

INFLUENCE OF ENVIRONMENTAL ACCOUNTING ON THE PERFORMANCE OF PHARMACEUTICAL COMPANIES IN NIGERIA

Mubaraq SANNI (Ph. D)¹&Kayode David KOLAWOLE²

Abstract

Environmental accounting has the potential to provide key information that policymakers can use to understand the state of the environment. However, the haste to develop the Nigerian nation does not always incorporate pollution control and waste management into environmental management plan. Hence, this study primarily evaluated the influence of environmental accounting on the performance of pharmaceutical companies in Nigeria. The study specifically examined the determinants of environmental accounting in pharmaceutical companies in Nigeria as well as the effect of environmental accounting on the profitability of pharmaceutical companies in Nigeria. Finally, the study examined the effect of environmental accounting on shareholders' wealth maximisation in pharmaceutical companies in Nigeria. The study employed secondary data which was obtained from the financial statements of all listed pharmaceutical companies in Nigeria. Panel data regression analysis was used to achieve the objectives of the study. Results of the study revealed that there was a positive relationship between measures of performance and environmental accounting reports (such as community development and expenses incurred on employees' welfare). The study concluded that environmental accounting positively influenced the performance of pharmaceutical companies in Nigeria. The study thus recommended that pharmaceutical companies should ensure that they spend more on the welfare of their employees so as to encourage them in putting their best in the company which often lead to an enhanced performance.

Introduction

Financial statements are documents used by internal and external users for various purposes. They are priceless in the formulation of framework for achieving a holistic appraisal of firms' performance. Recently, reporting environmental and societal concerns in the financial statements appear to be one of the expectations of stakeholders. Accounting for environment is a relatively new development to many organisations which is the purview of accounting disclosures. Environmental information provides the channel through which firms address the needs of stakeholders and the basis for dialogue between the stakeholders and the firm. Communicating effects of an organisation's activities on the environment to stakeholders and members of the society cannot be over-emphasised. Increasing awareness and demands by the organisations to be socially responsible has led to divergent views from various scholars (Deegan& Ranking, 1996, Osemene, Kolawole&Oyelakun, 2016).

Environmental accounting adopts a comprehensive approach which ensures transparent corporate governance related to the society. It is a means by which companies report all the

associated environmental costs and expenses incurred. Several countries (such as Nigeria, Ghana and Kenya) are yet to enforce environmental disclosures. Hence, in such countries practicing voluntary disclosure, companies can decide what to report in their financial statements (Ndukwe& John, 2015). Many organisations in Nigeria are driven by the quest for profits to the detriment of all the stakeholders. Some fail to respond to the needs of host communities, employees' welfare needs (cheap labour often preferred), environmental protection and community development (Osemene, 2012). However, in recent times the expectation of social services from corporate firms has become very high in Nigeria, failure of which often results to severe destruction of companies' properties by aggrieved firms' stakeholders, civil unrest and disobedience to the law and order in Nigeria. Companies often implicated in pollution of the operational environment are manufacturing and mining companies. According to Osemene and Olaoye (2009), pollution from such companies are in form of noise, air, water and it so severe in Nigeria due to the inability of various government to fix the power problem. Aside the pollution from their business activities, fumes from generators contribute severe challenges to fresh air and arable land.

Hence, this study examined the effect of environmental accounting on the performance of pharmaceutical companies in Nigeria. Specifically, the study examined the determinants of environmental accounting in pharmaceutical companies in Nigeria as well as the effect of environmental accounting on the profitability of pharmaceutical companies in Nigeria. Finally, the study examined the effect of environmental accounting on shareholders' wealth maximization in pharmaceutical companies in Nigeria. The hypotheses for this study were stated in null forms as follows: (H₀₁) No specific factors that determine environmental accounting in pharmaceutical companies in Nigeria; (H₀₂) Environmental accounting does not have significant effect on the profitability of pharmaceutical companies in Nigeria; and (H₀₃) environmental accounting does not have any significant effect on the shareholders' wealth maximisation in Nigeria.

Literature Review

Environmental accounting entails the provision of appropriate information in the financial statements regarding the estimated social cost occasioned by the production externalities on the environment and how much deliberate intervention cost had been incurred to bridge the gap between the marginal social cost and the marginal private cost by a firm.

Magara, Aming and Momanyi (2005) opined that environmental accounting involves the identification, measurement and allocation of environmental costs, and the integration of these costs into business. It also encompasses the means of communicating the information to the companies' stakeholders. Enahoro (2009) averred that environmental cost does not only refer to costs paid to comply with regulatory standards, but are also costs incurred to reduce or eliminate releases of hazardous substances into the atmosphere.

According to Weng, Chen and Chen (2015), environmental accounting is also referred to as green accounting and it measures (in economic terms) the performance of firms in respect to the environment. It involves the identification, measurement and reporting of environmental specific cost, for example liability cost and waste disposal cost. It covers more than reporting

or accounting for environmental cost and benefits. It is the accounting for any cost or benefit that occurs from changes in an organisation's product or process, while the change can also have impact on the environment. It plays a major role in understanding the significant contribution of the natural environment to the economy and humanity survival (Baba, 2012; Boyd, 1998). Any organization that incorporates the improvement of quality of life of habitants into their operations, will most likely experience some improvements their financial performance due to enhanced image, increased company's shares due to enhanced product image and environmental risk rating (Weng, Chen & Chen, 2015). Unethical business practices are no longer fashionable even in a country as poverty-ridden as Nigeria. Such practices only attract negative image to any organization on a result of undue media attention, in the print and electronic media (Osemene, 2012).

Human rights cannot be infringed upon anyhow just in the same way business reputation must be guarded jealously due to quick information flow through various media such as mobile telephoning, newspapers and magazines, television, radio and the internet. Diffey (2007) stressed further that companies without ethical responsibilities most often fail sooner or later, and that big organisations appear to understand this. They thereby set up strategies to reveal their social responsibilities in their financial statement. Companies with ethical responsibility policies seem to have the best workers, shareholders, customers and a happier community and society. The economy and the capital market also recognise that sustainable companies are businesses of the future.

A French poll on environmental accounting indicates that employees are seen as the most important stakeholders' group towards whom corporation have to exercise their social responsibility (Humiere & Chanveau, 2001). Employees can act as agents for social change when they push corporations to adopt socially responsible behaviour (Aguilera, Rupp, Williams & Ganapathi, 2007). Buttressing the importance of employees on social responsible behaviour, Ramus and Steger (2000) pointed out that environmental policy demonstrates that employees' support is necessary to secure effective development of communities.

Environmental accounting is likely to influence employees' attitude and behaviours of the customers in purchasing the goods of the firm which will in turn enhance the profitability of the companies only if they are aware of past social sensitivity actions. Also, communicating them inside the corporation influences employees' perception. Long-term environmental programmes provide a more cost efficient alternative, especially to select more efficient production process and raw materials source usage that can be recycled as well as cheaper energy sources diversification. Company environmental programmes can improve performance and increase an investor's interest. Therefore, environmental disclosure is intended to improve information usefulness that is based on management's evaluation which will help companies to deliver good news (Dillard, Jesse, Brown & Marshall, 2005). Disclosure of company image is expected to improve stakeholder's perception which will in turn increase shareholder's value.

Theoretical Framework

This study is hinged on two theories. They are the utilitarian and the stakeholders' theories.

Utilitarian Theory

Utilitarian theory was propounded by Smart in 1973. The theory posits that corporations serve as part of economic systems with a mechanical function, that is, profit maximisation. The need for economics of responsibility in the business ethics of corporations, led to the emergence of environmental accounting. According to Osemene, Kolawole and Oyelakun (2016), the old idea of laissez faire business gives way to determinism, individualism to public control, and personal responsibility to social responsibility. Utilitarian theory is seen as the instrument of wealth creation, and its social activities are the only means to achieve economic results.

Friedman (1970) asserted that corporations need to invest in the local community, in which it can be able to provide resources and amenities for the community. Piercy (2008) further divides the utilitarian theories into two: the social costs of the corporation and the functionalism idea. The social cost theory has a basis for environmental accounting in which the socio-economic system in the community is said to be influenced by the corporate non-economic forces. The utilitarian theory therefore suggests that the corporation must accept social duties and rights to participate in social corporation.

The functionalist theory specifically advocates that the corporation is seen as part of the economic system whose main goal is to make profit. The firm is seen as an investment which should generate profits. Therefore, it may be concluded that environmental accounting is coined as a defense tactic of the industrial system against external attacks because of the need to provide a balance between profitability and social objectives for the economic systems equilibrium.

Stakeholder Theory

The term "stakeholder theory" means that each group has a stake or vested interest in the way the firm is operated. According to Akinsulire (2011), the traditional view is that the firm is run in order to maximise the wealth of the shareholders. There is an alternative view that the firm is a coalition of different groups such as equity shareholders, preference shareholders, lender, employees, suppliers, customers, government and the community. Lasher, Hedges and Fagerty (2006) opined that these interested groups can be called stakeholders in or constituencies of the company. Conflicts of interest sometimes arise among stakeholders' groups. Conflict of interest occurs when something that benefits one group deprives another group. These conflicts can affect managers' behaviour and therefore have impact on share prices.

The stakeholder's theory proposed an increased level of environmental awareness which creates the need for companies to extend their corporate planning to include the non-traditional stakeholders like the regulatory adversary groups in order to adapt to changing social demands (Trotman, 1999). The basic proposition of the stakeholder theory is that the firm's success is dependent upon the successful management of all the relationships that a

firm has with its stakeholders. The main concern of the stakeholder theory in environmental accounting is to address the environmental cost elements and valuation and its inclusion in the financial statements.

Empirical Review

Makori and Jagongo (2013) examined environmental accounting and profitability of firms in India. The data used for the study were collected from annual reports of 14 randomly selected quoted companies in Bombay Stock Exchange in India. With the aid of multiple regression models, the key findings of the study showed that there was a significant negative relationship between environmental accounting and return on capital employed.

Akrouth and Othman (2013) examined the determination of corporate environmental disclosure in MENA emerging markets. The findings of the study revealed a negative and significant relationship between environmental disclosure and family ownership. Juhmani (2014) conducted a study on the determination of corporate social and environmental disclosure in Bahrain. His findings revealed that 57.57% of the sampled listed companies provided environmental information in their 2012 financial statement on their websites. Commercial banks and insurance companies made the most disclosure of social and environmental accounting, while the least disclosure was made by companies in the hotels and tourism sector and industrial sector. Beredugo and Mefor (2012) studied environmental accounting, reporting and sustainable development in Nigeria. With the aid of Pearson correlation coefficient and ordinary least square, the study discovered that there was a significant relationship among environmental accounting, reporting and sustainable development. Furthermore, Osemeneet *al.* (2016) investigated the effects of environmental accounting practices and sustainable development on the performance of Nigerian listed manufacturing companies. Data were extracted from annual reports and accounts of thirty-six randomly selected quoted companies in Nigeria. Using panel data regression analysis, the results of the study revealed that there was a significant positive relationship among sustainable development, return on equity (ROE), and return on assets (ROA); and a significant positive relationship between environmental accounting and return on equity (ROE).

Research Gaps and Contributions to Knowledge

Academic interest in the topic of environmental accounting is evident by the level of attention it has received over the last few decades. Studies (such as Dibia&Onwuchekwa, 2015; Emeakponuzo&Udih, 2015) were carried out on the determinants of environmental accounting in manufacturing companies. Agbiogwu, Ihendinihu and Okafor (2016) also examined environmental accounting on the performance of manufacturing companies using variables of return on equity as measurement of manufacturing companies' performance. However, the previous studies failed to examine the impact of environmental accounting on the stockholders' wealth maximisation in pharmaceutical companies in Nigeria. The use of the stockholders' wealth maximisation is important because it represents what each stockholder earns per every single stock held in a firm. Furthermore, the previous studies considered environmental accounting as a whole variable without considering the different aspect of environmental accounting. Hence, this study uniquely segregated environmental

accounting into environmental accounting on employees’ welfare and environmental accounting on community development, thereby considering the internal environment and external environment. The study hence contributes to the existing body of knowledge by filling part of the identified gap.

Methodology

In order to examine the impact of environmental accounting on the performance of pharmaceutical companies in Nigeria, secondary data was obtained from financial statement of nine selected pharmaceutical companies in Nigeria. This study considered nine pharmaceutical companies because they are the listed pharmaceutical companies in Nigeria. However, the population comprises all the pharmaceutical companies operating in Nigeria while a sample size of all the nine pharmaceutical companies listed on the Nigerian Stock Exchange was chosen for the study. The nine pharmaceutical companies listed in Nigeria were chosen because of the prompt publication of their financial statement and the availability of the financial statement. The data obtained from the financial reports of the sampled pharmaceutical companies covers the period of seven years (2009 – 2015) and they were analysed with the use of panel least square method of multiple regression analysis. Panel data regression analysis was appropriate for the study because the data for the study was collected over time and not less than nine pharmaceutical companies were listed on the Nigerian Stock Exchange. The model specification for the study was specified as:

$$ENVA = f(FMS, PAT, LEV) \dots\dots\dots (i)$$

$$ENVA_{it} = \beta_0 + \beta_1 FMS_{it} + \beta_2 PAT_{it} + \beta_3 LEV_{it} + \mu_{it} \dots\dots\dots (ii)$$

Where:

β_0 = Constant

ENVA = Environmental Accounting

FMS = Firms’ Size (Proxy with Total Assets)

PAT = Profit after Tax

LEV = Leverage

μ_{it} = Error term

The second model was used to examine the impact of environmental accounting on profitability of manufacturing companies quoted on the Nigerian Stock Exchange which was specified as:

$$ROE = f(ENVA) \dots\dots\dots (iii)$$

$$ENVA = f(EH, CD) \dots\dots\dots (iv)$$

Substituting equations (iii) into equation (iv), the equation thus gives a multivariate relationship.

$$ROE = \beta_0 + \beta_1 EH_{it} + \beta_2 CD_{it} \dots\dots\dots (v)$$

Econometrically, it can be written as:

$$ROE_{it} = \beta_0 + \beta_1 EH_{it} + \beta_2 CD_{it} + \mu_{it} \dots\dots\dots (vi)$$

Where:

ROE= Return on Equity

EH= Environmental Accounting on Employees’ Welfare

CD= Environmental Accounting on Community Development
 μ_{it} = error term.

The third model which was intended to fill the identified gap was used to examine the impact of environmental accounting on shareholders’ wealth maximization of manufacturing companies listed on the Nigerian Stock Exchange. Earnings per share (EPS) served as the dependent variable while environmental accounting on employees’ welfare and environmental accounting on community development represented the independent variables. The model was specified as:

$$EPS = f(ENVA) \dots\dots\dots (vii)$$

$$ENVA = f(EH, CD) \dots\dots\dots (viii)$$

Substituting equations (vii) into equation (viii), the equation thus gives a multivariate relationship, as presented below:

$$EPS = \beta_0 + \beta_1 EH_{it} + \beta_2 CD_{it} \dots\dots\dots (ix)$$

Econometrically, it can be written as:

$$EPS_{it} = \beta_0 + \beta_1 EEW_{it} + \beta_2 ECD_{it} + \mu_{it} \dots\dots\dots (x)$$

Where:

EPS= Earnings per Share

EH= Environmental Accounting on Employees’ Welfare

CD= Environmental Accounting on Community Development

μ_{it} = error term.

A-priori Expectation

It was expected that there would be a positive relationship between environmental accounting and profitability of pharmaceutical companies. It was also expected that there would be a positive relationship between environmental accounting and shareholders’ wealth maximisation of manufacturing companies.

4.0 RESULT OF DATA ANALYSIS

Table 4.1: Hausman Test Result for Model

Correlated Random Effects		
Test cross-section random effects		
	Model 1	
Test Summary	Chi-Sq. Stat	p-value
Cross-section random	2.210296	0.3312

Source: Author’s computation, 2017

Table 4.1 shows the result of the Hausman test conducted in order to determine the type of estimator to be used which could either be Fixed Effect Model (FEM) or Random Effect Model (REM) estimator. The p-value of the model was not statistically significant, therefore it was accepted that random effect was more appropriate. Hence, findings of the random effect model superseded in the discussion of findings.

Table 4.2: Regression Result for Environmental Accounting

Dependent variable: ENVA							
Variable	Coefficient	Prob	R-squared	Adj R-sq.	F-stat	Prob(F-stat)	Durbin Watson
SIZE	0.065315	0.0461	0.5592	0.4761	2.8998		1.8946
AGE	0.454287	0.0150					
PAT	0.561759	0.0108					
LEV	0.1427	0.0160					
C	1.0886	0.5492					

Source: Author’s Computation, 2017

* Significant at 5% level

From Table 4.2, the variable size, age, profit after tax and leverage were found to be significant at 5% level of significance. The coefficient of size of pharmaceutical companies which was 0.06 indicates that every 1% increase in size will improve the reporting of environmental accounting by 6%. Also, the coefficient of the age shows there was a positive relationship between environmental accounting and age while the coefficient of profit after tax was 0.5617. This indicates that for every 1% increase in age, profit after tax will lead to an improvement in reporting of environmental accounting in pharmaceutical companies under study. The leverage shows a co-efficient of 0.1427 which indicates that for every 1% rise in leverage, there will be an improved reporting of environmental accounting by 14% in pharmaceutical companies under study.

The coefficient of determination (R^2) of 0.55, indicating that 55% changes in dependent variable (environmental accounting) can be explained by the independent variables (size, age, profit after tax, leverage), while the remaining 45% is explained by other variables not captured in the model but captured by the error term. The Durbin Watson was close to 2 (1.89) which signifies the absence of autocorrelation among the successive values of the variables in the model. The f-statistics was 2.89 which was significant at 1%. This indicates that the regression model is a good fit.

Table 4.3: Result of Hausman Test for model with ROE

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixroe	(B) randomroe		
logCD	.095821	.104223	-.008402	.0221513
logEH	.0431872	.0401658	.0030214	.026158

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(2) &= (b-B)' [(V_b-V_B)^{-1}] (b-B) \\ &= 0.18 \\ \text{Prob}>\text{chi2} &= 0.9137 \end{aligned}$$

Source: Author’s Computation, (2017)

To examine the most consistent model between the fixed effect and random effect, the Hausman test was conducted and the result was presented in Table 4.3. The null hypothesis of the test was that random effect is more appropriate than the fixed effect. The null hypothesis was accepted if the probability value of the test statistics is greater than the conventional levels of significance (1%, 5% and 10%). Otherwise, the null hypothesis was not accepted.

The result displays that the chi-square statistics of the test was 0.18 and the probability value was 0.9137. Since the probability value was greater than 5% level of significance, it was accepted that random effect is more appropriate. Hence, findings of the random effect model superseded in the discussion of findings.

Table 4.4: Result of Random Effect Regression for ROE

. xtreg ROE LogComdev logEmplWfar, re					
Random-effects GLS regression				Number of obs =	63
Group variable: Company				Number of groups =	11
R-sq: within = 0.4600				Obs per group: min =	1
between = 0.4564				avg =	3.2
overall = 0.3680				max =	6
				Wald chi2(2) =	12.81
corr(u_i, X) = 0 (assumed)				Prob > chi2 =	0.0017
ROE	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]
LogCD	.104223	.0369512	2.82	0.005	.0318003 .1766457
logEH	.403771	.0486126	2.41	0.002	.055113 .1354447
_cons	-1.915961	.8486301	-2.26	0.024	-3.579246 -2.526769
sigma_u .2181385					
sigma_e .16549832					
rho .63467792 (fraction				of variance due to u_i)	

Source: Author’s Computation, (2017)

Using the return on equity (ROE) as the dependent variable and explanatory variables log of community development and expenditure on employees’ welfare (logCD and logEH), the result of the random effect model is presented in Table 4.4. It shows that both log of community development (logCD) and expenditure on employees’ welfare (logEH) were positively related to return on equity (ROE). This implies that as both variables increase, ROE increases and vice versa. The random effect model demonstrates that logCD and logEH are statistically significant. This is shown by the coefficient of logCD (0.1042) with p-value (0.005) and the coefficient of logEH (.403771) with p-Value (0.002). Also, the standard error (0.03695) of the coefficient (0.1042) of logCD was less than half of the coefficient while the standard error (.0486126) of the coefficient (.403771) of logEH was less than half of the coefficient. Thus, variable logCD and logEH were significant determinants of ROE. By magnitude, one percent increase in expenditure on community development (CD) and expenditure on employee’s welfare averagely led to increase in the return on equity by 0.1042 and .403771 in Nigeria.

The intra-class correlation (rho) shows that 63.47% of the fraction of variation in performance of firms was due to difference across the firms, while the Wald-statistics (12.81) with p-value (0.0017) and the between R² (45.64) indicate that the model has a good fit.

Table 4.5: Result of Hausman Test for EPS

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixroa	(B) randomroa		
logCD	.0785023	.0918603	-.013358	.032574
logEH	.0261543	.0235593	.002595	.0360555

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(2) &= (b-B)' [(V_b-V_B)^{-1}] (b-B) \\ &= 0.30 \\ \text{Prob}>\text{chi2} &= 0.8586 \end{aligned}$$

Source: Author’s Computation (2017)

To choose between the random and fixed effect model, Hausman test was conducted for models in which EPS was the dependent variable. The result of the test was presented in Table 4.5. The chi-square statistics 0.30 with probability value 0.8586 indicates the acceptance of the null hypothesis that random effect was more appropriate than the fixed effect model. Therefore, the result of the random effect regression presented in Table 4.6 was adopted for inferences in this study.

Table 4.6: Result of Random Effect Regression for EPS

. xtreg EPS LogComdev logEmplWfar, re						
Random-effects GLS regression				Number of obs =	63	
Group variable: Company				Number of groups =	11	
R-sq: within = 0.2802				Obs per group: min =	1	
between = 0.4765				avg =	3.2	
overall = 0.3328				max =	6	
				Wald chi2(2) =	7.72	
corr(u_i, X) = 0 (assumed)				Prob > chi2 =	0.0210	
EPS	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
LogCD	0.0918603	0.0373471	2.46	0.014	0.0186614	.1650592
logEH	0.0935593	0.0412279	2.45	0.006	0.0188897	.1260083
_cons	-1.528452	0.9653376	-1.58	0.113	-3.420479	.363575
sigma_u .09254745						
sigma_e .19037082						
rho .19115778 (fraction				of variance due to u_i)		

Source: Author’s Computation, (2017)

The random effect regression for the impact of environmental accounting on shareholders’ wealth maximisation was estimated and the result was presented in Table 4.6. Again, the measure of firms’ performance used as dependent variable was Earnings per Share (EPS) while log of community development (logCD) and log of expenditure on employee welfare (logEH) were the independent variables. Similar to the result of the previous models, the relationship between the dependent variable and the independent variables was still positive. However, the result shows that the coefficient of logCD was 0.0919 with 0.0373 and 0.014 standard error and p-value respectively. Since half of the coefficient is greater than the standard error and the P-value was less than 5% level of significance, logCD was statistically significant. Also, the result shows that the coefficient of logEH was 0.0935593 with 0.0412279 and 0.006 as standard error and p-value, respectively. Since half of the coefficient was greater than the standard error and the p-value was less than 5% level of significance, logEH is statistically significant.

Therefore, expenditure on community development and employees’ welfare were significant determinants of EPS of firms in Nigeria. A percent increase in the expenditure on community development will result to 0.0919 increase in the rate of shareholders’ welfare. So, firms in Nigeria can increase their shareholders’ wealth by improving their commitment to community development services. This result was authenticated by the Wald-statistics 7.72 with P-value 0.0210 and between R² 0.4765 which shows that the model had a good fit, and about 47.65% of the changes in EPS resulted from changes in community development services and expenditure on health of employees.

Discussion of Findings

Panel data regression analysis was employed to investigate this study which examined the effect of environmental accounting on the performance of pharmaceutical companies in Nigeria. The results of the study revealed that firm specific characteristics (such as size, age, profit after tax and leverage) were found to have significant influence on environmental accounting reports in manufacturing companies in Nigeria. Therefore, the null hypotheses which stated that there is no specific factors that determine environmental accounting in pharmaceutical companies in Nigeria should be rejected. The findings of the study also revealed that community development and employees' welfare were statistically significant on profitability pharmaceutical companies in Nigeria. Therefore the null hypothesis which stated that environmental accounting does not have significant impact on profitability of pharmaceutical companies in Nigeria should not be accepted.

The study also revealed that environmental accounting has a positive significant relationship with shareholders' wealth maximization of pharmaceutical companies in Nigeria which was consistent with the study of Osemene, Kolawole and Oyelakun (2016). Therefore, the null hypothesis which stated that environmental accounting does not significantly affect shareholders' wealth maximization of pharmaceutical companies in Nigeria should not be accepted. This finding is consistent with the works of Beredugo and Mefor (2012); Adediran and Alade (2013) and Osemene, Kolawole and Oyelakun (2016). The outcome of this study was consistent with the stakeholder's theory which assumes that the firm's success is dependent upon the successful management of all the relationships that a firm has with its stakeholders. Hence, a firm must ensure it takes cognizance of her environment in order to achieve improved performance.

Conclusion and Recommendation

Based on the findings of this study, it was concluded that there was a positive relationship between the performance of pharmaceutical companies and community development, environmental cost reporting and expenses incurred on employees' welfare. The study, therefore, recommended that pharmaceutical companies should ensure that they spend more on the welfare of their employees so as to encourage them in putting their best into the company which will in turn lead to an enhanced performance. In terms of shareholder's wealth maximization, the management of pharmaceutical companies should intensify their involvement in environmental accounting so as to improve their profitability.

References

- Agbiogwu, A. A., Ihendinihu, J. U. & Okafor, M. C. (2016). Impact of Environmental and Social Costs on Performance of Nigerian Manufacturing Companies. *International Journal of Economics and Finance*, 8(9), 173-180.
- Akinsulire, O. (2011). *Financial Management*. 7th Edition. Lagos: Ceemol Nigeria Limited.
- Al-Nimer, M. (2015). Perceptions of Environmental Accounting in the Jordanian Pharmaceutical Industries (Applications and Disclosure). *International Journal of Business and Management*, 10(2), 73-80.

- Baba, M. C. (2012). Advantages of Implementing Environmental Accounting Within An Economic Entity. *Anale.SeriaȘtiințeEconomice,Timișoara*, 18(2), 15–24.
- Bevedugo, S. B., &Mefor, I. P. (2012). The Impact of Environmental Accounting and Reporting on Sustainable Development in Nigeria. *Research Journal of Finance and Accounting*, 3(7), 55-63.
- Boyd, J. W. (1998). The Benefits of Improved Environmental Accounting: An Economic Framework to Identify Priorities. Resources for the Future, Discussion Paper 98-49 [September] 1998, Washington, DC.Retrieved from <http://www.rff.org/Boyd.cfm>.
- Deegan, C. & Rankin, M. (1996). Do Australian Companies Report Environmental News objectively? An Analysis of environmental Disclosures by Firms Prosecuted by the Environmental Protection Authority.*Accounting, Auditing and Accountability Journal*, 9(2), 50 -57.
- Dibia, N. O. &Onwuchekwa, J. C. (2015). Determinants of Environmental Disclosures in Nigeria: A Case Study of Oil and Gas Companies. *International Journal of Finance and Accounting*.4(3), 145-152.
- Emeakponuzo, D. E. &Udih, M. (2015). Environmental Accounting Practices by Corporate Firms in Emerging Economies: Empirical Evidence from Nigeria. *Advances in Research*, 3(2), 209-220.
- Enahoro, J.A (2009). Design and Bases of Environmental Accounting in Oil & Gas and Manufacturing Sectors in Nigeria; Covenant University, Ota, Nigeria; Ph.D. Thesis in Accounting.
- Friedman, M. (1970), *The social responsibility of business is to increase its profits"*, *NY Times Magazine*, New York.
- Laser, R., Hedges, L. &Fagerty, T. (2006).*Practical Financial Management*. Canada: Nelson.
- Magara, R., Aming'a, N. N. &Momanyi, E. (2015).Effect of Environmental Accounting on Company Financial Performance in Kisii County.*British Journal of Economics, Management & Trade*,10(1), 1-11.
- Makori, D., &Jagongo, A., (2013). Environmental Accounting and Firm Profitability: An Empirical Analysis of Selected Firms Listed in Bombay Stock Exchange, India. *International Journal of Humanities and Social Science*, 3(18), 248-256.
- Mohamed, A. (2002). Theoretical Framework for Environmental Accounting-Application on the Egyptian Petroleum Sector.The Egyptian Forum on Environment and Sustainable Development. Cairo. Egypt. Available at: www.erf.org.eg/CMS/.../1185352882_S-P_Mohamed_Raouf.pdf. Retrieved on 03/09/2014

- Osemene, O. F. (2012). Corporate Social Responsibility Practices in Mobile Telecommunications industry in Nigeria. *European Journal of Business and Management*, 4(8), 149-159.
- Osemene, O. F., Kolawole, K. D. & Oyelakun, O. (2016). Effects of Environmental Accounting Practices and Sustainable Development on the Performance of Nigerian Listed Manufacturing Companies. *Journal of Sustainable Development in Africa*, 18(2), 127-143.
- Piercy, F. N. (2008). *Market-Led Strategic Change: Transforming the Process of Going to Market*. Northeastern : A Butterworth-Heinemann.
- Rahahleh, M. (2011). Means for Implementation of Environmental Accounting: Jordanian Perspectives. *International Journal of Business and Management*, 6(3), 124-135.
- Smart, J. J. C. (1973). Utilitarianism: For and Against. Available on 28/08/2015. Retrieved from https://books.google.com.ng/books/about/Utilitarianism.html?id=J0w3ER2fWv4C&redir_esc=y.
- Trotman, K. (1999). Social responsibility disclosure by Australian companies. *The Chartered Accountant in Australia*, 2(3), 24 -28.
- Weng, H., Chen, J. & Chen (2015). Effects of Green Innovation on Environmental and Corporate Performance: A Stakeholder Perspective. *Sustainability*, 7(1), 4997-5026

Contact Information

Mubaraq SANNI (Ph. D)¹ & Kayode David KOLAWOLE²

¹Department of Accounting & Finance, Kwara State University, Malete, Nigeria

²Department of Accounting & Finance, Kwara State University, Malete, Nigeria