareholders' value added components. It was observed that economic performance disclosure (ECPD) (t-stat. = 2.56> $t_{0.05}$ = 1.96) significantly affect the economic value added (EVA) of oil and gas companies in Nigeria except for environmental and social performance disclosures. The effect in the relationship is also positive (β =9.424) and significant at the 5% level of significance for economic performance disclosure. The high and statistically significant value of the wald chi^2 (58.96) confirms the overall significance of the model and the predictive power of the independent variables including unobserved and moderating variable.The environmental performance disclosure (ENPD) and social performance disclosure (SOPD) (t-stat. = 0.40, -0.96< $t_{0.05}$= 1.96) do not significantly affect economic value added (EVA) of oil and gas companies in Nigeria.

More so, the results on the individual effects of economic, environmental and social disclosures on the market value added (MVA) of oil and gas companies in Nigeria shows that at 5% level of significance, economic, environmental and social performance disclosures (t-stat. = 1.329, -0.612, 0.965< tabulated t-value = 1.96) respectively do not significantly affect the market value added (MVA) of oil and gas companies in Nigeria. However, the coefficient of the independent variable (β=6.801,-3.710, 3.909) for the economic, environmental and social performance disclosures respectively were positive for both economic and social performance disclosures butnegative for environmental performance disclosures. Results of the individual effects of economic, environmental and social disclosures on the cash flow return on investment (CFROI) of oil and gas companies in Nigeria show that at 5% level of significance, economic performance disclosure (ECPD) (t-stat. = 2.900> $t_{0.05}$ = 1.96) significantly affect the cash flow return on investment. The effect in the relationship was also positive (β =8.414). However, Environmental performance disclosure (ENPD) and social performance disclosure (SOPD) (t-stat. = 0.403, 0.718< $t_{0.05}$= 1.96) do not significantly affect the CFROI of the oil and gas companies in Nigeria. Although, the coefficients (β=1.832, 2.094) of the two independent variables were positive for environmental and social performance disclosures respectively.

This study employed moderating variable (firm size) that has been found by previous studies to be associated with shareholders value added. The results from Table 6 shows that firm size (FMSZ) as measured with the log of total assets shows a significant positive relationship with economic value added and Cash flow ratio at 5% level of significance (p=0.05), revealing that the larger the size of the company the more will be the shareholders' value added.

DECOMPOSED DISCUSSION OF EMPIRICAL FINDINGS

Triple Bottom Line Reporting and Economic Value Added

The result of the hypothesis tested in Table 5 shows that the overall effect using wald chi^2 of the panel regression result (X^2=58.82, p= 0.010) indicate the fact that economic, environmental and social performance disclosures significantly affect economic value added of oil and gas companies in Nigeria. The overall result was supported by Ekwueme et al. (2013) who added that triple bottom line reporting positively affects the prosperity of a firm and its value added. These findings corroborate our assumptions that adequate measurement of the firms' value can only be achieved through disclosures of economic, environmental and social performance activities of the companies which in the long run may lead to improved economic value added. This finding is also consistent with findings of previous studies (Nobanee & Ellili, 2016; Reintjes, 2017; Kuzey & Uyar, 2016). The plausible reason could be that these disclosures have improved the quality of relationship with stakeholders (government, customers, host communities etc), improve corporate reputation and thus enhance the value of the firm. This in turn stimulates earnings to exceed required rate of return that shareholders could get by investing in other investments of comparable risk. However, this finding is at variance with the work of Warren and Thomsen (2012) who found no significant effect of TBL reporting on economic value added of UK companies. In a similar study, Leszcznska (2012) found a serious gap between TBL reporting and EVA of companies listed on Malaysian Stock Exchange.

Triple Bottom Line Reporting and Market Value Added

The overall result using wald chi square of random effect regression (Table 6) gives an outcome of 16.04 with an accompanying p-value of 0.020 (p-value < 0.05]. This confirms that economic, environmental and social performance disclosures significantly affect market value added (MVA) of the companies. The controlling variable (total assets) as well as other unobserved variables contributed significantly to the overall positive effect of triple bottom line reporting on market value added. Although the individual effect in the random effect analysis shows that economic, environmental and social performance disclosures do not significantly affect the market value added (MVA) of oil and gas companies in Nigeria. The implication of this is that disclosure on only one or two aspects of triple bottom line reporting may not significantly affect the market value added of companies. This overall result was supported by a number of studies (Ekwueme et al, 2013; Fauzi et al, 2014; Nobanee & Ellili, 2016; Ekwe et al., 2017) who established a positive relationship between sustainability disclosures and Market value added. The possible reason for this could be that TBL reporting reveals the companies' long term value creation through its intangible assets particularly relating to environmental and social responsibilities or the possible risks and opportunities they face in the market. Also, this significant effect could be attributable to the signaling effect of TBL reporting as increasing transparency and accountability through TBL reporting could reduce misevaluation of shares.

Conversely, other studies showed different results. Detre & Gunder (2011) found a negative relationship between economic, environmental and social performance disclosures and market value added. Jones (2005) also observed that triple bottom line reporting strongly and positively associate with return on asset and net profit margin but negatively associate with market value added.

Triple Bottom Line Reporting and Cash flow Returns on Investment

The overall result using wald chi square of random effect regression (Table 6) gives an outcome of 56.92 with accompanying p-value of 0.0002. This indicates that the economic,

environmental and social performance disclosures significantly affect cash flow return on investment (CFROI) of oil and gas companies in Nigeria. Although, economic performance disclosure had a positive and significant effect on cash flow return on investment; this was not the case for environmental and social performance disclosure. The overall result was corroborated by Kuzey & Uyar (2016) who found a positive and significant association between economic, environmental and social performance disclosures and cash flow returns on investment of listed Turkey companies. In addition to this, Josee et al. (2014) explain that the reason for this positive association could be as a result of firms' commitment to intangible resources. He noted that the companies' reputation for being committed to sustainability is an intangible resource that increases the value of firms expected cash flow returns and reduce variability in cash flows. On the other hand, this finding was also contradicted by Oraka & Egbunike (2016), who established that, environmental disclosure has no significant effects on CFROI.

CONCLUDING REMARKS AND RECOMMENDATIONS

This study examined the effect of triple bottom line reporting on shareholders' value added of oil and gas companies. The findings revealed that triple bottom line reporting significantly affect economic value added, market value added and cash flow returns on investment of oil and gas companies. The implication of these findings is that adequate disclosures of companies financial and non-financial information gives adequate measurement of the firm's value as well as send positive signals to the market concerning firms' sustainability performances. Thus, it was concluded that the corporate strategies of reporting the organizational footprints on the environment, social systems and economic condition of stakeholders, maximize shareholders' value of oil and gas companies. Thus, triple bottom line reporting plays an important role in the sustainability and growth of a firm. The tripartite reporting framework of economic, environmental and social performance disclosures creates a platform of civic responsibility and transparency that endears companies to all stakeholders. Hence, practice of transparency and accountability highlights the importance of corporate governance in contributing to both corporate prosperity and responsibility. Based on these findings, the study recommends that management of oil and gas companies should make the adoption of this reporting framework compulsory given the fact that triple bottom line reporting significantly affects shareholders' wealth. In addition to this, the study recommends that Securities and Exchange Commission (SEC) should enshrine triple bottom line reporting as one of the listing requirements especially to environmentally exposed companies.

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