

STAKEHOLDERS' EXPECTATIONS AND ENVIRONMENTAL ACCOUNTING PRACTICES OF LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT

The expectations of stakeholders regarding environmental activities of an organisation are factors that should be considered with priority because their actions as individuals or groups could increase or reduce firm value. In view of this, the study investigated the effect of stakeholders' expectations on environmental accounting practices. The study used survey research design and sourced for data by administering questionnaire to employees, shareholders, customers and selected members of the host community of sampled firms. The population of the study comprised all the 67 manufacturing firms listed on the Nigerian Stock Exchange at the end of 2018. A sample of twenty-four (24) firms was purposively selected. Data were analysed using descriptive and inferential statistics. The regression results showing the individual effect of stakeholders' expectations on environmental accounting practices revealed that environmental objectives and policies, occupational health and safety, compliance obligation, and company environmental culture and policies are significantly associated with environmental accounting practices. In contrast, product risk and opportunities do not have a significant relationship with environmental accounting practices of the selected firms. The study recommends that listed manufacturing firms should make efforts to ensure that stakeholders' expectations are taken into consideration in their daily business activities.

Keywords: Environmental accounting practices; Expectations, manufacturing firms; Nigeria; stakeholders

1. Introduction

In the past, corporations ignore or pay limited attention to other factors apart from their own structural and infrastructural strategies. This has caused a series of environmental and social problems (Meng and Zhao, 2011). Issues about global warming, ozone depletion and environmental degradation have heightened the pressure on corporations regarding the need for greater awareness and accountability (Darškuvienė and Bendoraitienė, 2014). Companies previously credited for contributing to economic and technological progress are now being criticized for creating problems such as pollution, waste and resource depletion among others (Khaled *et al.*, 2011). Issues are now arising due to economic activities of companies that are linked to negative impacts on the natural environment.

As the role of business in society is changing dramatically, companies are now seen as socio-economic entities that need to be responsible particularly regarding all activities that have a bearing on the society (Jariya, 2015). However, corporations have failed to balance economic growth against social and environmental needs as well as the different needs of various stakeholders (Karambu and Joseph, 2016). Stakeholders are a key factor in the success of

environmental accounting practices as without their engagement and loyalty, the organisation may not achieve its objectives (Nikolova and Arsić, 2017). Hence, the business is accountable to the various stakeholders who can be identified and have a claim, either legally mentioned or morally expected. Business managers must satisfy a variety of stakeholders who can influence business outcomes by withdrawing their support if they perceive they are not benefiting from the activities of the company that explores their environment (Charles *et al.*, 2017).

Authors such as Krivačić and Janković (2014), Oyadonghan and Eze (2013), Ros and Terry (2000) and Waris (2013) have identified a variety of factors that affect environmental disclosure practices adopted by companies. This includes capital markets, accounting and regulatory framework, enforcement mechanisms, culture, stakeholders' interest, and reputation. Despite the recognition of stakeholders' interest, the expectations of stakeholders regarding environmental practices of firms have been overlooked by previous researchers (Noradiva and Maizatulakma, 2018; Yazbehl, 2010; Uwuigbe and Olusanmi, 2013).

This study is significant for the manufacturing industry because the firms are at risk of breaching the social contract due to their production activities that may pose unacceptable environmental risks or damage to the environment. The industry has a large number of firms across seven sectors on the Nigerian stock exchange. However, previous researchers have always based their study on mainly oil and gas firms while ignoring other parts of the manufacturing sector. In addition, findings from this kind of study covering all manufacturing sectors can be best-fit for generalization.

To bridge the gap in literature, it is expedient to consider the expectations of various stakeholders concerned about environmental accounting practices, especially among manufacturing firms who are most expected to be environmentally responsible due to the nature of their activities. The objective of this study therefore is to identify the expectations of stakeholders regarding environmental accounting practices of listed manufacturing firms in Nigeria. The study also examines the effect of stakeholders' expectations on the environmental accounting practices of the firms.

2. Literature Review

2.1. Concept of environmental accounting

Environmental accounting is an important element of business sustainability that has become an inevitable management tool in modern business because it is key to the implementation of the environmental sustainability revolution (Krivačić and Janković, 2017; Yazbel, 2010). Environmental accounting is a subset of social accounting which principally involves the preparation, presentation, and communication of information related to an organisation's interaction with the natural environment (Patel, 2015). It is a term that relates to the provision of environmental performance-related information to stakeholders both within and outside an organisation (Saremi and Nezhad, 2014). Firms are expected to address the environmental impact of their company by communicating strategy and information that go beyond economic indices that dominate annual reports.

In an investigation with the Federal Ministry of Environment by Enaharo (2009), the author concludes that achieving effective environmental accounting practices are fraught with uncertainties in Nigeria. Musa *et al.* (2015) analysed environmental accounting practices of Nigerian quoted firms. The author reported variations from one company to another and attributed this to lack of mandatory disclosure guidelines.

2.2. Concept of stakeholders' expectations

The definition of stakeholders implies that stakeholders are any group or individuals that can affect or be affected by the actions and decisions of an organisation (Freeman, 1984; Nikolova and Arsić, 2017). Scholars of management describe expectation as a factor that induce changes in the relationship between an organisation and its stakeholders (Darskuvienė and Bendoraitienė, 2014). The expectations of stakeholders are described as the reason for differences in the opinions and actions of individuals/groups that are exposed to the same social phenomenon. The stakeholders of a company will form their perception of the company depending on their individual expectations about the firm's social responsibility and their degree of awareness of socially responsible activities conducted as part of the business processes (Andrija, 2017; Pomeroy and Dolnicar, 2009).

The expectation of stakeholders regarding the activities of an organisation is a factor that should be considered with priority by the management team during strategic planning. This is because the actions of stakeholders as individuals or groups add value to the firms by increasing productivity, profitability, public image and overall business sustainability (Igbekoyi, 2017).

2.3. Environmental objectives and policies

Environmental policies are certain principles in use by firms to guarantee and safeguard the environment and its biodiversity (Ubleble and Gbenemene, 2017). Environmental objectives set by firms guide their thinking towards reshaping their activities for environmental management. Henri and Journeault (2008) posit that the projection of a green image is vital for many companies because stakeholders like employees and shareholders value a green image. Therefore, clear incorporation of environmental objectives in each business activity becomes a powerful force for transformation of the business and society (Saremi and Nezhad, 2014).

2.4. Product risk and opportunities

The development of environmental accounting became necessary due to customers' preference for environmentally friendly products. An environmentally friendly product is one that does not damage the environment when it is being prepared or used (Islam *et al.*, 2017). Many companies are launching green products in a bid to promote energy conservation and environmentalism. This is important because during the past years, there has been a growing pressure on businesses to pay more attention to the environmental and resource consequence of the product and services they offer (Kleindorfer *et al.*, 2005).

2.5. Occupational health and safety

Environmental issues in the business context deals with sanitation and waste management in the work environment (that is, occupational health and safety). Corporate health and safety is the part of sustainability accounting that focuses on securing and promoting safety and health of employees (Rikhardson, 2005). They shape a company's relationship with pressure groups in particular and help it to strategically manage emerging issues with labour groups by upholding a friendly image (Adagye and Abubaker, 2018).

2.6. Compliance obligation

Environmental compliance obligation is a legal obligation to remove or remediate pollution from the environment including the soil, air, groundwater and surface water (Howell *et al.*, 2019). These obligations can arise from the operation or mere ownership of a facility. Awareness of this by firms should spur them to collective responsibility of safeguarding the environment for the present and the future. Since the livelihood of rural communities is extremely dependent on the

environment in terms of food, wood, energy and lots more, they need to show compliance to environmental laws of the country. The efforts of government to keep the environment safe must not be compromised at any point of their economic activities (Ubleble and Gbenemene, 2017). Henri and Journeault (2008) posit that one of the reasons for undertaking environmental accounting in Europe is legal compliance.

2.7. Company environmental culture

A firm may choose to be a step ahead of regulations by showing good environmental culture. Since the environmental policy of a firm is expected to be guided by the pursuit of sustainable development of the country, it is upon these policies and objectives that the efficacy of company environmental culture can be validated. Environmental culture is to provide ways of dealing with the environment. The interrelationship between a firm and its environment must sustain a rational outlook in the utilization of Nigeria's resources at all times (Ubleble and Gbenemene, 2017). However, this relationship is guided by the firm's environmental culture. Fatunsi (2015) examined environmental impact of firms on nearby residents, and found that the residents perceived some discomfort based on industrial activity. This indicates display of bad environmental culture of some firms.

2.8. Theories and hypothesis

A good number of theories like institutional theory, legitimacy theory and stakeholder theory among others have been used by numerous authors to explain the underlying reasons for corporate environmental practices (Ali and Rizwan, 2013). Stakeholder theory was proposed by R. Edward Freeman in his business literature entitled *Strategic Management: A Stakeholder Approach* (Freeman, (1984). Stakeholder theory emphasises that beyond shareholders there are several agents that are interested in firms' actions and decisions (Fadun, 2014). As management theory, it is concerned with the interrelationship between the company and its stakeholders. Mohammed (2018) claims that businesses should be running their affairs taking into consideration all their stakeholders' expectations with a view to achieving sustainable development. According to stakeholder theory, the principal function of managers is to tackle stakeholders' needs, expectations and conflicts (Noradiva and Maizatulkama, 2018). This shows that the firm is not a mechanism to increase the financial returns of the stockholders alone but ia also a vehicle for coordinating the interests of various stakeholders (Ali and Rizwan, 2013). Considering stakeholder's power, stakeholder theory contends that firm behaviour is conditioned by the pressures exercised on organisations by different stakeholders (Husillos and Álvarez-Gi, 2008).

Furthermore, legitimacy theory which originated from the concept of social contract explained how organisations act in relation to socially determined expectations is based on the perception of the firm by the stakeholders (Lim *et al.*, 2010). Social contract explains that an organisation should ensure its activities and its performance satisfy social expectations in order to get rights of sustainable operation. Iredele and Ogunleye (2018) evaluated the environmental accounting practices in Nigeria and South Africa. They found that the major limitation to environmental accounting practices among sampled firms in Nigeria are institutional barriers. This barrier exists because of the weakness of institutional forces such as government, shareholders and all other stakeholders in promoting environmentally conscious society. The assertions above lead to the statement of the hypothesis.

H₁: Stakeholders' expectation does not have an effect on environmental accounting practices of listed manufacturing firms in Nigeria

2.9. Empirical review

Fatunsi (2015) studied environmental quality perception and management in firms in Ondo State, Nigeria. The main objective was to examine how the stakeholders of the firms perceive their actions in terms of environmental quality management in their plants relative to human ideals of welfare. A sample of 200 firms was taken for the study. Two different sets of questionnaire were administered on the business proprietors and people living within 100m radius of each selected firm. The towns were identified and numbered during an initial reconnaissance survey. Data were analysed by using simple tables and mean weighted values. The results showed that out of the 200 residents sampled, majority (87.2%) believed they were injuriously affected by the operation of adjoining factories. Moreover, there existed a discrepancy of opinion among proprietors and people living nearby on the assessment of environmental management techniques adopted in managing wastes.

Hua-Hung and Pei-Ching (2015) examined the effects of green innovation on environmental and corporate performance. Their study sought to establish the relationships among stakeholders, green innovation, and performance. An empirical survey was conducted on 202 Taiwanese service and manufacturing companies. The study mainly used partial least square analysis (PLS) (Smart PLS 2.0) to test and analyse hypotheses. The results showed that pressure from competitors, government, and employee conduct encourages green innovation practices. The PLS analysis also revealed that pressure from customers and suppliers about green innovation practices did not significantly influence environmental practices.

Ogbodo (2015) investigated stakeholder approach to triple bottom-line accounting in Nigeria. The study empirically examined the perceived importance of triple bottom-line disclosures to stakeholders. Descriptive method of research was employed to generate the required data. The population of the study was made up of three distinctive groups: investors, customers, and accountants. The findings indicated that investors had no confidence in the use of triple bottom-line reporting as a basis for choice of investment decision while customers do not rely on the use of triple bottom-line reporting as a medium for assessing organisations' impact on the society.

Fadun (2014) studied Corporate Social Responsibility (CSR) practices and stakeholders' expectations in Nigeria. The objective was to identify stakeholders' expectations regarding CSR. Employees, customers, shareholders, and local communities were identified as the main stakeholders in the context of the business environment in Nigeria for the purpose of the study. Survey and quantitative research strategies were adopted for the study. Two hundred and forty copies of questionnaire were administered to participants, selected purposively, in the six geopolitical zones of Nigeria. The findings indicate that CSR is concerned with treating stakeholders ethically; and that the four dimensions of CSR (economic, legal, ethical and philanthropic) are not ascribed equal importance in Nigeria. Nigeria's stakeholders place more emphasis on economic, legal and ethical responsibilities than on philanthropic components.

Ndifon *et al.* (2014) conducted a study of development of environmental accounting and disclosure practices of manufacturing companies in Nigeria with emphasis on United Cement Company of Nigeria (UNICEM) Plc, Niger Mills Nigeria Plc and PAMOL Nigeria Ltd. Using questionnaire to gather data, the study revealed that manufacturing companies do not charge

environmental expenditures independently of other expenditures and that the level of environmental cost awareness in manufacturing companies in Nigeria are not high.

Uwuigbe, *et al.* (2013) studied corporate environmental accounting practice in Nigeria from the perception of preparers and users. The study aimed at a comparative analysis of the perceptions of preparers and users of accounting information towards the disclosure of environmental information in annual reports of organisations in Nigeria. A total of 450 copies of questionnaire were distributed to accountants, managers and lobby groups in the three local government areas identified. The study used simple percentages and charts for data presentation. Results showed that environmental information should be disclosed in the financial statements of organisations while 36.5% were of the opinion that the present (conventional accounting) system is sufficient and therefore reject the idea on the need for the disclosure of environmental information.

Asuquo (2012) studied environmentally friendly policies and their effects on corporate financial performance of selected oil and gas companies in the Niger Delta region of Nigeria. It was aimed at investigating if companies operating in the Niger Delta Region of Nigeria practice environmental accounting to the extent of inclusion of environmentally friendly policies, and if so, how this affects their profitability. It was revealed that the cost of ensuring environmentally friendly policies as well as firm competitiveness has significant relationship with the firms' profitability, and that environmentally friendly organisations enjoy a high level of corporate competitiveness resulting in high performance.

Onyali *et al.* (2015) examined effectiveness of triple bottomline (TBL) disclosure practices in Nigeria, with the objective of understanding the perception of Nigerian investors and consumers towards firms' triple bottom-line disclosure practice in Nigeria. The study adopted the descriptive research design, and the questionnaire used in the study was structured using a five-point Likert scale. The findings indicated that investors and consumers expressed dissatisfaction with the extent of firms' TBL disclosure practice in Nigeria. In their own view, most organisations' reports were often vague and far from the expression of actual performance.

Beredugo and Mefor, (2012) studied the impact of environmental accounting and reporting on sustainable development in Nigeria. The authors sought to evaluate the relationship between environmental accounting and reporting, and sustainable development in Nigeria. Beredugo and Mefor, (2012) adopted a survey research design and discovered that there is a significant relationship between environmental accounting and reporting and sustainable development. There also exists a statistically significant difference in the perception of preparers, auditors and users of accounting information on the consequences for non-compliance with environmental accounting and reporting.

3. Methodology

The study used survey design to obtain information about stakeholders' expectations and environmental accounting practices among listed manufacturing firms. The use of quantitative methods is more appropriate in these circumstances as it helps to provide in-depth access to the experiences of the stakeholder group in question (Uwuigbe and Olusanmi, 2013). Hence, data were collected from primary sources through the use of questionnaire distributed to the target respondents. The target respondents, selected based on previous studies (Fadun, 2014; Hamzah and Abudllah, 2018), are: employees, shareholders, customers and host community of selected firms. In each firm, a senior officer who could provide information for the study was chosen as the respondent. The shareholders were located through their various registered associations,

leaders of the community where the firms are located are considered as host community and the customers that relate with the firms were also given copies of the questionnaire to fill.

The questionnaire was structured in a closed ended form with five-point Likert scale of highly expected, expected, indifferent, not expected, and highly not expected. Reliability and validity of the research instrument was tested using the Cronbach alpha and the results indicated 0.810 and standardized estimates of 0.876. The reliability value exceeded the threshold of 0.70 indicated by Nunnally (1978). Hence, the result shows that the questionnaire has a very high reliability value. The questionnaire was distributed to the respondents at their various locations and the filled questionnaire was later retrieved.

3.1. Population, sample size and sampling technique

The target population of this study comprised the 67 listed manufacturing firms in the Nigerian Stock Exchange as at year ended 2018. The firms classified as manufacturing companies on NSE cut across 7 sectors which are conglomerates, industrial goods, healthcare, oil and gas, natural resources, agriculture and consumer goods. The sample size of 24 used in the study was determined by using purposive sampling technique to pick 30% of each sector's population.

3.2. Research instrument

A total of 161 copies of questionnaire were distributed. The number to be distributed was obtained using Taro Yamane's (1973) formula at 95% level of confidence. The questionnaire is divided into two sections namely A and B. Section A consist of background information about the companies and section B consists of 23 statements that point to the expectation of respondents about environmental accounting practices of listed firms in Nigeria. In developing the questionnaire, existing environmental standards that have been developed as a measure to instrumentally deal with stakeholder issues for example, the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) checklist and ISO 14001-2015 were used. The questionnaire was structured with five-point Likert scale of Highly Expected (5), Expected (4), Indifferent (3), Not Expected (4) and Highly not Expected (1). The questionnaire was designed in such a way that a set of statements were used to assess each of the variables. The variables and their mode of measurement are; Environmental Objectives and Policies (Q1 – Q6); Product Risk and Opportunities (Q7 – Q10); Occupational health and safety (Q11 – Q14); Compliance Obligations (Q15 – 18); Company environmental Culture (Q19 - 23).

3.3. Model specification

To test the effect of stakeholders' expectation on environmental accounting practices, the model is specified in line with literature and ISO 14001-15 and GRI checklist.

$$EnvP = f(EOP, PRO, OHS, CO, CEC,) \dots\dots\dots (i)$$

$$EnvP = a + \beta_1 EOP + \beta_2 PRO + \beta_3 OHS + \beta_4 CO + \beta_5 CEC + e \dots\dots\dots (ii)$$

Where EnvP = Environmental Accounting Practices

EOP = Environmental Objectives and Policies

PRO = Product Risk and Opportunities

OHS = Occupational Health and Safety

CO = Compliance Obligation

CEC = Company Environmental Culture

3.4. Data analysis technique

Data were analysed using descriptive and inferential statistics. Frequencies and percentage distribution were used to analyse data on the background information. Mean score of responses

were used to analyse the effect of stakeholders’ expectations on environmental accounting practices of the listed manufacturing firms using multiple regression at 5 percent level of significance.

4. Data analysis and discussion

Table 1 shows the representation of the respondents’ knowledge of the background information about the companies. According to the respondents, 116 (94.3%) of them are aware of their companies’ mission statement. Similarly, 102 (82.9%) confirmed that their companies communicate its mission statement to stakeholders. Also, from the table, 111(90.2%) of the companies disclose their mission statement while the remaining 12 do not. Similarly, 84 (68.3%) of the companies involve other stakeholders apart from board of directors in decision making while the remaining 39 (31.7%) do not. One hundred and one respondents (82.1%) categorize themselves as stakeholders while the remaining 22 (17.9%) do not see themselves as stakeholders. The unbiased distribution of the instrument used in this study was observed from the Table as 23 (18.7%) are shareholders, 28 (22.8%) as customers, 42 (34.1%) as employees and 30 (24.4%) are members of the host community.

Table 1: Background information of respondents

Variable		Frequency	Percentage
Does Your Company has mission statement	Yes	116	94.3
	No	7	5.7
	Total	123	100.0
Is the mission statement communicated to all stakeholders?	Yes	102	82.9
	No	21	17.1
	Total	123	100.0
Are the missions & vision statement disclosed	Yes	111	90.2
	No	12	9.8
	Total	123	100.0
Does your organisation involve other stakeholders apart from board of directors in decision making	Yes	84	68.3
	No	39	31.7
	Total	123	100.0
Can you categorize yourself as a stakeholder	Yes	101	82.1
	No	22	17.9
	Total	123	100.0
Under which category do you belong?	Shareholders	23	18.7
	Customers	28	22.8
	Employees	42	34.1
	Host community	30	24.4
	Total	123	100.0

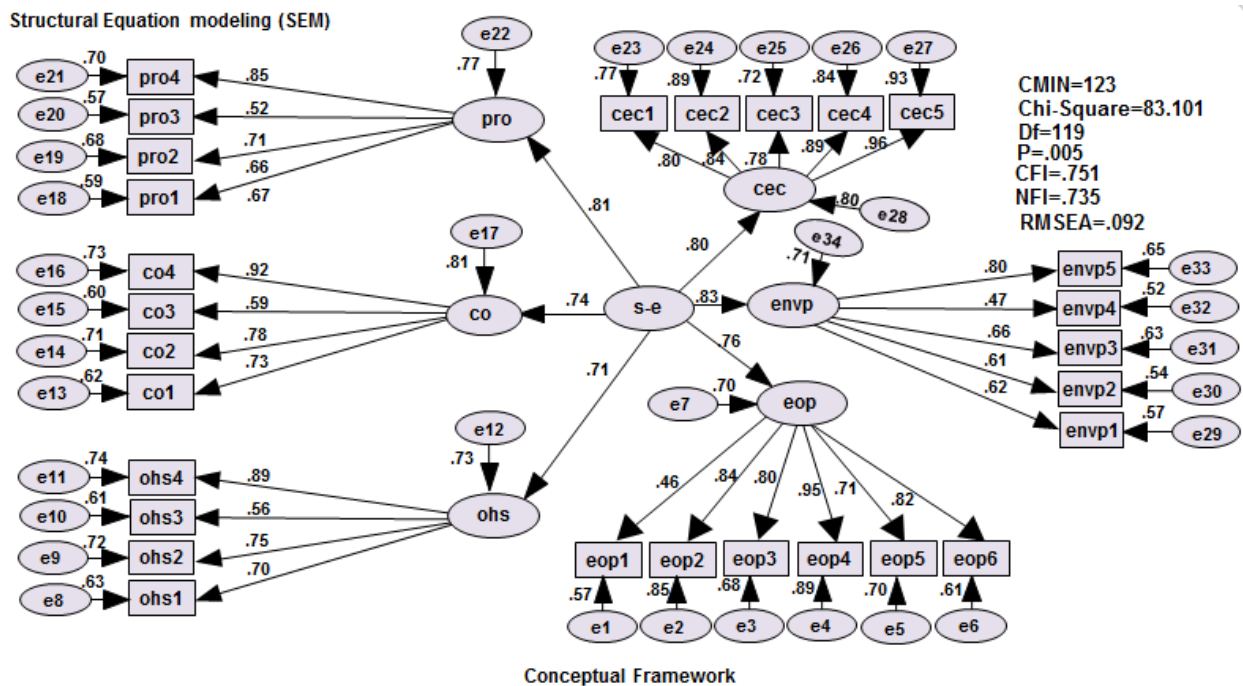
Source: Author’s computation (field survey 2019).

In order to achieve objective I which is identifying the expectations of stakeholders regarding environmental accounting practices of listed manufacturing firms in Nigeria, Structural Equation modeling (SEM) was used to test the relationships between observed and latent (unobserved) variables. In figure 2 below, Environmental Objectives and Policies (EOP) which is the

measurement of shareholder’s expectation has a value of 0.80; Product Risk and Opportunities (PRO) which is used to capture the expectation of customers has a value of 0.76; Compliance Obligation (CO) which is a measurement for Government expectation has a value of 0.71; Company Environmental Culture (CEC) which measures the expectations of host communities has a value of 0.74 and finally Occupational Health and Safety (OHS) which measures the expectation of employees has a value of 0.81 indicating that all identified variables are expectations of stakeholders regarding environmental accounting practices since their values (i.e. 0.80, 0.76, 0.71, 0.74, and 0.81) are greater than 0.50%.

The result in figure 2 also indicates that there is a direct positive relationship between stakeholders’ expectations and environmental accounting practices because it has statistical value of 0.83. This value shows that a one-time increase in the stakeholders’ expectations will lead to 83% increase in the standard deviation of environmental accounting practices in the sampled companies. The findings are consistent with the study of Lindblom and Ohlsson (2011) which revealed that government, top management, shareholders and employees represent the main stakeholders influencing the firm’s environmental strategy.

Figure 1: Conceptual Framework



Objective II: to determine the effect of stakeholders’ expectations on environmental accounting practices

The test for the individual effect of stakeholders’ expectations components on environmental accounting practices, the result is shown in table 2. The table reveals that environmental objectives and policies is statistically significant at 0.6% and its coefficients suggests that a one-time improvement in Environmental Objectives and Policies will increase environmental accounting practices by approximately 13.9%. The result is consistent with the result of the studies conducted by Hussai *et al.* (2016) and Yazbehl, (2010) in Malaysia and United States respectively. They found out that policy regarding carbon footprint reduction is of concern to stakeholders. Hence, environmental objectives and policies have an effect on the firm’s commitment to environmental responsibilities.

Also, Occupational Health and Safety is significant at 0.4% and a one-time improvement in Occupational Health and Safety will increase environmental accounting practices by approximately 5.9%. For compliance obligation, it is statistically significant at 4.1% and one-time improvement in it will increase environmental accounting practices by approximately 62.2%. The findings imply that compliance obligation is very important for companies in improving their environmental practices. Also, Company Environmental Culture is significant at 2.2% and an improvement of it will increase environmental accounting practices by 18.5% while Product Risk and Opportunities is not statistically significant but one-time improvement of it will increase environmental accounting practices approximately by 5.9%.

The results indicate that environmental culture of companies has effect on their involvement in environmental accounting practices. The findings further uphold the position of existing theories like stakeholders and legitimacy theory that stakeholders' expectation has significant effect on corporate practices.

Table 2: Regression Result

Model	Coefficients ^a								
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
C	1.712	.653		2.621	.011	.411	3.014		
EOP	.139	.002	.225	2.687	.006	-.025	.302	.427	2.343
PRO	.059	.083	.110	1.712	.478	-.225	.106	.321	3.117
OHS	.059	.104	.084	2.564	.004	-.267	.149	.345	2.895
CO	.622	.086	.043	2.252	.041	-.192	.149	.265	3.777
CEC	.185	.059	.325	2.344	.022	-.343	.028	.394	2.537

[Summary Stat.]: R²=0.823, DW Stat.= 1.992, F=1.210, Sig.= 0.028

a. Dependent Variable: ENVP

5. Conclusion and Recommendation

Based on the findings, it is concluded that stakeholders' expectations on environmental accounting practices, environmental objectives and policies; occupational health and safety; compliance obligation and company environmental culture are significant factors firms should pay attention to in order to meet the expectations of stakeholders regarding environmental accounting practices. Based on the findings of the study, it is recommended that the management of listed manufacturing firms in Nigeria should ensure that they implement sound environmental objectives and policies; improve their occupational health and safety; show commitment to compliance obligation and entrench good environmental culture.

6. Policy implication of findings

Analyzing the effect stakeholders' expectations could have on environmental practices of firms will help manufacturing firms in particular to develop good environmental policies. This is of great value and increases the quality of companies' reports, improves public appraisal of corporate reputation and enhances brand images. Also, the integration of environmental culture in the company's business strategy may involve redesigning the mission of the firm to incorporate the expectations of relevant stakeholders.

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