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Determinants of Environmental Accounting Disclosure of Listed Oil and Gas Firms In Nigeria

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***Abstract**: The demand for environmental disclosures, have continued to make wave as both the investors, policy maker and others stakeholders continue to see the need. The fluctuation on the reporting has also trigger debate on the mind of researchers as to what determines the environmental accounting disclosure. In the light of this, the study examines the determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria. The study adapted Dibia and Onwechekwa (2015) model and measure environmental accounting disclosure with a dichotomous variable. Data for the study were obtained from the audited annual report of the 10 sampled firms for a period of 7 years covering 2012 to 2018. The study employed pooled logistic regression as tool for analysis and testing of hypotheses. The result shows that profitability has negative and significant effect on environmental information disclosure, leverage has insignificant effect on environmental accounting disclosure, audit firm type and firm size have positive and significant effect on environmental accounting disclosure The study concludes that profitability, firms size and audit firm type are determinants of determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria. The study recommends among others that management of profitability firms should re-orient their mindset on environmental accounting disclosure and continue to see environmental disclosure a necessity for satisfying majority of the stakeholders.*

Keyword: Environmental accounting disclosure, Profitability, Leverage, Audit firm type, Firm size.

Introduction.

In recent years, the increasing popularity and significant of environmental reporting organization on the determinants of environmental disclosure seek to receive greater publicity to disclose environmental information's in their annual reports due to reasons linking the demands by corporate stakeholders' pressure from regulations, the power of environmental groups. The influence of competitors and multinational firms and improving corporate productivity and competitiveness Muttanachai and Stanton (2012). There has been wide-ranging research on the determinants of environmental disclosure in academic research mainly in accounting. Walter Corrier and Michel (2006) exposed that environmental disclosure is highly desirable. Richardson and Welker (2001) stated that environmental disclosure may in fact be disadvantageous to firm's cost of capital. The field of environmental accounting has made great strides in the past two decades, moving from a rather arcane endeavor to one tested in dozens of countries and well established in a few. But the idea that nations might integrate the economic role of the environment into their income accounts is neither a quick sell nor a quick process; it has been under discussion since the 1960s Jaroslav and Miroslav (2006) Accountants. As the basic custodians and light bearers of economic development can no longer shut their eyes to the issues of environmental accounting on business management, accounting, and audit disclosure system. Protection of environment and the potential involvement of accountant is becoming a common subject of discussion among the accountant all over the world (Pramanik, Shil & Das. 2007). Accountants are expected to take a proactive role in the environmental protection process with the advent of liberalization. Removal of trade barriers makes it logical that the costs of environmental degradation due to industrial activities should be internalized in corporate account to the extent possible that is why - environmental accounting and reporting is paramount importance today (Pellegrino & Lodhia. 2012). According to Holt (2012). There is an increasing trend to judge an enterprise in relation to the community in which it operates. The impact of activities of the organization on the environment with respect to pollution of water, air, land and abuse of natural resources are coming under the scrutiny of government shareholders and citizens. Unless proper accounting work is done either by the individual organizations or by the government itself, it cannot be determined that both have been fulfilling their responsibilities towards the environment (Holt, 2012). Therefore, the need of environmental accounting has emerged. In the early 90's the concept of public environmental reporting received greater publicity since the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992. Ishak (2010) And the World Bank set out to examine the feasibility of physical and monetary accounting in the area of natural resources and the environment and to develop alternative macro indicators of environmentally adjusted and sustainable income and product. Simultaneously. The Statistical division of the United Nations (UNSTAT) also developed methodologies for a System of integrated Environmental and Economic Accounting (SEEA). Environmental accounting at organizational level aims to address the needs of organization to measure the economic efficiency of their environmental conservation and the business activities of the company as a whole (Kundu & Hauff, 2009). Environmental accounting includes environmental management accounting. Environmental accounting disclosure can have an impact on financial statements prepared on an accrual basis: in many ways. There are international accounting standards such as International Accounting Standard Board (IASB), Financial Accounting Standard Board (FASB). And International Financial Reporting Standard (IFRS), which address the general principles for the recognition. Measurement and disclosure of environmental matters in a financial report (S-39). The introduction of environmental laws and regulations may involve an obligation to recognize impairment of assets and consequently a need to write down the carrying value. A failure to comply with legal requirements concerning environmental matters such as emission or waste disposal may require accrual of remediation works, compensation or legal costs (Rahman. 1999). According to Clarkson, Li, Richardson and Vasvari (2008), disclosure and transparency are critical Clements of a robust corporate governance framework as they provide the basis for informed decision-making by shareholders. Stakeholders and potential investors with respect to capital allocation. Corporate transactions and financial performance monitoring. An increasing number of countries impose requirement on companies to report on their environmental performance. Denmark was the first country to adopt legislation on public environmental reporting. In this country, the companies are required to prepare Green Account. Pramanic al et. (2007) carried out a report in Norway. and report that the new accounting Act 1999 requires that all companies should include environmental information in their annual report from 1999 onwards. According to Joshi. Suwaidan and Kumar (2011), the economic reforms started by Government of India during early 90s, have paved way to rapid economic development and accelerating the process of industrialization. As the industrialization is also creating more environmental problems such as pollution, companies have started providing information about their environmental performance and policies owing of increased accountability. Globalization of capital market and internationalization has come to stay the need for harmonization of financial statements and single set of consistent high quality financial reporting standard gained wide spread acceptance amongst policies makers, standard setters and preparers (Godfrey, Hodgson, Tarca, Hamilton, & Holmes, 2010). The need for good disclosure and uniformity in the preparation and presentation of financial statements gave birth to International Financial Reporting Standards (IFRS). Before the adoption in Nigeria (pre-adoption), there was legal and regulatory framework of accounting in respect to preparation of financial report in Nigeria (Abdulkadir, 2013). Therefore, the adoption of IFRS in Nigeria was launched 11 September. 2010 by the Minister of Commerce and Industry. The adoption was organized in such that the entire stakeholders that prepare and present financial statement use it by the beginning of 2014. The adoption was made in such a way that all the first tier companies listed on the stock exchange and of public interest use it by 2012 (post adoption), all other companies of public interest but not first tier are to adopt in 2013 and all small and medium scale entity use it by January 2014. The environmental reporting or sometimes known as green reporting Nigeria is one of the voluntary social reporting included in the financial statements. At the beginning the issue of social and environmental reporting is somewhat neglected. The nature of accountant's focus is dominated by traditional economic thinking, which tends not to take account of social and environmental impacts (Parker, 1997). Internationalization and globalization of business has given reason for harmonized financial statement preparation and presentations (Isabel & Mariela, 2009). Companies compete globally for limited resources, shareholders, potential investor and creditors as well as multinational enterprises are required to bear the cost of adopting financial statement that are prepared using national standards (Abdulkadir, 2013). It is expected that the move towards IFRS convergence will enhance capital market performance and ginger global business expansion in Nigeria. In view of this development all corporate organization are expected to adopt and comply with IFRS in preparation and presentation of their financial statements (Ogborna & lyoha. 2006). Therefore, Environmental disclosure should I have bottom line benefits in order to be sustainable. This study is carried out to contribute from an African nation perspective to the global literature on environmental disclosure in annual reports and also to provide a basis for corporate investment decision making. The current global corporate move, towards environmental accounting disclosure makes it necessary for Nigerian companies to join the cue. However, there is a question of whether companies in the challenging business environment, continue with environmental accounting. When there might not be a favorable economic return it is important to consider, if environmental accounting of disclosure generate benefits to sustain the venture. That is to say, whether environmental accounting disclosure, improves corporate performance, which according to Jensen (2002), is the prior objective of any firm. Thus, it is against this background that this study is carried out. To address the above mentioned problem.

Statement of the problems.

Nigeria has undergone rapid socio economic and physical development since independence. The country therefore faces numerous challenges to achieve development that is economically and environmentally sustainable. Development achieved so far cannot be described as sustainable because the various development processes have misused or over exploited the natural resources and in the process, affected the environment negatively as well. Multinational oil companies in Nigeria extract a large amount of the world's energy but treat the indigenous resident with neglect. Therefore, the gross level of environmental degradation caused by oil exploration and extraction in the Niger Delta has gone unchecked for about fifty years. The increasing concern about environmental degradation and resources depletion (especially in the Niger Delta area) is a source of worry. And also, many oil companies in Nigeria are usually faced with youth restiveness as a result of unemployment, and Non-availability of social amenities. This has led to a series of vandalization of oil pipeline and other valuable companies' properties the above problem could be averted if the oil companies manage their social and environmental cost efficiently and effectively. It is often alleged however, that listed and non-listed companies do not fully comply with the disclosure requirements such as Companies and Allied Matters Act 1990, Securities and Exchange Commission Rules and Regulations (1999). Nigerian Stock Exchanges Act (1961), Banks and Other Financial Institutions Act (1991), Nigerian Insurance Act (2003), Nigerian Accounting Standards Board Act

(2003). Institute of Chartered Accountants of Nigeria Act (1965) and Association of National Accountants of Nigeria Act (1993) stipulated by the regulatory agencies because of the above problems. Also, the limited awareness of environmental costing principles and methodology has become an important issue to be addressed. If environmental issues and activities that are vital are not disclosed, financial statement cannot be said to reveal state of true and fair view of affairs. According to Bassey, Effiok and Okon (2013), environmental disclosure helps the form to record of all environmental costs incurred by the business thereby finding a way of reducing the cost (environmental expenses) so that the business can increase profit.

Research Question

1. To what extent does profitability have an impact on environmental accounting disclosure of listed oil and gas firms in Nigeria?
2. What extent does leverage has an impact on environmental accounting disclosure of listed oil and gas firms in Nigeria.
3. To what extent does auditor type have an impact on environmental accounting disclosure of listed oil and gas firms in Nigeria?
4. To what extent does firm size have an impact on environmental accounting disclosure of listed oil and gas firms in Nigeria?

The general objective of this study was to determine the Determinant of environmental accounting disclosure of listed oil and gas firms in Nigeria.

The study was guided by the following research objectives:

1. To examine the effect of profitability on environmental accounting disclosure on the listed oil and gas firms in Nigeria.
2. To determine the effect of leverage on environmental accounting disclosure on the listed oil and gas firms in Nigeria.
3. To examine the effect of auditor type on environmental accounting disclosure on the listed oil and gas firms in Nigeria.
4. To determine the effect of firm's size on environmental accounting disclosure on the listed oil and gas firms in Nigeria.

Research Hypotheses

In line with the statement of the problem and the objectives of the study, the following hypotheses are formulated in null form to guide the study:

$H0_I$: There is no significant relationship between profitability and environmental accounting disclosure on the listed oil and gas firms in Nigeria.

$H0_2$: There is no significant relationship between leverage and environmental accounting Disclosure on the listed oil and gas firms in Nigeria.

$H0_3$: There is no significant relationship between auditor type and environmental accounting Disclosure on the listed oil and gas firms in Nigeria.

$H0_4$: There is no significant relationship between firms' size and environmental accounting disclosure on the listed oil and gas firms in Nigeria.

Literature Review

This study is on the determinant of environmental accounting disclosure of listed oil and gas firms in Nigerian that are listed on the Nigerian Stock Exchange from 1st January, 2014 to 31st December 2020. The study will cover a period of 7years (2014 to 2020). A sample of 10 quoted companies drawn from the oil and gas sectors of the Nigerian stock exchange from (2014-2020) financial years was used for the study. The findings of this study are expected to be of great importance to the management, and government and shareholders as well as future researchers. The study is of use to the Policy makers who need the information on the various ways to analyze the financial statements and their importance for planning, bench marking and drawing comparisons.

This chapter reviews the contributions made by other scholars on the determinant of environmental accounting disclosure. It covers the conceptual frame-work where concepts related to environmental accounting disclosure are discussed. Empirical studies related to this work are also reviewed in this chapter and, finally, theories related to this work conclude this chapter. The rationale is to critically use the existing studies to establish a basis for the validation of the findings of this research work.

Concept of Environmental Accounting

Environmental accounting is a word with a different of meanings. In many contexts, environmental accounting is taken to mean the recognition and reporting of environmental specific costs, such benefits that arise from changes to a firm's products or processes, where the variation also consist of liability costs or waste disposal costs. Environmental accounting includes any costs and alteration in environmental impacts (James, 1998). He added that environmental accounting information does not need to the invention of accountants, nor need it be used by accountants. Instead, it is any information with either explicit or implicit financial content that is used as an input to a firm's decision making.

Concept of Environmental Accounting Disclosure

Corporate disclosure is essential for well-being of a capital markets (Healy & Palepu, 2011). Published annual reports are required to provide various users such as shareholders. Employee's suppliers, creditors, financial analysts, stockbrokers, management, and government agencies with timely and reliable information useful for making prudent, effective and efficient decisions.

Profitability

The goal of every business organization is to make profit (Nimalathasan, 2009). Thus profitability, referred to the ability of a firm to make profit. A business operation that is not profitable in a long run may not survival. Profitability is defined by Pandey (1980) as the ability of a business operation, although it infers the word profit in relative to other components.

The Concept of Leverage

Leverage is referred to the amount of debt in a capital structure. Velez (2010) stated that leverage is degree to which a company utilizes fixed items, such as debt and preferred equity According to Duong (2019) leverage is referred to the measure of a debt a firm has used in the past to acquire assets. It is also seen as the percentage of funds provided by the creditors (Brigham and Houston, 2013). In the angle of equity, Enekwe, Agu, and Eziedo (2014) opined that leverage a financial ratio showing the relative fraction of debt used to finance a firm's assets. Ibrahim (2016) seed leverage as firm obligation of money suppliers to the entity worth, which he measured as the ratio of total liabilities to total assets.

Concept of Audit Firm Type

Audit firm type is mostly accessed based on their size. Brandon and Mueller (2006) defined a "large firm" as an international accounting firm with offices in more than 60 cities with 20,000 professionals and a "small firm" as an accounting firm with offices in four cities with 230 professionals. Lowe et al. (2002) contends that the opinion of large audit firms providing high quality audits, and the greater incentive of larger firms to avoid litigation due to reputational concerns. Some researchers have considered audit firm type as the differentiation between the big 4 audit firms and non-big 4 audit firms (Dibia &Onwuchekwa, 2015; Welbeck, Owusu, Bekoe & Kusi). The Big Four comprises of the world's largest accounting firms which are KPMG, Deliotte, Pricewatercooper and Enrst and young).

The Concept of Firm Size

The concept of firms can be derived from researcher's perception of a firm. According to Hart (1995) firm is defined as the possession of assets rights to a firm. Thus the concept is limited to risk of economy right. With this definition, a firm is pictured as a set of assets under collective ownership and control.

Theoretical Framework

Different views on what constitutes determinant of environmental accounting disclosure are recognized. These are the stakeholder's theory approach (Mitchell, Agle& Wood, 2000), the legitimacy theory (Cho and Patten (2007), and the Signaling theory was used in prior studies to explain why managers' voluntary disclose forward-looking information in their annual report narratives (Schleicher et al. 2007).

Stakeholder Theory

The stakeholder theory is one of the various approaches that try to explain or rationalize strategy of organizations. It has its main underpinning on the emphasis placed on the role of stakeholders of a firm in the pursuit of its objectives. Stakeholder theory attempts to articulate a fundamental question in a systematic way, which groups are stakeholders deserving or requiring management attention.

Legitimacy Theory

The legitimacy theory is probably the most widely used to explain environmental disclosure. According to Cho and Patten (2007), the legitimacy theory implies that environmental disclosure is a function of the intensity of societal and political pressure faced by a company regarding the environmental performance. This chapter presented the research methodology to be employed by the study. It covers research design, the population of the study, the sample size and the sampling technique and the sources and methods of data collection to be use in conducting the research work. The chapter also explains the variables of the study and their measurement and the method for the analysis of data.

This chapter presented the research methodology to be employed by the study. It covers research design, the population of the study, the sample size and the sampling technique and the sources and methods of data collection to be use in conducting the research work. The chapter also explains the variables of the study and their measurement and the method for the analysis of data. Various scholars have defined research design and the definitions seem to move towards the same direction. Beck (2003) defines research design as the overall plan for obtaining answers to. The questions being studied and for handling some of the difficulties encountered during the research process. In view of the above study this study used historical panel data, covering the period from 2014 to 2020. The population of this study comprises all the (12) Nigerian oil and gas firms that are quoted on the floor of the Nigerian Stock Exchange from 2014 to 2020. The sample size is arrived at by the use of a filter and is based on three criteria. First, an oil firm's must have been listed on the NSE, on or before 31 December, 2014; secondly, it must have consistently filled its annual reports and account with the Nigerian Stock Exchange and Corporate Affair Commission within the period under review. The main aim of this study is to evaluate the determinant of environmental accounting disclosure of listed oil and gas firms in Nigeria. In line with the aim of this study and based on the relevance of the secondary data to the research, the study used secondary sources of data. Data will obtain from the annual reports and accounts that cover the period from 2014 to 2020. From annual reports and accounts of the sampled oil and gas firms, the choice of the sources and methods of data collection was influenced by the model that was used for measuring the determinant of environmental accounting disclosure of oil and gas firms; and it is in line with the works of Dibia and Onwuchekwa (2015), Omokhudu.And Ikhenade and Oserogho (2016), (2014), Karimzadeh (2012), Rahim (2015) and Okorie and Agu (2015). The technique of data analysis depends on the measurement of the variable. For instant, if the measurement of the variable is ratio or interval scaling, one can use ordinary least square (OLS). However, the objective of this research is to examine the determinants of environmental Accounting disclosure of listed oil and gas firms in Nigeria. To achieve this, a panel data analysis was used to analyze the data generated for the study. A binary regression method will adopted as the data analysis method. Binary regressions have the objective of obtaining a functional relationship between a transformed qualitative variable called logit and the predictor variables which can either be quantitative or qualitative. The choice of logistic regression models is because of the nature of the dependent variable which is categorical and the inability of the Ordinary Least Square (OLS) multiple regression model to yield reliable coefficients and inference statistics in situation where the dependent variable is binary (0 and I). The logistic regression models unlike others is based on the use of dichotomous dependent variable, in which an observation scores one(l) if it is present and zero (0) if it is otherwise.

Model Specification and Variable Measurement

The model for the study is specified thus;

ENVD = F (PROF, LEV, ADFT, FSIZE). (1)

This can be re-specified in regression form as;

$ENVD_{it}=B0+\beta_1 PROF_{it}+\beta_2 LEV_{it}, \beta_3 ADFT_{it}+\beta_4 FSIZE_{itt}+e_{it}$ (2)

Where: ENVD = Environmental Disclosure

LEV = Leverage

PROF = Profitability

ADFT = Audit firm Type

FSIZE= Firm Size

The prior signs are B 1 > 0, B2 >0, B3 > 0, B4 >0

The Independent Variables

The independent variables to be use in this study are profitability, Leverage, Auditor firms Type, Firms Size

Measurement of Variables

The means by which the various variables adopted in this study to be measure or computed

Measurement and Explanation of Variables

VARIABLES	MEASUREMENT	SOURCES
ENVD	1= Companies that disclose environmental information in their annual report audit, 0 = Otherwise	Dibia, and Onwuchekwa (2015) and Muttaqien (2018)
LEV	Leverage is total debt/ total assets	(As used by Ong, Lim and eh (2011) and Alrafadi, Kamaruddin and Yusuf (2014)
PROF	Profit before tax/ Total Asset	(As used by Ong, Lim and The (2011), Isa (2012) Alrafadi, Kamaruddin and Yusuf (2014)
AUDFT	Auditors type, 1 = Big four 0 = Otherwise	Annual Report
FSIZE	Log of total assets	(As used by Alrafadi, Kamaruddin and Yusuf (2014), Ong, Lim and The (2011) and Sufian (2009)

Presentation of the result

This chapter presented, analyzed and interpreted the result obtained from various test conducted on the data collected were. It begins with the discussion of descriptive statistics, followed by the correlation matrix, robustness tests conducted and the regression results. The chapter concluded with the discussions of the major findings from the analysis as well as policy implications of the findings.

Descriptive Statistics

The descriptive statistic table displays information on the mean, standard deviation, maximum and minimum for each of the dependent and independent variables**.** Table 4.1 below contains the Summary of Descriptive Statistics.

Table 4.1

Summary of Descriptive Statistics

VARIABLES	OBS	MEAN	STD. DEV	MIN	MAX
ENVD	70	.70	.46	0	1
PROF	70	.002	.140	-.557	.371
LEV	70	.750	.344	.023	2.22
ADFT	70	.743	.440	0	1
FSIZE	70	6.69e+10	7.03e+10	4715000	3.12e+11

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Source*:* **Output of summary of statistics obtained from STATA 13.**

Table 4.1 above showed that the dependent variable environmental disclosure has a minimum and a maximum value of 0 and 1. The mean value for environmental disclosure is .70 and a standard deviation of .46 is recorded. This shows that the average record of environmental disclosure across the firms during the periods of the study is 70%. This signifies that the disclosure on environmental information in the listed oil and gas firms in Nigeria is relatively high. The standard deviation of 0.46 indicates that this high disclosure pattern and is common among the firms under study as there is a low dispersion from the mean. Also, the table 4.1 showed that profitability has an average value of .002 with a standard deviation .14 indicating a wide variability in profitability of the listed oil and gas firms in Nigeria. Further the descriptive table above also shows that the minimum value is a loss in return on assets of 55.7% and a maximum profit of 37.12% respectively. The table 4.1 reveals that the mean value of leverage is 0.75 and it has a standard deviation of .34 suggesting that the level of leverage is not widely dispersion among the listed oil and gas firms in Nigeria. The mean value suggest further that the sample firms high levered firms as the average debt capital of the firms stood at 74%. The table also showed that the minimum and maximum leverage are .023 and 2.22 respectively. Also, the table showed that the average value of the audit firm type is .74 and the standard deviation .44. this indicates that majority of the oil and gas firms employ the serve of the big 4 audit firms (KPMG, Ernst and Young, Deloitte and Pricewatercooper). The standard deviation value indicates that it is a common practice as audit firm type of the firms has a low dispersion from their means. The minimum value is 0 and maximum value is 1.

The table 4.1 presents the mean percentage of firm size of the listed oil and gas firm to be 66.9billion and a standard deviation to be 70.3 billion. The standard deviation shows that there is a wide spread of the data from their mean. This is supported by the minimum value of 4715000 and the maximum value is 312 billion.

Correlation Matrix of Dependent and independent variables

The correlation matrix expresses the relationship between each two sets of variables in the regression model. According to Gujirati (2004), all variables that have less than 0.80 correlation coefficient are considered harmless and can be included in the same regression model, since there is no interdependency among the independent variables. Further it is expected that there should be strong relationship between the dependent variable and the independent variables.

Table 4.2

Correlation Matrix of Dependent and Independent Variables

VAR	ENVD	PROF	LEV	ADFT	FSIZE
ENVD	1.000				
PROF	-0.130	1.0000			
LEV	0.193*	-0.283*	1.0000		
ADFT	0.542*	0.060	0.184	1.0000	
FSIZE	0.117	-0.092	0.113	-0.273*	1.0000

Source: output of correlation matrix obtained from STATA 13.

The correlation matrix table revealed that the correlation coefficient between environmental disclosure and profitability is -0.130. The result suggests that profitability has a negative and weak correlation with environmental disclosure in the listed oil and gas firms in Nigeria.

Table 4.2 also shows that the correlation coefficient between leverage and environmental disclosure is 0.193.The result means that leverage has positive correlations with environmental disclosure of listed oil and gas firms in Nigeria. It suggests that any increase in the level of leverage will result in an increase in environmental disclosure of listed oil and gas firms in Nigeria and vice versa.

Table 4.2 further revealed that the correlation coefficient between the audit firm type and environmental disclosure is 0.542. This indicates that audit firm type has a positive and strong correlation with environmental disclosure of listed oil and gas firms in Nigeria. The result suggests that increase in the engagement of the big 4 firms will increase the probability of environmental disclosure of listed oil and gas firms.

Table 4.2 showed that the coefficient of correlation between environmental disclosure and firm size is 0.117. The result implies that firm size has a positive and weak relationship with environmental disclosure of the listed oil and gas firms in Nigeria. On the relationship among the independents variables themselves, the correlation matrix in table 4.2 shows the independent variables themselves have weak correlation which does not violate the multicolearnity bench mark of +- 0.80 (Gujirati,2004). The table reveals the highest correlation to be between profitability hand leverage, as very moderate correlation recorded evidence from the coefficient of -0.283.

4.4 Result of Robustness Tests

Robustness tests are carried out to test the validity of the statistical inference of a logistic regression model. The robustness tests conducted for this study include multicollinearity test and goodness of fit test and hausman test.

4.4.1 Multicollinearity Test

Table 4.3

Multicollinearity Test

VARIABLES	VIF	1/VIF
PROF	1.10	0.906

LEV	1.17	0.858
ADFT	1.15	0.869
FSIZE	1.11	0.897
MEAN VIF	1.13	

Source: output from STATA.

Multicollinearity test was carried to check the presence of harmful multicolinearity among the independent variables that may affect the regression result. According to Gujarati (2004), a variable is consider less harmful if it has a VIF of less than 10 and the tolerance values are not less than 0.1. VIF value greater than 10 and/or tolerance value is less than 0.1 suggest the presence of strong multicollinearity The result from the table reveals that all the value for VIF on the independent variable are less than 2 which is far from the bench mark.

Goodness of Fit Test

The Hosmer and Lemeshow test of the goodness of fit is used to test if the logistic regression model is fit and well specified as one of the assumption of logistic regression. The Hosmer and Lemeshow test of the goodness of fit reveals a chi square of 55.48 and an insignificant P-value of (0.667).The insignificant p-value of the chi-square shows that the goodness of fit for the model is suitable and adequate.

Hausman Test

Due to panel nature of the data, the study ran for fixed and random effect regression models to increase the quality of the statistical inferences as a result of the panel nature of the data. The hausman specification test was carried out to make decision between the fixed and random effect model. The hausman test showed that the value of chi2 is 2.5 and the prob>chi 0.645. The insignificant value as reported by the probability of chi2 indicates that the individual effects are random not fixed in the model.

Likelihood ratio Rho Test and Information Criteria

The study made its choice of model selection based on two information criteria (Akaike information criterion (AIC) and Bayesian information criterion (BIC) for logistic regression and also likelihood ratio rho test for random model. According to (Agresti, 2002) model with the lowest AIC and BIC is the most appropriate for the study. From the appendix B, the pooled logistic regression has an AIC (65.27) and BIC (76.52) while the random effect model has an AIC (65.27) and BIC (80.77). This suggests that the pooled logistic regression is more suitable as it has the lowest AIC and BIC signifying that it is the best parsimonious model. In addition, the likelihood ratio test for random model shows a p-value of 1 which is completely insignificant this indicating that random model is not the best choice and there is no panel effect.

Data Presentation, Analysis and Interpretation

Table 4.4

Pooled Logit regression model

Variables	**COEF**	**STD ERROR**	**Z**	**P-VALUE**
PROF	-5.525	3.324	-1.66	0.097
LEV	.291	1.857	0.16	0.876
ADFT	4.037	1.121	3.60	0.000
FSIZE	71.41	37.87	1.89	0.059
CONST	-19.27	9.85	-1.96	0.050
Pseudo R^2	.354			
LR chi2	30.25			
Log Likelihood	-27.637			

Source: **Regression Result from Output STATA 13**

Interpretation

Logit regression helps to interpret like of a normal distribution. It represent the log transformation of logistic regression. The result of the pooled logit regression in table 4.4 below shows that the likelihood ratio chi-square is 30.25 and is statistically significant at 1% (0.000) showing that the model for the study is fit. Additional it also shows that the variables selected for this study jointly have effect environmental disclosure of listed oil and gas firms in Nigeria. Further, the table shows that the pseudo R2 value is .354 revealing that the determinants variables selected in this study is able to explain the variation in the likelihood of environmental disclosure up to 35.4%, while the remaining is explained by other factors that are not capture in the model.

Hypothesis Testing

$H0_I$: There is no significant relationship between profitability and environmental accounting disclosure on the listed oil and gas firms in Nigeria. The results from the table 4.4 shows that profitability (PROF) has a negative effect on environmental disclosure of listed oil and gas firms in Nigeria, from a p-value of 0.097 which is significant at 10%. Based on this evidence, the study rejects the null hypothesis one (H_{01}) which states that there is no significant relationship between profitability and environmental

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accounting disclosure of listed oil and gas firms in Nigeria.**H0$_2$**: There is no significant relationship between leverage and environmental accounting disclosure on the listed oil and gas firms in Nigeria.

The result from Table 4.4 disclosed that leverage has t-value of 0.16 and a p-value of 0.876 which is not significant at any level of significance. Hence, the study fails to rejects the null hypothesis two (H_{02}) which states that there is no significant relationship between leverage and environmental accounting disclosure of listed oil and gas firms in Nigeria.

H0$_3$: There is no significant relationship between auditor type and environmental accounting disclosure on the listed oil and gas firms in Nigeria.

Further, the results from the table 4.4 reveals that audit firm type determines environmental accounting disclosure evidence from the p-value of 0.000 which significant at 1%. Thus, the study rejects the null hypothesis three (H_{03}) which states that there is no significant relationship between audit firm type and environmental accounting disclosure on the listed oil and gas firms in Nigeria.

H0$_4$: There is no significant relationship between firms' size and environmental accounting disclosure on the listed oil and gas firms in Nigeria. Similarly, the results from the table 4.4 shows that firm size is a determinant of environmental accounting disclosure as reveals by the p-value of 0.059 which significant at 10%. Thus, the study rejects the null hypothesis four (H_{04}) which states that there is no significant relationship between firm size and accounting disclosure on the listed oil and gas firms in Nigeria.

Discussion of Major Findings

Findings from the regression result reveals that three of the independent variables (profitability, audit firm type and firm size) are determinants of environmental accounting disclosure while leverage is the only variable that does not determine the environmental accounting disclosure of listed oil and gas firms in Nigeria.

Profitability and Environmental Accounting Disclosure

The table 4.4 shows that profitability has a coefficient of -5.53 and a p-value OF 0.097 which is significant at 10% which suggest that the firm's profitability has a negative relationship with their likelihood to disclosure environmental information. The coefficient -5.53 suggest that a percentage increase in profitability as measured by return on assets will decreases the probability of the firms disclosing environmental information by 5.53. The findings suggests that less profitable oil and gas firms in Nigeria have the likelihood to disclosure more than higher profitable firms to gain stakeholders acceptance and ensure the investors and creditors of their future concern. On the contrary, more profitability firms may find no need to disclosure environmental information as the higher profit is already a signal to the market of their management efficiency. This is a clear confirmation that in the oil and gas sectors of Nigeria; weaker performances will serve as a propensity of environmental information disclosure. This findings is contrary to legitimacy theory and consistent with the work of Okezie and Ihendinihu (2019), Akbas (2014), Andrikopoulos and Kriklani (2013) and so forth who found and concluded that higher profitable firms are likely not to disclosure environmental information. The findings are contrary to the studies by Abubakar (2017), Ebiringa,et al. (2013) and so forth that discovered that higher profitability firms are more willing to disclose environmental information.

Leverage and Environmental Accounting Disclosure

The table reveals that leverage has a positive coefficient of .291 and a p-value 0f 0.876 which is not significant. This confirms that leverage has positive and insignificant relationship with environmental disclosure of listed oil and gas firms in Nigeria. This positive coefficient indicates that an increase in leverage increases the chance of the firms of firm's environmental disclosure. The insignificant p-value suggests that increase or decrease in leverage does not influence management to carry out an environmental accounting disclosure. This by implication suggests that the level of debt in the firms is not a determining factor influencing environmental information disclosure in the oil and gas firm in Nigeria. This finding is contrary to legitimacy theory and in line with the study by Dibia and Onwuchekwa (2015), Ohidoa et al (2016), Adeniyi and Adebayo (2017) who found that leverage do not influence environmental disclosure and not consistent with Okezie and Ihendinihu (2019), Egbunike and Tarilaye (2017) and so forth who found that leverage influences environmental disclosure.

Audit firm type and Environmental Accounting Disclosure

Further table 4.4 reveals that audit firm type has a positive coefficient of 4.037 and a significant p-value of 0.000 which is significant at 1% level of significance. This suggests that environmental disclosure of oil and gas firms is positively and significantly influence by the type of audit firms they engage in service. It means any year they engage the big 4 rather than other auditors, there are chances the management will disclosure environmental information to a unit of 3.64. Thus, environmental disclosure of firms is much dependent on whether the firm engages the service of a big 4 auditing firms or other auditing firm. This furthers implies that engaging the renowned big 4 firms (Deloitte, KPMG, Ernst and Young and Pricewatercooper) is likely to make managers disclosure environmental information in their annual report. This finding is consistent with the studies by Welbeck et al. (2017), who found that the firms audited by the big 4 tend to disclosure more on environmental information and contrary the studies by Dibia and Onwuchekwa (2015) who found audit firm type do not influence environmental accounting disclosure .

Firm Size and Environmental Accounting Disclosure

The table above showed that the beta value of the firm size is 71.04 and the p-value is 0.059 which is positively significant at 10%. The result indicates that any increase in the size of the firms increases the probability of manager's disclosure of environmental information to 71. This implies that managers of large firms tend to disclose environmental related information than smaller firms. This reveals that firm size is a determinant of environmental accounting disclosure of listed oil and gas firms in

Nigeria. This is in line with our a priori expectation of a likely positive relationship between firms' size and environmental information disclosure. The finding is in line with legitimacy theory and also consistent with Welbeck et al. (2017), Sulaiman et al. (2014), Ohidoa et al. (2016), Egbunike and Tarilaye (2017) , Sahore, and Verma (2017)who found that larger firms have the more motivation to report environmental accounting information. The findings is contrary to Okezie and Ihendinihu (2019), Abubakar (2017) who found that an insignificant relationship between firm size and environmental disclosure.

This study was carried out to examine the determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria. The specifically, the study examine the effect of profitability, leverage, audit firm type and firm size on listed oil and gas firms in Nigeria. In conducting the research, several empirical literatures were reviewed. The legitimacy theory was used to underpin the study. A correlational research design was adopted to examine the determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria. The population of the study consists of all 12 oil and gas firms in Nigeria as at 31st December 2018. Based on certain criteria, the population was adjusted to 10 firms. The panel logistic regression was selected based on AIC and BIC rule for logistic regression and likelihood ratio test of rho for random. The logit regression model result showed that three of the independent variables (profitability, audit firm type and firm size) are significant and therefore they determine the likelihood of environmental accounting disclosure of listed oil and gas firms in Nigeria while leverage is insignificant. Specifically, the study found that profitability has a negative and significant effect on environmental accounting disclosure in Nigeria. Audit firm type and firm size has a significant positive relationship with environmental accounting disclosure of listed oil and gas firms in Nigeria while leverage has positive and insignificant effect on environmental accounting disclosure of listed oil and gas firms in Nigeria.

Conclusion

Based on the findings from the analysis carried out, the study concludes as follows:

Firstly, the study found evidence that profitability has negative effect on environmental accounting disclosure of oil and gas firms. The study concludes that the weaker firms are more likely to disclosure more on environmental information Thus; profitability is a determining factor of environmental accounting disclosure of listed oil and gas firms in Nigeria. Secondly, the study found evidence that leverage has no effect on environmental accounting disclosure of listed oil and gas firms. Thus, the study concludes that leverage does not determine environmental accounting disclosure of listed oil and gas firms in Nigeria. Further, , the study found an evidence to suggest that firms that use more of the big 4 are likely to disclosure environmental accounting information. The study concludes that audit firm type is a determinant of environmental accounting disclosure of listed oil and gas firms in Nigeria. Lastly, the study documented evidence that suggest that larger for has propensity to disclosure environmental accounting information. Hence, the study concludes that the size of the firms is a factor that determines environmental accounting disclosure of listed oil and gas firms in Nigeria.

Recommendations

In line with the findings and the conclusions of this study, the following recommendations were made.

1. That management of profitability firms should re-orient their mindset on environmental accounting disclosure and continue to see environmental disclosure as a necessity for satisfying majority of the stakeholders.
2. The non- big 4 audit firms engaged by some of the oil and gas firms should encourage the management to disclosure environmental information which will boost investors confident and reduce their perception about them.
3. Firm irrespective of their size are recommended to disclose information on environment as a way of improving the company image.

Limitation of the Study

The result of this study is subject to some limitation due to the following factors.

1. This study focused on the determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria without taking into consideration other sector of the economy. The findings and recommendations of this study are only applicable to oil and gas firms in Nigeria.
2. The study focus on environmental accounting disclosure with focus on whether there was a disclosure or not without considering the level of environmental disclosure.

Suggestion for Further Studies

The study examines the determinants of environmental accounting disclosure of listed oil and gas firms in Nigeria. This study suggests that further studies should be carried out to incorporate determinants (variables) not capture in this study. Among this variable includes corporate governance variable and ownership structure variables. Further, the same study can also be carried out in others such sectors in Nigeria such as industrial goods firms, Construction and Real estate, consumer goods and so forth.

REFERENCES

Abubakar, A.A. (2017). Influence of Firms Attributes on Environmental Disclosure in Listed Brewery Companies in Nigeria, *Research Journal of Finance and Accounting,* 8(21), 3135

Adeniyi, S.I & Adebayo, H.O. (2018).Effect of financial leverage on voluntary corporate social disclosure among listed firms on Nigeria Stock Exchange, *Academic Journal of Economic Studies,* Ahdulkadir. M. (2013). Adoption of international reporting standard in developing economy. *International Journal of Business Management*, 7(3), 152-161.

Ali. M Ahmed, K., & Henry, D. (2014). Disclosure compliance with national accounting standards by listed companies in South Asia. *Accounting and Business Research.* 3, 1(3). 183-199.

Alrafadi, K. M. S., Kamaruddin, B. H., & Yusuf, M. M. (2014). Efficiency and Determinants in Libyan Banking. *International Journal of Business and Social Science,* 5(5)

Al-Shamrnari, M., Turen, S., & EI-Seoud, M. S. A. (2014). Measuring relative efficiency of commercial banks in Bahrain using data envelopment analysis. *International Journal Economics, Finance and Management Sciences,* 2(6) 297-305 Retrieve from (http://www.sciencepublishinggl~oup.com/j/ijefm)

Al-Momani, M.A. & Obeidat, M.I. (2017). Towards More Understanding of the Financial Leverage Controversy: The Evidence of the Industrial Firms at Amman Stock Exchange. *International Journal of Economics and Financial Issues,* 7(4), 189-198.

Banerjee. S. B. (2001). Corporate environmental strategies and actions, *Management Decision*, 39 (1)36-44.

Bassey, Effiok & Okon (2013). The impact of environmental accounting and reporting on organizational performance of selected oil and gas companies in Niger Delta region of Nigeria. Retrieved from www.iiste.org

Beck, C. (2003). Nursing Research Methods: Principles and Methods, 7th Edition. Lippincott Williams and Wilkins.

Beredugo. S. & Mefor, 1. (2012). The Impact of Environmental Accounting and Reporting on Sustainable Development in Nigeria. *Research Journal of Finance and Accounting*. 3(7). 56 - 63.

Cho, C., & Patten, D. (2007). The role of environmental disclosure as legitimacy tools:*A research note. Accounting organizations and society,* 32(7).

Chen, K.; Lin L. K. & Zhou, J. (2005). Audit Quality and Earnings Management for Taiwan IPO Firms", *Managerial Accounting Journal*, . 20(1), 86-104.

Clarkson. Roo Li. Y., Richardson, G., & Vasvari, F. (2008). Revisiting the relation between environmental performance and environmental disclosure: an empirical analysis. *Accounting, Organizations and Society,* 33(4/5), 303-327.

Cormier. D. & Magnan, M. (1997). Investors' assessment of implicit environmental liabilities.*Journal of Accounting, Auditing and Finance*, 16(2), 215-241.

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), 145-15

Enekwe, C.I., Agu, C.I. & Eziedo, (2014), The Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria, *IOSR Journal of Economics and Finance 5(3).*

Eriki, P. O. & Osagie, O. (2014). Performance Efficiency of Selected Quoted Commercial Banks in Nigeria: A DEA Approach. *International Journal of Economics, Commerce and Management United Kingdom,* 2(9), 1 retrieve from http://ijecm.co.uk.

Ebiringa, O.T., Yadirichukwu, E. Chigbu, E.E. & Ogochukwu, O.J. (2013). Effect of Firm Size and Profitability on Corporate Social Disclosures: The Nigerian Oil and Gas sector in Focus. *British Journal of Economics, Management & Trade 3(4): 563-574, 2013*

Egbunike, A.P. & Tarilaye,N. (2017). Firm's specific attributes and voluntary environmental disclosure in Nigeria: Evidence from listed manufacturing companies, *Academy of Accounting and Financial Studies Journal* 21(3), 145-

Friedman. A. L. & Miles, S. (2006). *Stakeholders*: Theory and Practice, Oxford: Oxford University Press.

Freedman. M., & Stagliano, M. J. (2013). European unification, accounting harmonization, and Social disclosure,

Godfrey, J., Hodgson, A., Tarca, A., Hamilton, J., & Holmes, S. (2010). *Accounting Theory*, Milton, Qld John Wiley.

Gray, R., Owen D., & Adams, C. (1996), *Accounting and Accountability,* Europe, Great Britain Prentice Hall.

Healy. P. & Palepu. K. (2011). Effectiveness of accounting-based dividend covenants. *Journal of Accounting and Economics* 12(1-3), 97-124.

Hermanson, Roger H., James Don Edwards, and R.F.Salmonson, eds. 1989. Accounting Principles. Boston: BPI/IRWIN

Hifza, M. (2011). Determinants of Insurance Companies Profitability: An Analysis of Insurance Sector of Pakistan. *Academic Research International*, 1(3) [Online].Available at:www.Journals.Savap.Org.Pk

Holt, D. (2012). The Journey of a Green Micro Enterprise the Green Planet. *Corporate Social Responsibility and Environmental Management,* 19(2), 90-101.

Isabel, S., & Mariela, 1. (2009). Implementation of IFRS for non- financial companies and its impact on financial stability and monitoring at the Central Bank of Chile, *Central Bank of Chile, SDFP*, pp. 1-26.

Jariya, A.M.I. (2015). Determinants of environmental disclosure in annual reports of Sri Lankan listed manufacturing companies, *Journal of Management***,** 12(1), 99-112

Jaroslava, H., & Miroslav, H. (2006). Environmental accounting: an important part of an information system in the conditions when the companies approach to the environmental influences its prosperity. *Vadyba/management*, 3(12),22- 31

James, B (1998). The Benefits of Improved Environmental Accounting: An Economic Framework to Identify Priorities Resources for the future Washington, DC, 13 - 15.

Jensen. M. & Meckling, W. (1976). Can the corporation service? *Financial analysts Journal*, 34(1). 31-35.

Joshi. P. Suwaidan, M. & Kumar, R. (20 II). Determinants of Environmental Disclosures by Indian Industrial Listed Companies in Their Websites: Empirical Study. I*nternational Journal of Accounting and Finance*. 3(2). 109-\30.

Keramati. M. A., & Shaeri, M. (2014). Assessment of Credit Risk Management and Managerial Efficiency of Banks Using Data Envelopment Analysis (DEA) Network. *Biological Forum an International Journal*, 6(2), 320-328.

Karirnzadeh, M. (2012). Efficiency Analysis by using Data Envelop Analysis Model: Evidence from Indian Banks. *Int. J Latest Trends Fin. Eco. Sc*. 2(3).

Kennon,J. (2018) Return on Equity (ROE) and Income Statement Analysis Investing Lesson 4 - Analyzing an Income Statement.*The balance* https://www.thebalance.com/return-on-equity-roe-357601. Accessed on April 21, 2019

Kothari. C. (2004). *Research Methodology*: Methods and Techniques, (2nd ed). New Delhi. India: New age International Publishers.

Kundu, A. & Hauff, V. (2009). Green Accounting Methodology for India and Its States, eds Environmental. *Green India States Trust*, 6, 23-42.

Lavrakas, P. (2008). *Encyclopedia of Survey Research Methods*, (Vol. 1 & 2, p. 146). LosAngeles Sage Publications.

Lumby, S. & Jones, C. (2011). Corporate finance theory and Practice. Cengaged Learning USA

McMillan, J., & Schumacher, S. (20 I 0). *Research in Education: Evidence-based inquiry*. Boston Pearson.

Mitchell. R ..Agle. B ..& Wood, D. (2000),Toward a Theory of Stakeholder Identification and Salience, *Academy of Management*, Review, 22(4), 853-886.

Mgbame. C. O. (2012). Environmental accounting audit in selected companies in Nigeria (Unpublished Ph.D. thesis submitted to the University of Benin).

Mohamed. T..& Faouzi, P. J. (2014). Does Corporate Environmental Disclosure Affect the Cost of Capital, Evidence from Tunisian Companies. *Global Journal of Management and Business Research*, J 4(1).

Mugenda, O. M., & Mugenda, A. G. (2008). *Research Methods*: Quantitative and Qualitative Approaches. Nairobi: Acts Press.

Muttaqien, I.A. (2018). *The determinants of environmental disclosures in Thailand*, Bachelor Thesis, Universitas Islam Indonesia

Ogborna, R:,&Iyoha, F. (2006). Compliance with accounting standards by quoted insurance companies in Nigeria. *An empirical investigation. Journal of Education*, 7(2), 18-27.

Ong, T. S., Lim, Y. T., & Teh, B. (2011). A Comparison on Efficiency of Domestic and Foreign Banks in Malaysia: A DEA Approach. *Business Management Dynamics*, 1(4), 33-49, Retrieve from www.bmdynamics.com.

Ohidoa , T., Omokhudu ,O.O. & Oserogho, I.A.F. (2016) . Determinants of environmental disclosure. *International Journal of Advanced Academic Research*, 8(2), 49

Okezie, S.O. & Ihendinihu, J. U. (2019). Determinants of Corporate Social Responsibility Disclosure Practices: An Empirical study of Nigerian Listed Firms , *Covenant Journal of Business & Social Sciences (CJBSS)*,10(1)

Okorie. M. C. & Agu, D. O. (2015). Does Banking Sector Reform Buy Efficiency of Banking Sector Operations? Evidence from Recent Nigeria's Banking Sector Reforms. *Asian Economic and Financial Review*. 5(2) 264-278, Retrieve from http://www.aessweb .com/journals/002.

Parker, L. D. (1997). Accounting for environmental strategy. Cost management, control and performance evaluation. *Asia-Pacific Journal of Accounting*, 4(2), 145-174.

Pellegrino, C., & Lodhia, S. (2012). Climate Change Accounting and the Australian Mining Industry Exploring the links between corporate disclosure and the generation of legitimacy. *Journal ofCleaner Production*. 36, 68-82.

Pramanik. A.Shil,O. & Das, A. (2007). *Environmental accounting and reporting*.New Deep publication PVT. Ltd.

Rahman, A. (1999), *Environmental Economics, Valuation and Green Accounting Approaches in the Context of Bangladesh*- an Overview, in Q. K. Ahmed et at. (eds). 1999. Environmental Economics in Bangladesh. Dhaka IUCN

Rahim, R. A. (2015). Ranking of Malaysian Commercial Banks: Super-Efficiency Data Envelopment Analysis (DEA) Approach. *Asian Academy ofManagement Journal ofAccounting and Finance*, 2(1), 123-143.

Seetharaman. A; Mohamed, I & Saravanan, A.S (2007). Environmental Accounting as a tool for Environmental management system. *Journal of Applied Science, Environment and Management*, 2(2), 137- 145

Shen. H. & Huang. H. (2010). *An Analysis of Environmental Disclosures of Listed Companies in China*

Sivathaasan , N., Tharanika, R., Sinthuja, M. & Hanitha, V. (2013). Factors determining Profitability: A Study of Selected Manufacturing Companies listed on Colombo Stock Exchange in Sri Lanka. *European Journal of Business and Management*, 5(27),99-107

UNIDO (2002): *Corporate Social Responsibility: Implications for Small and Medium Enterprises in Developing Countries.* Vienna, October.

United Nations Conference on Trade and Development (2012). *Review of maritime transport*, New York: UNCTAD.

U. S. Environmental Protection Agency. (1995). *Environmental Accounting Case Studies*: Green Accounting at AT&T, Washington D.C. USEPA.

U.S. Environmental Protection Agency. (1 995b).*An Introduction to Environmental Accounting as a Business Tool: Key Concepts and Terms*, Washington, D.C. USEPA.

Uwuigbe, U., & Olayinka, M. (2011). Corporate Social and Environmental Disclosure in Nigeria: A Comparative Study of the Building Material and Brewery Industry. *International Journal of Business and Management*, 6(2),258.

Uwuigbe , U. (2012). *Web-Based Corporate Environmental Reporting in Nigeria: A Study of Listed Companies. Informatics Economics*, 16 (3), 27.

Velez, I. (2010), Financial and Ratio Analysis, Lecture, Universidad, Technological de Bolivar. Available from: http://www.ssrn.com/ abstract=163827

Welbeck,E., Owusu,G.M.Y., Bekoe, R.B. & Kusi, J.A. (2017). Determinants of environmental disclosures of listed firms in Ghana international *Journal of Corporate Social Responsibility* 2:11 DOI 10.1186/s40991-017-0023

Woodward, D. & T. Woodward (2011).*The casefor a political economy of accounting: A critique of the arguments*, Conference Proceedings, British Accounting Association Conference, Nottingham, March.