Corporate Environmental Disclosures in the Nigerian Manufacturing Industry: A Study of Selected Firms

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Abstract
The state of the world’s environment and the impact of mankind on the ecology of the world have led to increased public concern and scrutiny of the operations and performances of organisations. Despite some variations among countries in different regions, corporate environmental disclosures have increased globally in both size and complexity over the past two decades. Some developed countries have initiated mandatory disclosures in the reporting requirements. However, in most developing countries, environmental disclosures still heavily rely on voluntary initiatives of the reporting entities. In addition, despite the increase in research, studies in this area in the developing countries are still very scarce. This study therefore adopting the stakeholder’s theory examined the level of corporate environmental reporting practices in the selected manufacturing companies, listed on the Nigerian Stock Exchange. The study as part of its findings observed that the level of environmental disclosure practices in the industry...
is still very low and is still at its embryonic stage in Nigeria. The paper therefore calls for concerted efforts on the part of the Nigerian Accounting Standards Board and the government to take another look at making CED mandatory.

**Key words:** Environmental reporting, Listed companies, Manufacturing, Corporate, Organisation

**Introduction**

The state of the world’s environment and the impact of mankind on the ecology of the world have led to increased public concern and scrutiny of the operations and performances of organisations. Organisations are now expected to be able to demonstrate that they are aware and addressing the impact of their operations on the environment and society in general. Despite some variations among countries in different regions, corporate environmental disclosures have increased globally in both size and complexity over the past two decades. For example, in the US a number of studies have revealed that environmental disclosures have increased over time (Walden, 1993; Adams, Hill & Roberts, 1998). Similar situations appear in the UK, Australia and New Zealand (Frost & Wilmshurst, 2000; Tilling, 2004). Although some developed countries have initiated mandatory disclosures in the reporting requirements, however, in most developing countries environmental disclosures still heavily rely on voluntary initiatives of the reporting entities. In addition, despite the increase in research, studies in this area in the developing countries are still very scarce (Abu-Baker and Naser, 2000; Belal, 2001; Imam, 2000). To this end, this paper extends the body of existing literature by examining the level of corporate environmental disclosures practices among firms in the Nigerian manufacturing industry.

**Objective of Study**

Thus, this study will specifically attempt to achieve the following objectives:

i) To examine the corporate environmental disclosure practices among firms in the Nigerian manufacturing industries listed in the Nigerian Stock Exchange.

ii) It will examine the content-category themes of corporate environmental disclosures, i.e., environment, energy, human resources, products, community involvement and others.

iii) Finally, the study will attempt to ascertain whether there is a significant difference extent of corporate environmental reporting
among firms in the manufacturing industry as measured by the number of sentences.

Nature and scope of study
This study is empirical in nature and it basically looked at the corporate environmental disclosure practice among firms listed in the Nigerian manufacturing industry. However, in order to achieve the objectives outlined in this study, the corporate annual report for the year 2011 was examined. In addition, the paper was limited to the corporate environmental reporting practice of the following selected companies (Ashaka Cement, West African Portland Cement, Benue Cement Company Plc, Cement Company of Northern (Nig) Plc. and Ceramic Manufacturers Nigeria Plc). The choice of these companies arises based on their nature of production, the level of industrial operations and most importantly the market capitalization of the selected companies.

Research hypothesis
H₀: that there is a significant difference in the level of corporate environmental disclosure practices among firms in the Nigerian manufacturing industries

H₁: that there is no significant difference in the level of corporate environmental disclosure practices among firms in the Nigerian manufacturing industries.

Theoretical arguments on corporate environmental disclosure practices
Businesses in the form of corporations operate within the framework of a social systems (Gray, Owen and Adams, 1995); and thus despite the limited mandatory reporting requirements, literatures on corporate social disclosures suggests that an increasing number of companies in developed economies are now providing corporate social responsibility disclosures at varying levels. There are different theoretical frameworks used as a motivation to explain why companies may provide voluntary disclosure. In an influential review of the corporate environmental reporting literatures, Gray, Kouhy and Lavers (1995a) categorized much of the extant research literatures on corporation environmental reporting into three overlapping theoretical perspectives which includes the stakeholder theory, legitimacy theory and the political economy theory. These theories take a system perspective, recognizing that businesses interact with and affect entities beyond their artificial boundaries. Gray et al. (1995a:67) argued that these theories should be seen not as a competitive
explanation but as a source of interpretation of different factors at different levels of resolution.

Legitimacy theory relates to the extent and types of corporate social disclosure in the annual report to be directly related to management’s perceptions about the concerns of the community. Gray, Kouhy & Lavers (1995) suggest that legitimacy theory is useful in analyzing corporate behaviour. This is because legitimacy is important to organizations, constraints imposed by social norms and values and reactions to such constraints provide a focus for analyzing organizational behaviours taken with respect to the environment. The legitimacy theory argues that organisations seek to ensure that they operate within the bounds and norms of society (Tilt, 1999). Society's expectations have changed to expect businesses to make outlays to repair or prevent damage to the physical environment, to ensure the health and safety of consumers, employees, and those who reside in the communities where products are manufactured and wastes are dumped (Tinker & Niemark, 1987:84). Legitimacy can be considered as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions” (Suchman, 1995:574). To this end, organisations attempt to establish congruence between “the social values associated with or implied by their activities and the norms of acceptable behaviour in the larger social system of which they are part”.

Another theory which provides a framework for corporate social disclosures is the stakeholder theory. This theory according to Watts & Zimmerman (1978) assumes that disclosure on social and environmental information by an organisation is as a result of the pressure from stakeholders such as communities, customers, employees, environment, shareholders and suppliers. The basic proposition of this stakeholder theory is that a firm’s success is dependent upon the successful management of all the relationships that a firm has with its stakeholders. The stakeholder theory asserts that corporation’s continued existence requires the support of the stakeholders and their approval must be sought and the activities of the corporation adjusted to gain that approval (Chan, 1996). The more powerful the stakeholders, the more the company must adapt. This theory concludes that CSR is a way to show a good image to these stakeholders to boost long-term profits because it would help to retain existing customers and attract new ones.
Next, is social contract theory, which was developed, based on concept that there exists contract between business and wider society, whereby business agrees to perform various society desired actions in return for approval of its objectives, other rewards and its ultimate survival (Guthrie & Parker, 1989).

However, while legitimacy theory has become the most widely used theory to explain corporate social environmental disclosure practices (Campbell et al, 2003; Deegan, 2002) as there is mounting evidence that managers adopt legitimizing strategies such as those outlined above, the same cannot be said of the stakeholder theory especially in developing countries like Nigeria where environmental crisis and civil unrest in the Niger-Delta has crippled industrial activities in the area. To this end therefore, this study adopts the stakeholder’s theory as a basis in explaining corporate environmental disclosures.

**Research methodology**

To analyze the level of corporate environmental disclosure practice in Nigeria, this study intends to evaluate the corporate environmental reporting practice among firms in the Nigerian manufacturing industry listed in the country’s stock exchange. This paper basically made use of the content analysis in analyzing the content of the corporate annual reports of the selected listed firms. The content analysis method was adopted because it is one of the most systematic, objective and quantitative method of data analysis technique employed in other prior research studies involving corporate environmental disclosures practices (Wiseman, 1982; Deegan & Gordon, 1996; Hackston and Milne, 1996; Krippendorff, 2004). In addition, the analysis of variance technique will be used in comparing the level of corporate environmental disclosure practice among the selected firms.

**Research instrument**

In order to find out the level of corporate environmental disclosure practice among the selected manufacturing companies in Nigeria, this study will measure the level of corporate environmental disclosure in terms of number of sentences disclosed given that the coded data is required to reflect the emphasis that companies make on each information categories based on Hackston & Milne’s (1996) method. Previous research has used a number of methods, including proportion of pages of corporate environmental disclosure (Gray et al., 1995b), and number of words disclosed (Davey, 1982). Number of sentences disclosed was adopted because proportion of pages of disclosure does not consider different print and page sizes (Hackston...
& Milne, 1996). Number of sentences disclosed was also used because measuring number of words disclosed is time consuming as words are smaller and more numerous as a unit of measurement compared to sentences. Finally, according to Milne & Adler (1999), the construction of a categorization scheme is an essential stage in content analysis research. This involves the selection and development of categories into which content units can be classified (Tilt, 2000). The measurement instrument used in this study is adapted from Hackston & Milne’s (1996) study. The measurement instrument to be used contains 16 content categories within four testable dimensions. These are summarized below:

a) **Theme**: environment, energy, products and consumers, community involvement, employees and others (Ernst & Ernst, 1978)

b) **Evidence**: monetary, non-monetary-quantitative and declarative (Ernst & Ernst, 1978).

c) **News type**: good, bad and neutral

d) **Location in annual report**: Chairman’s Statement, Operations Review, Corporate Diary and Others

To ensure that the coding process is reliable, definitions of what comprised each category of CED were detailed out in a separate sheet. These were drawn from a review of related literature.

**Discussion of findings**

**Table 1: List of Sampled Companies in the Nigerian Manufacturing Industry**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Representations</th>
<th>List of selected companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>West African Portland Cement Plc</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>Ashaka Cement Plc</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>Benue Cement Company Plc,</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>Cement Company of Northern (Nig) Plc.</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>Ceramic Manufacturers Nigeria Plc.</td>
</tr>
</tbody>
</table>
Table 2: Content Category Theme of Corporate Environmental Disclosures

<table>
<thead>
<tr>
<th>Content Category By Themes:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Energy</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Products &amp; Consumers</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Community</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Employee</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>General</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>14</td>
<td>17</td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Corporate annual Report (2011)

Table 2 above gives a detailed breakdown of the number of sentences disclosed by companies as it relates to corporate environmental disclosures by themes. On the whole, it is seen clearly that companies are more highly disposed to disclosing environmental information in the area of employees, products and consumers than in other areas. This finding is consistent with that of Teoh & Thong (1984) where companies in the Malaysian manufacturing companies with corporate social reporting disclosures, disclosed majorly the aspects of human resources and product/services to consumers.

Table 3: Methods of Corporate Environmental Disclosures

<table>
<thead>
<tr>
<th>Methods of CED:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary disclosures</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Non-Monetary disclosures</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Declarative</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Corporate annual Report (2011)

In line with previous studies, corporate environmental disclosures were categorized according to their methods, i.e., monetary, non-monetary quantitative and declarative. The different methods of environmental disclosures as used in the annual reports of the sampled companies are as shown in table (3) above. The findings here show that corporate environmental disclosures in company’s annual reports are dominated by monetary disclosures. Companies here are more interested in reporting on corporate social responsibility issues rather than an outright declarative environmental disclosure statement.
As in similar previous studies, corporate environmental disclosures were categorized into three groups based on their news type. The outcome as shown in table (4) indicates that about 57% of the sampled firms concentrated more on the disclosure relating to good news rather than bad and neutral news where about 18% and 24% were noticed respectively. This outcome is consistent with Belal, 2001 and Imam, 2000. These findings emphasize the fact that CEDs are mere attempts at improving the corporate image of companies rather than to fulfill stakeholders’ information needs. Companies want to be seen as being good corporate citizens. They wish to appear ‘legitimate’ in the eyes of society.

Table 5: Location of Corporate Environmental Disclosures

<table>
<thead>
<tr>
<th>Location of CED:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Operations Reviews</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Diary</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Corporate annual Report (2011)

Also, results on the location of corporate environmental disclosure as depicted in table 5 shows that the proportion of companies with corporate environmental disclosures in the Chairman’s Statement and Operations Review sections of the annual report is relatively higher and tend to follow maintain a consistent pattern across the selected manufacturing companies. However, the same is not true for corporate diary and other sections of the annual report were disclosure of environmental information based on location is re relatively low. This outcome nevertheless supports the findings of Amaeshi, Adi, Ogbechie and Amao (2006), Ayoola (2011) and Appah (2011).

Restatement of hypothesis
Using the Analysis of Variance technique, recall that:
H₀: \( \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 \)

H₁: H₀ is not true or equal.

**Results:**

**Table 6: Analysis of Variance on the perception of respondents selected**

<table>
<thead>
<tr>
<th>Sources</th>
<th>DF</th>
<th>SS</th>
<th>MSS</th>
<th>Fcal.</th>
<th>Ftab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of variation between groups</td>
<td>4</td>
<td>51.2</td>
<td>12.8</td>
<td>0.94</td>
<td>3.06</td>
</tr>
<tr>
<td>Within group error</td>
<td>15</td>
<td>202</td>
<td>13.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Total</td>
<td>19</td>
<td>255.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Corporate annual Report (2011)**

Finally, Findings from our analysis with the aid of Analysis of Variance technique and at a significance level of about 0.05; our research reveals that the F-tabulated was greater than the F-calculated i.e. 3.06 > 0.94 (Ftab > Fcal. See table 6). This implies that the level of corporate environmental disclosures in the Nigerian manufacturing industry is significantly related. In essence, the statistical implication of these findings is that our null hypothesis which states that there is a significant relationship in the level of corporate environmental disclosure practices among firms in the Nigerian manufacturing industries should be accepted while the alternate hypothesis is rejected.

**Conclusions**

This study concludes that most companies majorly disclose information related to products and consumers, employees and community involvement. It was also observed that the Corporate Environmental Disclosure (CED) of these companies contains little quantifiable data. The results provide further evidence that CED in Nigeria is still very ad-hoc, general and self-laudatory in nature. The results, therefore, provide some preliminary evidence of the possibility that CED in Nigeria represent attempts by companies to improve their corporate image and to be seen as responsible corporate citizens. In addition, the content analysis result also suggests that CED do not vary substantially across industry. Neither was there any distinct pattern for a particular company. Finally, these findings imply that without some form of
regulatory intervention, reliance on voluntary disclosure alone is unlikely to result in either a high quality of disclosure or sufficient levels of disclosure.

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