

IMPACT OF ENVIRONMENTAL SUSTAINABILITY REPORTING ON NET PROFIT MARGIN OF SELECTED QUOTED GAS INDUSTRIES IN NIGERIA

Adekanmbi, John Ayodele (Ph.D)

Department of Accounting, Bamidele Olumilua University of Education, Science and Technology, Ikere – Ekiti, Ekiti State, Nigeria
Email: adekanmbi.john@bouesti.edu.ng

Abstract

The study examined the impact of environmental sustainability reporting on net profit margin of quoted and selected gas industries in Nigeria. Specifically, the study examined the sustainability environmental costs (community development cost, waste management cost, expenses for employee health and safety and cost for research and development) on net profit margin of oil and gas and manufacturing firms in Nigeria. It was a quantitative study and secondary data sourced from the published quoted financial reports of 10 sampled firms with life span of 20 years. Data were analysed using descriptive statistics, Pearson correlation, unit root test, panel regression with regards to pooled Ordinary Least Square (OLS) estimation, fixed effect estimation, two-ways fixed effect estimation, random effect estimation and other position estimation tests which include restricted F-test, Hausman test, Wald test of heterogeneity, Pearson test of cross-sectional dependence and Wooldridge test. It was discovered that community development cost has a positive insignificant effect on net profit margin. The finding further revealed that environmental cost has a statistical positive relationship with the performance of firms in the gas industries in Nigeria. The study recommended that Environmental cost should be seen as an asset that will generate more income for the organisation. This will not just improve the development of the community, but it will also enhance the overall performance of the organisation.

Keywords: net profit margin, sustainability, environmental costs/reporting, gas industries

1.0 Introduction

Internal and external stakeholders are becoming increasingly concerned about a company's financial and physical effects on the environment. As a result, environmental costs and reporting have become a significant tool for organisations to respond to stakeholder expectations regarding the environment, according to Schaltegger and Burrit (2000); Staniskis and Stasiskiene (2006), and International Federation of Accountants Committee IFAC (2005). Furthermore, it has been discovered that environmental costs are rising in a variety of industries in many nations. Organisations can find potential savings when addressing environmental expenses by focusing on efficient resource usage and non-product output expenses in environmental management accounting (IFAC, 2005).

Informing stockholders, stakeholder groups, and prospective buyers about resource allocation, corporate transactions, and financial results monitoring is a keystone concept in corporate governance as defined by Clarkson, Richardson, and Vasvari (2018), and disclosure of information allow it to be successful. High-quality reporting has the advantage of decreasing capital costs for investors and lenders who must analyze risks and rewards. Additionally, comprehensive financial reporting quality provides an understanding of the degree to which companies follow legal and ethical guidelines.

As worldwide ecological awareness and the battle for sustainable economic development grows, companies' focus is being turned to environmental sensitivity. Due to the need for sustainability, many norms of human interaction with the environment have developed, calling

forth numerous organizations throughout the globe to address environmental challenges and promote sustainable practices. By implementing these principles, companies will have the ability to have an impact on social and environmental change. To a limited extent, regulatory agencies, social movements, and green consumer advocacy organizations are rekindling corporate attention towards the main strategic significance of environmentalism in business survival at various national levels. Despite having proper government regulations, a lack of structured advocacy, and limited public awareness, views in developing nations tend to differ because of insufficient regulation, insufficient advocacy, and limited public awareness. This causes these companies in countries like Nigeria to behave as though they have the capability to meet their objectives while completely disregarding ecological obligations.

2.0 Conceptual Review

2.1.1 Financial Accounting for the Environment

Aim for accurate disclosure in the end-of-period financial statements. That is, incorporate an environmental factor into the published operational sheets. Means the establishment and implementation of environmentally friendly accounting systems and procedures for the management of environmental and economic performance. While environmental management accounting may include reporting and auditing in certain organisations, it often entails life-cycle costing, benefit evaluation, and strategy planning for environmental management.

2.1.2 Environmental Cost Accounting

Consider environmental expenses in order to arrive at a complete cost accounting. i.e. the process of identifying, evaluating, and allocating conventional, environmental, and social costs to processes, goods, activities, and budgets. According to the polluter pays principle (PPP), each polluter is responsible for the costs associated with cleaning up after his activity. If the polluter does not incur these costs, they will be borne by another party (a third party) - external environmental costs.

The term environmental cost has at least two major dimensions:

- (i) It may relate exclusively to costs that have a direct effect on "private costs";
- (ii) It may also entail unaccountable costs to individuals, society, and the environment, referred to as "social costs."

Cost associated with the environment

(i) Research and Development Costs

The cost of research and development is directly related to the research and development of a business's goods and services, as well as any intellectual property developed throughout the process. Generally, a business incurs R and D expenditures in the process of discovering and developing new goods or services. Additionally, it refers to the costs related in doing research into new procedures or techniques and turning the results into new designs, products, or processes. Businesses must expense all research and development expenditures as they are incurred. If costs are made that result in a concrete future benefit, they should be capitalised and depreciated over their useful lives, or aimed at or amortised. Research is a deliberate search or study aimed at acquiring new knowledge in the belief that it would aid in the development of new products or processes or in significantly improving current ones. Onajite, Ogunleye, and Enijuni, (2023) described research as a scientific method or systematic way of finding solution to any given problem.

Development: Regardless of whether the product or process is intended for sale or use, development is the process of transforming research results or other information into a plan or design for a new process or product, or a major improvement to an existing product or process.

(ii) Penalties and Fines

These are the costs incurred by an organisation as a result of a breach of a rule or regulation governing a particular environmental concern. Penalty and related expenditures incurred as an expense are anticipated to be fully disclosed in the financial statements of the company. Penalties and fines have a negative correlation with a company's success, since they lower earnings and return on assets.

(iii) Cost of Pollution Abatement

Pollution abatement is a cost that many firms bear in order to remove and/or reduce an undesired product that they developed. Generally, abatement expenses are spent when businesses are compelled to minimise potential nuisances or negative by-products generated during manufacturing. Costs associated with abatement include those associated with pollution reduction in paper mills and noise reduction in industrial operations.

IFAC (2005) justified the material costs of product outputs as environmental in order to account for the reality that the material inputs turned into physical goods may have environmental consequences after they leave the factory. Additionally, natural resource extraction disrupts the eco-system surrounding the extraction site. Additionally, this type of pricing data enables managers to assess the environmental effect of their goods' ingredients. As a result, hazardous ingredients in products can be substituted with less hazardous and cost-effective alternatives. Non-product outputs may be considered quality expenses, but they also have an environmental component, since they assist firms in managing the environmental implications of their waste and emissions. Additionally, IFAC notes that a few environmental expenses may fall into many cost categories. The cost category to be used for the cost is determined by the amount of detail in the data, the planned use of the data, and corporate preferences. It should be noted that environmental expenses should not be double-counted or categorised.

2.2 Theoretical Framework

Theory of Political Economy (PET)

William Stanley proposed the possibility of political financial aspects in (1871). The hypothesis explicitly recognizes the presence of force battles inside society and the numerous contentions that happen between different groups inside society. The expression "political economy" alludes to the social, political, and financial setting in which human existence happens (Gray et al., 2006). Bookkeeping divulgences are seen as friendly, political, and financial records from a political financial matters point of view (Guthrie and Parker, 2016). They are utilized to fabricate, sustain, and legitimize monetary and political designs, foundations, and philosophical topics that advance the partnership's private advantages. Exposures can pass on friendly, political, and monetary ramifications to a different scope of report beneficiaries. Political financial aspects and authenticity speculations have all the earmarks of being more appropriate for breaking down current practices than for filling in as standardizing establishments for inferring sufficient responsibility associations.

2.3 Empirical Review

Researchers Lubomir and Dietrich (2018) analyzed data from the transition economy to find out whether better environmental performance affects revenue, expenses, or both. For the research, I used unbalanced panel data for 1996 to 1998, which consisted of data for Czech businesses. The results revealed a strong relationship between better environmental performance and profitability, where cost savings are more significant than revenue decreases. Malaysian environmental disclosure laws were investigated by Norhasimah, Norhabibi, Nor, Sheh, and Inaliah (2018) for their possible impact on business financial performance. They examined the 100 largest businesses in Malaysia to see whether environmental disclosure

practices exist, and if these practices are linked to financial success. Investigations show that when environmental disclosure practices are present, financial performance does not suffer. The paper, "Company characteristics and environmental disclosure," written by Hartikayanti, Trisyardi, and Saptono (2016), examined the impact of business factors on environmental disclosure for seventeen companies, all of which were selected using a purposive sample approach. GRI's G4 Corporate Social Responsibility Rating System was used for this assessment. The research used multiple linear regression to get the results. The study found that the kind of industry has a considerable impact on environmental disclosure.

Makori and Jagongo (2013) examined environmental accounting and firm profitability. They established whether there was any significant association between environmental accounting and the profitability of the selected firms. The secondary data for the study were obtained from the annual reports and accounts of the fourteen companies quoted on the Bombay Stock Exchange in India and the analysis was carried out via multiple regressions. The study found that there was a significant negative association between environmental accounting and return on capital employed, whereas a significant and positive association was established for earnings per share, the net profit margin and a dividend per share.

To examine the correlation between CED and company success for a sample of companies on India's Bombay Stock Exchange, researchers conducted a study by Malarvizhi and Ranjanni (2016). (BSE). In order to identify trends and discover relationships in business climate and operational disclosure, they used content analysis. The data used in this research work was obtained from a survey. This research used a linear regression to analyze the data, which included the dependent variable EDI and the independent variables ROCE, ROA, NPM, and EPS. A study on environmental disclosure did not discover any relationship between the amount of information provided and a company's financial success. They recommended that businesses learn about the value of increased environmental performance and have long-term survival as criterion for doing business. Since government plays a key role in climate policy, education must be integrated at the societal level on moral environmental disclosure.

3.0 METHODOLOGY

This research looked at the Nigerian economy's oil and gas and manufacturing sectors. It focused its attention on ten (10) different industry sectors, such as upstream oil and gas, downstream oil and gas, and indigenous oil and gas. In this case, both the oil and gas and industrial companies were found to have a detrimental effect on the environment via emissions and industrial effluent. Additionally, due of the environmental and social impact their businesses have on the environment; they adopt more environmentally friendly practices. As a result, this study used secondary data collected from the public firms listed on Nigerian Exchange Group

The model utilized by Nwaiwu and Oluka (2018) on environmental cost disclosure and financial performance of oil and gas in Nigeria, was adopted for this study. This is given below:

$$EPS = f(WMC, PAC, LAR) \dots \dots \dots (1)$$

Where:

- EPS = Earnings per Share
- WMC = Waste Management Cost
- PAC = Pollution Abatement
- LAR = Law and Regulation

However, both dependent and independent variables in the above model was re-modified in order to capture the proxies used for both outcome and predictor variables of this study. The model is modified by specifying the profitability of the of the sampled firms measured in terms of Net Profit Margin (NPM) as a function of environmental cost that will be measured with

community development cost, waste management cost, expenses for employee health and safety and cost for research and development. The modification is predicted on the fact that the financial performance of firms could be best captured when all the major profitability proxies are used. In the same vein, the models are controlled by total assets (firm size) and leverage ratio. The controlled variables were introduced because they are germane to the profitability of companies.

Model 1: this shows the relationship between Net Profit Margin and proxies for environmental cost

$$NPM = f(CDC, WMC, EHS, CRD, TOA, LEV) \dots \dots \dots (2)$$

Where:

- NPM = Net Profit Margin
- CDC = Community Development Cost
- WMC = Waste Management Cost
- EHS = Expenses on Employees' Health and Safety
- CRD = Cost of Research and Development
- TOA = Total Assets
- LER = Leverage Ratio

The econometric equations are present below:

$$NPM_{it} = \beta_0 + \beta_1 CDC_{it} + \beta_2 WMC_{it} + \beta_3 EHS_{it} + \beta_4 CRD_{it} + \beta_5 TOA_{it} + \beta_6 LER_{it} + \mu_1 \dots \dots (3)$$

Where:

- $\beta_0 - \beta_3$ = the slope parameter
- i = firms sampled in this study
- t = the period covered
- $\epsilon_1 \dots \dots \epsilon_4$ = error terms for each of the models specified

Secondary data sources used included data from the Nigerian Exchange Group (NEG). These companies, which were all from the NEG, included financial statements and annual reports from oil and gas businesses, such as OANDO, CONOIL, TOTAL and FORTEL as well as manufacturing companies such as PRESCO, GUINNESS, MAY, and BAK, PZ, II PLC and OKOMU. The data used in this analysis spans the years 2000 to 2019, covering twenty (20) years.

4.0 Result and Discussion of Findings

Model One: This shows the relationship between environmental costs (community development cost, waste management cost, expenses for employee health and safety and cost for research and development) and net profit margin and the control variables.

Table 1: Pooled OLS Estimation Result

| Variables | Coefficient | Std Error | T-Test | Probability |
|-----------|-------------|-----------|--------|-------------|
| C | 227.8532 | 34.42411 | 6.62 | 0.000 |
| LCDC | 7.750373 | 3.728008 | 2.08 | 0.039 |
| LWMC | -2.063361 | 4.405635 | -0.47 | 0.640 |
| LEHS | -8.458905 | 4.408812 | -1.92 | 0.057 |
| LCRD | -9.998574 | 4.199351 | -2.38 | 0.018 |
| LTOA | -1.54319 | 0.677784 | -2.28 | 0.024 |
| LEV | -2.354222 | 2.093611 | -1.12 | 0.262 |

R-square=0.2770, Adjusted R-square=0.2545, F-statistics=12.33, Prob (F-stat) =0.0000

Source: Data Analysis (2021)

Pooled estimation result presented in Table 1 revealed that when heterogeneity effect across firms sampled in the study is not given consideration, LWMC, LEHS, and LEV exert

insignificant and negative effect on net profit margin, with coefficient estimate of -2.063361 ($p=0.640 > 0.05$), -8.458905 ($0.057 > 0.05$) and -2.354222 ($p=0.262 > 0.05$). LCDC on the other hand exerts positive and significant effect on net profit margin, with coefficient estimate of 7.750373 ($p=0.039 < 0.05$). Result also revealed that LCRD and LTOA exerts significant negative effect on net profit margin to the tune of -9.998574 ($p=0.018 < 0.05$) and -1.54319 ($p=0.024 > 0.05$) respectively. The adjusted R-square of 0.2770 revealed that about 28% of the systematic variation in net profit margin can be explained by all the predictor variables while the remaining 72% could be accounted for by other variables not covered by this study. The F-statistics of 12.33 along the probability value of 0.000 revealed that the model is fit.

Table 2: Fixed Effects Estimates (Cross-sectional and Period specific)

| Cross-sectional specific effect | | | Time-specific effect | | |
|---|--------------|-------|---|--------------|--------|
| Variables | Coefficients | Prob | Variables | Coefficients | Prob |
| C | -19.13689 | 0.828 | C | 208.1219 | 0.0000 |
| LCDC | 1.545779 | 0.734 | LCDC | 9.863787 | 0.010 |
| LWMC | 1.180032 | 0.783 | LWMC | -3.011421 | 0.506 |
| LEHS | 2.003063 | 0.661 | LEHS | -9.910429 | 0.039 |
| LCRD | 0.4653491 | 0.918 | LCRD | -10.38861 | 0.021 |
| LTOA | -1.575203 | 0.035 | LTOA | 0.1815424 | 0.861 |
| LEV | -1.59369 | 0.436 | LEV | -5.086488 | 0.024 |
| Effects | | | Effects | | |
| PRESCO | -13.5084 | 0.05 | 2001 | 15.02094 | 0.023 |
| GUINNESS | -5.505618 | 0.278 | 2002 | 17.62339 | 0.009 |
| PZ | -20.17481 | 0.000 | 2003 | 9.29704 | 0.162 |
| MAY & BAKER | -24.20809 | 0.000 | 2004 | 0.7915075 | 0.909 |
| II PLC | -28.51504 | 0.000 | 2005 | 2.076851 | 0.766 |
| FORTE | -34.6104 | 0.000 | 2006 | 3.134122 | 0.654 |
| OANDO | -39.57671 | 0.000 | 2007 | -2.152233 | 0.763 |
| CONOIL | -28.22737 | 0.001 | 2008 | -2.233543 | 0.757 |
| TOTAL | -30.56115 | 0.000 | 2009 | -4.399649 | 0.549 |
| | | | 2010 | 0.3673446 | 0.961 |
| | | | 2011 | -2.493783 | 0.737 |
| | | | 2012 | -2.296217 | 0.761 |
| | | | 2013 | 0.3686265 | 0.961 |
| | | | 2014 | 3.401908 | 0.658 |
| | | | 2015 | -4.778059 | 0.543 |
| | | | 2016 | -2.38485 | 0.759 |
| | | | 2017 | -0.7384652 | 0.923 |
| | | | 2018 | 1.693049 | 0.826 |
| | | | 2019 | -3.902406 | 0.615 |
| Adjusted R-square= 0.3805 F-statistics=9.15 Prob(F-stat)=0.0000 | | | Adjusted R-square= 0.2630 F-statistics=3.84 Prob(F-stat)=0.0000 | | |

Source: Data Analysis (2022)

Table 2 presented the fixed effect estimation results and this included the cross-sectional and time effect. The results indicated that when the diversity across the firms is considered, LTOA and LEV have a negative effect on net profit margin of the sampled firms in the oil and gas and

manufacturing sector in Nigeria. However, the negative effect was only significant for LTOA to the tune of -1.575203 ($p=0.035 < 0.05$) as against the insignificant negative effect of LEV with coefficient and probability value of -1.59369 and 0.436 respectively. Also, LCDC, LWMC, LEHS and LCRD have positive but insignificant effect on net profit margin to the tune of 1.545779 ($p=0.734 > 0.05$) for LCDC, 1.180032 ($p=0.783 > 0.05$) for LWMC, 2.003063 ($p=0.661 > 0.05$) for LEHS and 0.4653491 ($p=0.918 > 0.05$) for LCRD. The adjusted R-square of 0.3805 revealed that about 38% of the systematic variation in net profit margin can be explained by all the predictor variables while the remaining 62% could be accounted for by other variables not covered in this study. The F-statistics of 9.15 along the probability value of 0.000 revealed that the model is fit.

Table 2 also showed that when the time covered by this study are put into consideration, LWMC, LEHS, LCRD and LEV have a negative effect on net profit margin of the sampled firms in the oil and gas and manufacturing sector in Nigeria. However, the negative effect was only insignificant for LWMC with coefficient and probability value of -3.011421 and 0.506 respectively as against the significant negative effect of LEHS, LCRD and LEV to the tune of -9.910429 ($p=0.039 < 0.05$) for LWMC, -10.38861 ($p=0.021 < 0.05$) for LCRD and -5.086488 ($p=0.024 < 0.05$) for LEV. Also, LCDC and LTOA were found to have positive effect on net profit margin, though the positive effect was only significant for LCDC to the tune of 9.863787 ($p=0.010 < 0.05$) as against the insignificant positive effect of LTOA with coefficient and probability values of 0.1815424 and 0.861 respectively. The adjusted R-square of 0.2630 revealed that about 26% of the systematic variation in net profit margin can be jointly explained by all the explanatory variables while the remaining 74% could be accounted for by other variables not covered by this study. The F-statistics of 3.84 along the probability value of 0.0000 revealed that the model is fit.

Divergence from the intercept term (52.7804) corresponding to the reference firms (OKOMU) which was excluded from the model because of multi-collinearity stood at -13.5084 for PRESCO, -5.505618 for GUINNESS, -20.17481 for PZ, -24.20809 for MAY and BAKER, -28.51504 for II Plc, -34.6104 for FORTE, -39.57671 for OANDO, -28.22737 for CONOIL and -30.56115 for TOTAL. Also, deviation from the intercept term (41.25532) of the reference period stood at 15.02094, 17.62339, 9.29704, 0.7915075, 2.076851, 3.134122, -2.152233, -2.233543, -4.399649, 0.3673446, -2.493783, -2.296217, 0.3686265, 3.401908, -4.778059, -2.38485, -0.7384652, 1.693049 and -3.902406 for 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018 and 2019 respectively.

Table 3: Random Effect Estimation Result

| Variables | Coefficient | Std Error | T-Test | Probability |
|-----------|-------------|-----------|--------|-------------|
| C | 142.4883 | 61.29174 | 2.72 | 0.020 |
| LCDC | 1.355925 | 4.290493 | 0.32 | 0.752 |
| LWMC | 0.8212421 | 4.249536 | 0.19 | 0.847 |
| LEHS | 2.559607 | 4.398358 | 0.58 | 0.561 |
| LCRD | 4.885485 | 4.221047 | 1.16 | 0.247 |
| LTOA | -1.628982 | 0.7252772 | -2.25 | 0.025 |
| LEV | -1.890817 | 0.344879 | -2.32 | 0.035 |

R-square=0.3891, Wald Chi=10.64, Prob (F-stat) =0.021

Source: Data Analysis (2022)

Table 3 revealed that when the error term absorbed the heterogeneity effect across firms and over time, that LCDC LWMC, LEHS and LCRD have a positive and insignificant effect on net profit margin with their respective coefficient of 1.355925($p=0.752>0.05$),

0.8212421($p=0.847>0.05$), 2.559607($p=0.561>0.05$) and 4.885485($p=0.247>0.05$). also, it was revealed LTOA and LEV have a negative and significant effect on net profit margin to the tune of -1.628982($p=0.025<0.05$) and -1.890817($p=0.035<0.05$) respectively. The adjusted R-square of 0.3891 revealed that about 39% of the systematic variation in net profit margin can be jointly explained by all the explanatory variables while the remaining 61% could be accounted for by other variables not covered by this study. The Wald Chi of 10.64 along the probability value of 0.021 revealed that the model is fit.

Table 4: Restricted F Test of Heterogeneity (Cross-Sectional and Time Specific)

| | F-statistics | Probability |
|-----------------|--------------|-------------|
| Cross-sectional | 5.36 | 0.000 |
| Time-specific | 1.12 | 0.3385 |

Source: Data Analysis (2022)

F-statistics reported in Table 4 stood at 5.36 and 1.12 with probability values of 0.000 and 0.3385 for cross-sectional and period-specific effects respectively. This showed that there is enough evidence to accept the null hypothesis that all differential intercept corresponding to each cross-sectional specific firm are equal to zero, but otherwise for the period-specific intercepts. This implies that there is a significant cross-sectional heterogeneity effect amidst the sampled oil and gas, and manufacturing firms.

Table 5: Hausman Test for forth Model

| | Chi-square stat | Probability |
|--|-----------------|-------------|
| Difference in coefficient not systematic | 11.26 | 0.0806 |

Source: Data Analysis (2022)

Table 5 reported Chi-square statistic of 11.26 and a probability value of 0.0806. The result revealed that there is no enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimation and random effect estimation is not significant. Hence, the difference in the coefficient is not systematic. Therefore, the most consistent and efficient estimation is given by the random effect estimation as presented in Table 30. The results showed that LCDC LWMC, LEHS and LCRD have a positive and insignificant effect on net profit margin with their respective coefficient of 1.355925($p=0.752>0.05$), 0.8212421($p=0.847>0.05$), 2.559607($p=0.561>0.05$) and 4.885485($p=0.247>0.05$).

Table 6: Pearson Test of Cross-sectional Dependence

| Hull Hypothesis | Chi-square stat | Probability |
|-------------------------------|-----------------|-------------|
| No cross-sectional dependence | 1.956 | 0.0905 |

Source: Data Analysis (2022)

Table 6 revealed that there is no enough evidence to reject that there is no cross-sectional dependence across the firms sampled for this study. Hence, it can be established that there is no cross-sectional dependence for the estimated panel model.

Table 7: Modified Wald Test for Groupwise Heteroskedasticity

| Hull Hypothesis | Chi-square stat | Probability |
|-------------------------------|-----------------|-------------|
| Static panel homoscedasticity | 0.75 | 0.5429 |

Source: Data Analysis (2022)

Table 7 revealed that there is no enough evidence to rejects that assumptions of an equal variance of residual terms across the firms sampled for this study, reflecting that the variance around the regression line is the same for the values of the predictor.

Table 8: Wooldridge Test of Panel Autocorrelation

| Hull Hypothesis | Chi-square stat | Probability |
|-------------------------------|-----------------|-------------|
| No AR(1)panel autocorrelation | 0.764 | 0.6001 |

Source: Data Analysis (2022)

Table 8 revealed that there is no enough evidence to reject that the assumption that there is no serial correlation in the panel model across the firms sampled for this study, reflecting that there is no presence of auto-correlation.

5.0 Discussion of Findings

The objective, effect of environmental costs (community development cost, waste management cost, expenses for employee health and safety and cost for research and development) on net profit margin, the Chi-square stat and probability values of Hausman test were 11.26 and 0.0806 respectively. The result revealed that there is no enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimation and random effect estimation is not significant. Hence, the difference in the coefficient is not systematic and the results showed that that have a positive and insignificant effect on net profit margin with their respective coefficient of 1.355925($p=0.752>0.05$), 0.8212421($p=0.847>0.05$), 2.559607($p=0.561>0.05$) and 4.885485($p=0.247>0.05$).

The positive coefficient is in line with the expectation sign and this reflects that with a 1% increase in community development cost, waste management cost, expenses for employee health and safety and cost for research and development, net profit margin will increase by 1.4%, 0.82%, 2.6% and 4.8% respectively, It is positive probably because of the keen interest of the management teams to be environmentally responsible to the community where they operate. However, it might not be significant because of misplaced priorities as regards what the community needs and what the organization is bent on doing for the community. The disagreement of interests might affect the supposed benefits of the environmental cost. Theoretically, this outcome supports the doctrines of the stakeholder's theory that environmental cost should embrace participatory budgeting, where the voices of the people are heard and taken into consideration in the decision-making process. The consequence of this discovery is that environmental cost could stimulate increase in net profit margin but not in a significant way. This finding supports the discovery of Charles, John-Akamelu and Umeoduagu (2017) that there is a positive but insignificant effect of environmental cost on net profit margin. However, this outcome did not support the discoveries of Makori and Jagongo (2013) that environmental cost has a positive and significant effect on net profit margin and that environmental cost has a negative and insignificant effect on net profit margin. The finding slightly supports Lubomir and Dietrich (2018) who revealed a strong relationship between better environmental performance and profitability

6.0 Conclusion and Recommendations

The study concluded that firms' performance in terms of net profit margin might be altered in either a good or negative way by community development cost, waste management cost, expenses for employee health and safety and cost for research and development. Hence, the study recommended that Government must work out modalities that will ensure that commensurable penalties are met out to firms find it difficult to follow environmental protection regulations.

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