ENVIRONMENTAL DISCLOSURE PRACTICES IN ANNUAL REPORTS OF LISTED MANUFACTURING FIRMS IN NIGERIA

By Professor Adewale Alawiye-Adams (08033900620)

Afe Babalola University Ado-Ekiti

e-mail:- adedams_intservices@yahoo.com

and

Akomolafe Adesola Busola (08168493775)

Afe Babalola University Ado-Ekiti

email:- akomolafe.adesola@yahoo.com

ABSTRACT

This study examined the inadequacies of corporate environmental disclosures both in quantity and quality amongst manufacturing firms in Nigeria. In order to achieve an in-depth study and wider coverage of the subject-matter; secondary data were obtained from the annual reports of fourteen (14) manufacturing firms. The annual reports were examined for a period of six years (2010 to 2015). The companies were selected based on judgement or purposive sampling. Interpretative content analysis was used to elicit information from the annual reports. The study revealed that corporate environmental disclosure is still at its lowest ebb amongst manufacturing firms in Nigeria and there will be a need for sensitization, regulatory compulsion or government intervention for companies to participate in corporate environmental disclosure. The obvious benefit of this will include the opportunity to resolve issues concerning climate change; particularly dimensions of global warming.

Keywords: Corporate Environmental Disclosure, Climate Change, Global Warming, Manufacturing Firms, Annual Reports, Nigeria.

- **INTRODUCTION**

Activities of business organisations such as environmental pollution and unsustainable use of natural resources cause increase in the emission of greenhouse gases. This consequently results in depletion of the ozone layer and global warming. As a result, the role of companies in addressing environmental and sustainability issues is deemed very vital (Damian,2006). In the past, companies paid very little attention to the environmental degradation caused by their activities. However, we are in a new era of sustainability where most people now recognize the importance of preserving clean air and clean water; customers are willing to pay more for products whose processes are environmental friendly and investors place very high values on environmental responsibility. (Uwuigbe, 2011; Xiaoping, 2003)

This development gave rise to the environmental accounting movement. And it has in the most recent past been coherently argued that there is a moral cause for businesses not only to report on financial matters but also to report on their impact on the social and natural environment so as to demonstrate responsiveness to all sources of concerns from various stakeholders (Association of Chartered Certified Accountants (ACCA), 2012). **Corporate environmental disclosure simply refers to self-reporting of firms' environmental impact information to stakeholders**. The communication of this information is done in a variety of different forms and mediums such as the annual reports, stand-alone environmental reports, pamphlets, documentaries, brochures etc. (Gray and Bebbington,2001)

Environmental accounting, audit and disclosure enable an organization to demonstrate its responsiveness to all sources of concern from stakeholders. Thus, it can be concluded that accountants have a role to play in ensuring sustainability and quality business practices in organizations. This is because accountants play the role of finance managers, auditors, management accountants and risk management consultants in various facets of the economy. This means that accountants are placed in a position of influence because they are involved in both external and internal reporting as well as organizational decision making. Reliable information is required in making decisions concerning trading, compliance and potential penalties and accountants play a role in the recognition, measurement and reporting of Greenhouse Gas emissions and other wastes. More so, it is pertinent to be aware of relevant environmental regulations and prohibitions as well as financial effects of environmental liabilities because accountants may find themselves in a position where they have to furnish regulatory authorities with required information disclosed in the financial statements (Damian, 2006).

Despite the heightened interest and pressure from stakeholders; corporate environmental reporting is still at its lowest ebb in Nigeria when compared with counterpart countries. Poor environmental disclosure practices in manufacturing firms are highly common and the environmental annual reports are incapable of meeting the heterogeneous demands of stakeholders.

The main objective of this study is to provide an account of the current state of corporate environmental disclosure practices in Nigerian manufacturing firms. The main question has been designed as follows: What are the overall quantity and quality of corporate environmental disclosures in manufacturing firms in Nigeria? In order to achieve the objectives of the study, the following research hypothesis is stated in its null form:

H_0: Environmental information disclosure of manufacturing firms do not satisfy the heterogeneous expectations of stakeholders

The remainder of this article is structured as follows; section two reviews the theory and empirical evidences on corporate environmental disclosures, the third section describes the research method, the findings are discussed in section four and section five concludes with policy recommendations.

- **REVIEW OF RELATED LITERATURE**

- **DEFINITIONS OF CORPORATE ENVIRONMENTAL DISCLOSURE**

Parker (1992) defines disclosure as the reporting of information (both financial and non-financial) to users of accounting reports, especially to investors; disclosure can either be voluntary or be mandated by the laws of the state. According to Cooke (1992), disclosure in financial statements consists of both voluntary and mandatory items of information provided in the financial statements, notes to the accounts, management's analysis of operations for the current and forthcoming year and any supplementary information.

Corporate disclosure is a very broad term which goes beyond reporting only financial information (AbdulRahman, 1998). Corporate social and environmental disclosure emerges from a variety of sources (Setyorini & Ishak, 2012) and environmental information have appeared to be part of annual corporate reports since the 1980s (Xi Zhao & Lions, 2011). Corporate environmental reporting is the process of communicating the environmental effects of organizations operational and economic functions to particular interest groups within the society and to the society at large (Gray, Khouy & Lavers, 1995). It is a public relations vehicle whose aim is to influence people's perception of the company and hence influence corporate image and reputation (Elkington, 1997). It is also known as an essential ingredient of corporate social responsibility reporting (Deegan, 2007); it is an environmental strategy to communicate with stakeholders (Setyorini & Ishak, 2012). It has been best described as a tool to spur corporate policies, strategies and management systems geared towards minimizing adverse environmental impact (SustainAbility/ United Nations Environmental Programme (UNEP), 1998).

According to Jenkins & Yakovleva, (2006), some approaches for disclosing social and environmental information include: annual reports, stand-alone environmental reports, community reports, websites, and press releases, extra supporting documents for annual reports, video-taped documentary, advertisements, published articles and booklets regarding corporate environmental activities. The information contained there-in have wider environmental information such as matters relating to employment and employees, relationships with local and regional communities, consumer and customer issues and environmental issues, energy usage, corporate governance, health and safety, etc. (Gray & Bebbington, 2001).

- **TYPES OF CORPORATE ENVIRONMENTAL DISCLOSURE**

There are two primary forms of environmental reporting as identified by Deloitte Touche Tohmatsu International (1993). They are mandatory and voluntary environmental reporting. Mandatory Environmental Disclosure is disclosure about a company's environmental activities that is required by law while voluntary environmental reporting involves the disclosure of a company's environmental information on a voluntary basis. According to Gray & Bebbington (1993), motives for voluntary disclosure can be attributed to the culture of the corporation, the firm size, the industry in which the firm operates, the need to legitimize current activities, to forestall disclosure by other parties, political benefits, competitive advantage etc. while barriers to voluntary environmental disclosure can be attributed to the high cost of reporting, lack of data availability, lack of legal requirement to disclose, secrecy etc.

- **THEORETICAL FRAMEWORK**

- **LEGITIMACY THEORY**

The theoretical perspective provided by legitimacy theory assumes that there is a relationship between an organisation and the society in which it operates (Chang, 2007). It is a well-known fact that organisations consume the society's resources and the society evaluates them on the usefulness and legitimacy of their operations. Pfeffer and Salancik (1978) argued that legitimacy is conferred when stakeholders (both internal and external audience affected by organizational outcomes) endorse and supports an organisation's goals and activities. Therefore, to be perceived as legitimate, an organisation has to undertake actions or activities that are congruent with acceptable social norms and values.

The reporting of environmental information could be used to demonstrate that an organisation is acting responsibly with the implicit objective of influencing the public or community (Chang, 2007). According to Deegan, Rankin & Tobin (2002), the disclosures might be made to show that the organisation is conforming to community expectations, or alternatively, they might be made to alter societal expectations.

Legitimacy theory suggests that whenever managers consider that the supply of particular resource or information is crucial to organisational survival, then they will pursue strategies to ensure the continued supply of that information to gain or maintain legitimacy (Deegan 2002).

- **POLITICAL ECONOMY THEORY**

According to Gray, Owen & Adams (1996) "political economy" refers to the social, political and economic framework within which human life takes place. While considering a broader socio-political perspective, it has been used in accounting literature to explain corporate and social environmental disclosure practices (Deegan & Unerman, 2006)

Guthrie and Parker (1990) view accounting reports as instruments for constructing, sustaining, and legitimizing political and economic arrangements in a manner that will be of benefit to the organisation's self –interest. In other words, corporate disclosures have the capacity to not only communicate economic performances but also social and political performances such that the report will meet the expectations of multi-stakeholders (AbuRaya, 2012). Political economy suggests that corporate environmental disclosure is a proactive device or measure put in place by management to mediate, suppress, mystify and prevent social conflict from occurring.

The political economy theory does not solely focus on the self-interest of firms and wealth maximization, rather it considers the political, social and institutional framework with which the organisation operates (Gray, Khouy & Lavers, 1995). Power conflict, power inequality and governmental role lies at the heart of the structure of the society and thisshapes all that goes within it (Cooper & Sherer, 1984). Belkaoui (1985) argues that the political environment affects the development of accounting practices in an indirect way in form of government influences and national culture.

With respect to the above discussion, it can be suggested that the motivation for voluntary environmental disclosure is for self-interest; to foster, sustain and legitimize relationships by portraying an impression of being socially responsible and second to avoid government intervention (AbuRaya, 2012).

- **REVIEW OF EMPIRICAL FINDINGS**

In this study, the researchers have attempted to categorize the extent of corporate environmental reporting under the following heads:

- ***The Quantity of Corporate Environmental Disclosure (Content Analysis and Disclosure Medium)***

Corporate annual reports of firms contain both financial and non-financial information. Financial information can be easily interpreted with the use of financial ratios while non-financial information can be interpreted with the use of a research tool known as “Content Analysis”.

This analytical tool has been employed and has yielded fruitful results in a wide variety of research applications pertaining to corporate environmental disclosure (Ingram & Frazier, 1980; Wiseman, 1982; Freedman & Wasley, 1990; Deegan, Rankin & Voght, 2000; Hughes, Anderson & Golden,2001; Al-Tuwaijri, Christensen & Hughes, 2004; Clarskon, Li, Richardson & Vasvari, 2006; Uwuigbe, 2011; Uwuigbe, 2012; Oba & Fodio, 2012; Jumhani, 2014, Akinlo & Iredele 2014).

According to Krippendorf (1980), content analysis is a research technique that is used for making replicable and valid inferences from data to their context; it is a research tool that is used for contextualized interpretation of documents. The interpretation of text data to their context involves the systematic coding and identification of themes or patterns (Hsieh & Shannon, 2005). According to Myaring (2000), the analysis and interpretation follows a set of rules and step by step models such that rash quantifications are not made.

The definition above hereby suggests that content analysis places importance on non-financial information; speeches, texts and their specific context (Zhang &Wildermuth, 2009).

The amount of information can be measured per category or per company by counting the data items i.e. the number of words, the number of sentences and the number of pages (Hassan & Marston, 2010). Content analysis can be computer aided or human coded with the latter having the advantage that it permits the quantitative assessment of achieved reliability (Beattie, Mcinnes & Fearnley, 2004).

Considering social information disclosure measure, most studies analysed the annual reports, stand-alone reports, social responsibility report or the company's website as a source of social information disclosure (see table 1)

Table 1: The Prevalence of Content Analysis in Corporate Social and Environmental Research and the Source of Information Disclosure Measure

Authors, (Year)	**Measure of the quantity of information disclosure**	**Source of information disclosure measure**
Ingram and Frazier (1980)	Content Analysis	Annual reports
Wiseman (1982)	Content Analysis	Annual Reports
Freedman and Wasley (1990)	Content Analysis	Annual reports and 10 K environmental reports
Bewley and Li (2000)	Content Analysis	Annual reports

Patten (2002)	Content analysis	Annual reports
Al-Tuwaijri, Christensen and Hughes (2004)	Content analysis	Annual reports
Uwuigbe (2012)	Content analysis	Web-based Environmental Reports
Galani, Gravas and Stavropoulous (2011)	Content analysis	Annual Reports
Stagliano and Walden (1998)	Content Analysis	Annual reports
Saleh (2009)	Content Analysis	Annual Reports
Clarkson, Li, Richardson, Vasvari (2008)	Content analysis	Social and Environmental reports.
Asaolu, Agboola, Ayoola and Slawu (2011)	Content Analysis	Annual reports, sustainability reports and triple bottom line reports
Eljayash (2015)	Content Analysis	Annual reports
Akrout and Othman (2013)	Content analysis	Web-based environmental reports
Bassey, Effiok and Eton (2014)	Content Analysis	Web-based environmental reports an annual reports
Akinlo & Iredele, 2014	Content Analysis	Annual reports.
Mohamad, Salleh, Ismail and Chek (2014)	Content Analysis	Annual reports.
Oba and Fodio (2012)	Content Analysis	Annual Reports
Jumhani (2014)	Content Analysis	Web-based environmental reports
Ebiringa, Yadirichukwu, Chigbu and Ogochukwu (2013)	Content Analysis	Annual Reports.
Ajibolade and Uwuigbe (201	Content Analysis	Annual Reports
Eltaib (2012)	Content Analysis	Annual reports and stand-alone sustainability reports
Onyali, Okafor and Egolum (2014)	Content Analysis	Annual Reports

- ***The Content and Quality of Corporate Environmental Disclosure (Environmental Disclosure Index)***

The quality of environmental disclosure is often difficult to measure and it remains an area of controversy in academic literature. The major difficulty lies in the fact that there is no generally accepted measurement of disclosure quality. Several academic literatures have measured disclosure quality on the basis of how the researcher deems fit and the purpose of the study.

Wiseman (1982) examined the extent of voluntary environmental disclosures made by corporations in their annual reports. This study used a research design similar to Ingram and Frazier (1980). However, Ingram and Frazier (1980) were concerned with the lack of corporate social responsibility disclosures in annual reports due to their voluntary nature. Wiseman designed an environmental disclosure index covering 18 items in four categories: economic factors (5 items), environmental litigation (2 items), pollution abatement (5 items) and environmental disclosures that do not fall into the other three (6 items). In addition, Wiseman assigned a score to each item based on whether the disclosure is quantitative or qualitative (3 for quantitative disclosure, 2 for non-quantitative disclosure and 1 for mentioning in general terms and 0 for no disclosure).

Many corporate environmental disclosure studies since then relies on the Wiseman index in order to measure the extent or quality of environmental disclosure (Clarkson *et al*, 2008).

Freedman and Wasley (1990) examined the relationship between corporate pollution performance and pollution disclosures made in annual reports and 10-K reports filed with the Securities and Exchange Commission. Their sample consists of 50 US companies in four industries (Steel, Oil, Pulp and Paper, Electric Utilities). The authors measure environmental disclosures in both annual and 10-K reports using the same indexing procedure developed by Wiseman (1982).

Bewley and Li (2000) examine factors associated with environmental disclosures in Canada from a voluntary disclosure theory perspective. The authors measure environmental disclosures by 188 Canadian manufacturing firms in their 1993 annual reports using the Wiseman index.

Hughes *et al* (2001) also used a slightly modified Wiseman index to measure environmental disclosures made within the President's letter and note section and then assess whether environmental disclosures are consistent with environmental performance ratings. Patten (2002) also used a modified Wiseman index measure and line count of environmental disclosures in 1990 annual reports of 131 United States firms from 24 different industries.

Al-Tuwaijri *et al* (2004) explore the relations among environmental disclosure, environmental performance and economic performance using a simultaneous equations approach. The authors measure environmental disclosure using a content analysis in four categories (potential responsible parties' designation, toxic waste, oil and chemical spills, and environmental fines and penalties). Saleh (2009) adopted a similar disclosure scoring method as Al-Tuwaijri *et al* (2004). However, items selected for inclusion were based on their relevance to the Malaysian context. The indicators were (1) Employee relations; (2) Environment; (3) Community involvement and (4) Product. Al-Tuwaijri *et al* (2004) proposed that the quality of disclosure may be measured by denoting weights to different disclosure items. These are based on the perceived importance of each item to various user categories, which also marks the greatest weight '3'for quantitative disclosures related to the four CSR indicators or categories. Marking the next highest weight '2' for non-quantitative but specific information related to these indicators. Lastly, common qualitative disclosures receive the lowest weight '1'. Firms that do not disclose any information for the given indicators receive a zero score.

Eljayash (2015) also adopted the disclosure-quality measurement methodology proposed by Al-Tuwaijri *et al* (2004). This study assigned the greatest weight (3) to monetary disclosures related to the environmental items, and assigned the next highest weight (2) to quantitative; general disclosure received the lowest weight (1) while firms that do not disclose information for a given indicator receive a score of zero for that item.

Uwuigbe (2012) examined the utilization of the internet for communicating corporate environmental information to stakeholders by listed financial and non-financial firms in Nigeria. Environmental disclosure was measured using a content analysis in four (4) categories (Environment, Energy, Research and Development and Employee Health and Safety). A dichotomous procedure known as the Kinder Lydenberg Domini (KLD) social environmental performance rating system was used to measure the total reporting score. A score of one (1) was awarded if an item was reported; otherwise a score of zero (0) was awarded. Consequently, a firm could score a minimum of 0 and a maximum of twenty (20).

Galani, Gravas and Stravropoulous (2011) investigate the level of environmental reporting in corporate annual reports in Greece. A disclosure index was constructed which consists of 15 items of information, in order to identify factors that may have a significant influence on the disclosure level of environmental information by Greek companies. A dichotomous approach to scoring the items was adopted, in which an item scores one if disclosed and zero if not disclosed. This procedure is conventionally termed the un-weighted approach.

Stagliano and Walden (1998) measured the quality of disclosure using a four element quality index with a maximum of six points for each specific theme occurrence and a disclosure score which represents the summation of the quality index for each specific theme category.

Walden and Schwartz (1997) designed a four-element index to measure the quality of environmental disclosure in annual reports. The quality assessments are: (1) Effect – Significant or not significant; (2) Quantification – monetary or non-monetary information; (3) Specificity – specific as to actions, persons, events, or places, or not specific; and (4) Time frame – past, present or future. Significant effects were based on location within annual report, where disclosure found in the letter to shareholders and financial sections were deemed significant. The remaining three elements of disclosure were judged based on the presence or absence of each type of disclosure and the degree of specificity for each environmental disclosure theme. Each element of index which was present in the disclosure received one point. If the disclosure involved the future or the disclosure was monetary, it received two points for each. If the disclosure involved the current reporting period, it received one point. No points were given if the disclosure involved the past or the element was not present. Therefore, each environmental disclosure could receive a maximum of six points based on the four-element index for quality assessment.

Clarkson, Li, Richardson & Vasvari (2008) conducted a study to explore the relationship between environmental disclosure and environmental performance. The study developed a content analysis index based on the Global Reporting Initiative (GRI) Sustainability Reporting guidelines to assess the extent of discretionary disclosures in environmental and social responsibility reports.

Asaolu *et al* (2011) assessed the current level of sustainability in line with international best practices. The study examined the reports of six multi-national oil and gas companies in Nigeria. The Global Reporting Initiative (GRI) guidelines and the International Petroleum Industry Environmental Conservation Association (IPIECA) oil and gas industry guidance on voluntary sustainability reporting served as a basis for measuring the quality of environmental disclosure of Multi-national oil and gas firms in Nigeria.

Table 2: A Summary of Selected Empirical Studies on Environmental Disclosure Quality Measurement

Authors, (Year)	**Type of Disclosure**	**Measurement of Disclosure**

		Quality
Wiseman (1982)	Environmental disclosures	Researcher-constructed disclosure index
Freedman and Wasley (1990)	Environmental disclosures	Adjusted Wiseman index
Walden and Schwartz (1997)	Environmental disclosures	Researcher–constructed disclosure index
Walden and Stagliano (1998)	Environmental disclosures	Researcher-constructed index
Bewley and Li (2000)	Environmental disclosure	Adjusted Wiseman Index
Hughes *et al* (2001)	General disclosure	Adjusted or modified Wiseman index
Patten (2002)	Environmental disclosure	Adjusted Wiseman index
Al-Tuwaijri *et al* (2004)	Environmental disclosure	Researcher-constructed index
Clarkson, Li, Richardson and Vasvari (2006)	Environmental disclosure	Global Reporting Initiative (GRI) index
Saleh (2009)	Environmental disclosure	Researcher-constructed index
Galani *et al* (2011)	Environmental disclosure	Researcher-constructed index
Asaolu et al (2011)	Environmental, sustainability and triple bottom reporting	Global reporting initiative (GRI) index and International Petroleum Industry Environmental Conservation Association (IPIECA) index
Uwuigbe (2012)	Environmental and social responsibility reports	Kinder Lydenberg Domini (KLD) performance rating system
Eljayash (2015)	Environmental disclosure	Researchers constructed index

- **RESEARCH METHODOLOGY**

To analyse the quantity and quality of environmental disclosure themes in consumer and industrial goods producing firms, this study adopted the use secondary data collection (publicly available corporate annual reports). Content analysis was used in analysing the content of corporate annual reports of the selected firms over a period of six (6) years (from 2010 to 2015). According to Krippendorff (1980, 2004) content analysis is a research technique that is used for making replicable and valid inferences from data to their context; it is a research tool that is used for contextualized interpretation of documents. This method is one of the most systematic, objective and quantitative methods of data analysis technique employed in other prior research studies involving corporate environmental disclosures practices (Ingram & Frazier, 1980; Wiseman, 1982; Freedman & Wasley, 1990; Deegan, Rankin & Voght, 2000; Clarkson, Li, Richardson & Vasvari,2006).

In order to obtain the advantage of an in-depth study and effective coverage, sample from secondary data were obtained from the annual reports of fourteen (14) public listed companies; seven (7) consumer goods and seven (7) industrial goods producing firms. The annual reports of the sample companies were examined for a period of six (6) years (from 2010 to 2015). This period was chosen because increased awareness of corporate environmental disclosures was noticed. The companies are selected based on judgement sampling (a non-probability sampling technique). The sample companies consist of both high profile and low profile companies representing several industries with different levels of environmental sensitivity. The sample companies are active in the following major industries: food and beverage industry brewing industry, personal/household products industry, building materials industry, chemical and paints industry and packaging containers industry. The sample collection is based on the following criteria (1) companies that are located in Lagos and Ogun States (this is because of the dense population and the growth of industrial activities in these locations); (2) availability of annual reports from 2010 to 2015; (3) the nature in which the companies pollute the environment; (4) the nature of production; (5) types of raw materials used and (6) toxicity of wastes. Thus, the total sample number of annual reports is 84 for this study.

The analyses were in two stages; first, the volume or quantity of environmental disclosure was measured by counting the number of words in the environmental report published annually. This step however had its flaws because counting of words did not convey any meaning or provide a basis for coding corporate environmental disclosure. In the second step, the extent or quality of environmental disclosure was measured using ratings from environmental disclosure variables or index. Annual reports were studied in detail and analysed using the checklist as shown in appendix 1.

A procedure known as the Kinder Lynderberg Domini (KLD) social environmental performance rating system was used to measure the total reporting score. A score of one (1) was awarded if an item was reported while a score of zero (0) was awarded if an item was not disclosed. The formula for computing the total reporting score is as follows:

$$\mathbf{TRS} = \sum_{I=1}^{22} \mathbf{di}$$

Where:

TRS = Total Reporting Score

di = 1, if the item di is disclosed and 0 if the item di is not disclosed or reported

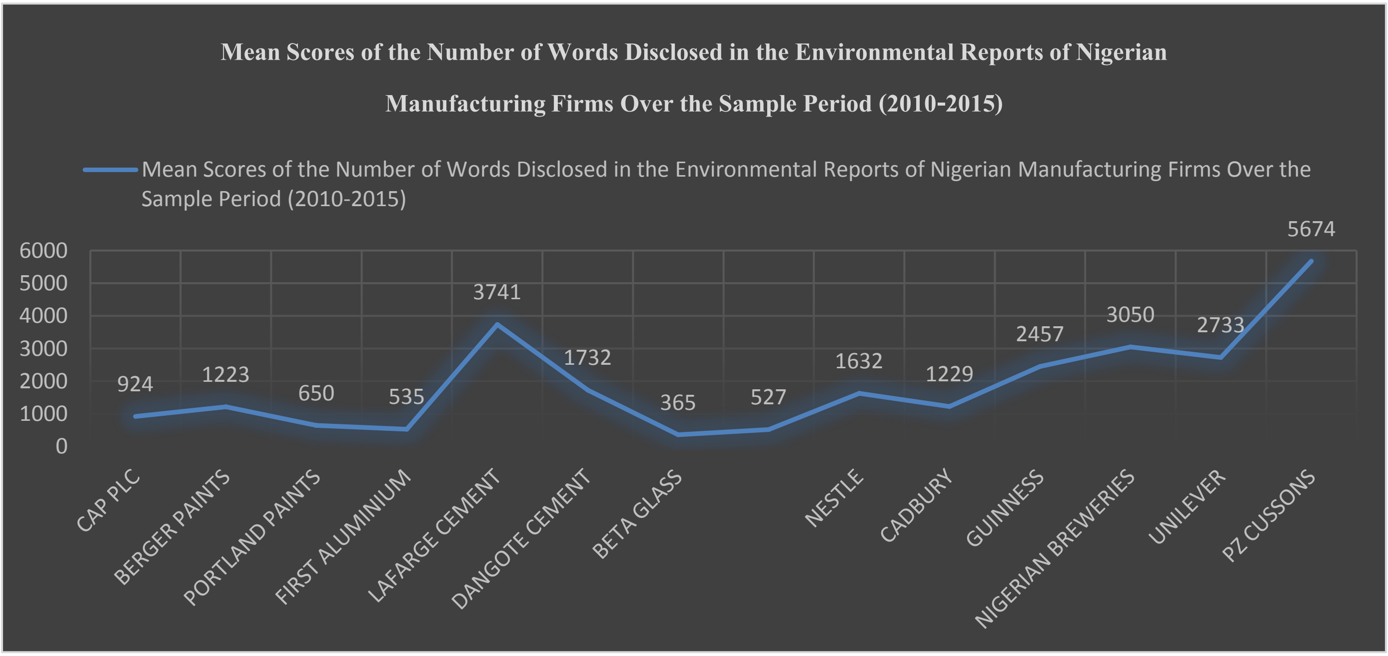
i = 1, 2, 3........22

- **RESULTS**

- **Trend of Corporate Environmental Disclosure Quantity in Nigerian Manufacturing Firms**

Manufacturing companies in Nigeria disclosed environmental information in annual reports in textual forms. The table below shows that on an average, the number of words disclosed in annual reports are within the range of 365 words to 5,674 words with Beta Glass having the least score and PZ Cussons having the highest mean score. The volume of disclosure is fairly above average.

Table 1: **Mean Scores of the Number of Words Disclosed in the Environmental Reports of Nigerian Manufacturing Firms**



- **Trend of Corporate Environmental Disclosure Quality in Nigerian Manufacturing Firms**

The figure below represents the total disclosure score for each company as calculated from year 2010 to 2015. Out of 132 expected disclosure score, PZ Cussons has the highest score of 104, Nigerian Breweries disclosed 101 items in its annual reports; Guinness and Nestle both have disclosure score of 84 each; Unilever disclosed 78 items, Cadbury disclosed 72 items over the sample period while Seven up Bottling Company disclosed 36 items. For manufacturing firms that produce industrial goods; Berger paints had the highest disclosure (84 items) while Dangote Cement had the least disclosure (24 items). Lafarge Cement made disclosure of 80 items; CAP Plc disclosed 54 items; First Aluminium Disclosed 46 items out of 132; Portland paints disclosed 42 items in her annual reports and Beta Glass disclosed 30 items.

Figure 2: Total Environmental Disclosure Quality Scores of Selected Nigerian Manufacturing Firms over the Sample Period (2010 to 2015)

- **Test of Hypothesis**

Table 1
T-Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Total Disclosure	14	65.9286	25.98362	6.94441
Source: *Computed from Annual Reports*				

Table 2
T-test

	Test Value = 132				95% Confidence Interval of the Difference	
	t- cal	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Total disclosures by companies	-9.514	13	.000	-66.07143	-81.0739	-51.0689
T-tabulated 1.771						

Source: *Computed from Annual Reports*

In an attempt to find out whether the level of environmental disclosure in the selected sample firms actually meet the expectations of stakeholders as stated in hypothesis one, the total environmental disclosure of firms during the sample period (2010 to 2015) were analysed using the t-test statistics. Findings from the analysis as shown in table 2 above shows that the t-calculated result obtained is lower than the t-tabulated at 5% level of significance (i.e. -9.514 <1.771). This result accepts the Null hypothesis at the expense of the alternate hypothesis. It can therefore be statistically stated that the environmental information disclosed by firms does not satisfy the expectations of stakeholders.

- **CONCLUSION AND RECOMMENDATION**

It has been discovered in this study that environmental reporting is still at its lowest ebb in Nigeria. This is because there is no mandatory requirement or standard for companies to report environmental information in their annual reports. It is therefore recommended that accounting standard setting bodies in Nigeria (Financial Reporting Council of Nigeria, Corporate Affairs Commission), the apex regulatory institution of the Nigerian capital market (Securities and Exchange Commission) and self-regulating professional accounting bodies (Institute of Chartered Accountants of Nigeria (ICAN) and the Association of National Accountants of Nigeria (ANAN)) establish a framework that will form the basis of environmental reporting in Nigeria. A joint activity on the part of the Nigerian government and standard setting bodies should be targeted towards encouraging companies to adopt environmental friendly practices so as to improve or enhance the quantity and quality of environmental disclosure in Nigeria.