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Evaluation of Environmental Financial Reporting Practices among Nigeria Quoted Companies

Olatunji T. E.

Lecturer, Department of Accounting,
Ladoke Akintola University of Technology, Oyo State, Nigeria

Fakayode .O.P

Ph.D. Student, Department of Accounting,
Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria

Abstract:

This paper examined evaluation of environmental financial reporting practices among Nigeria quoted companies. This study used both primary and secondary data. Primary data was obtained through the administration of a structured questionnaire which was distributed among 302 respondents randomly selected from twenty percent (20%) of the entire quoted Nigerian companies whose population stands at 216 as at January 2016. Secondary data was obtained from the annual reports and accounts of the sampled companies covering a period of 10 years (2007-2016). Anova was used to determine the level of corporate environmental disclosure practices among Nigerian quoted companies and one-way anova was used to evaluate the level of compliance of quoted companies in Nigeria comply with the ISO. Results showed that 80% of respondents affirmed that environmental information disclosed by companies formed a major part of company's annual report and corporate website. It was also observed that there was a significant difference in the level of corporate environmental disclosure among selected quoted companies ($p=0.224$). Also 90% of respondents affirmed that there was corporate environmental disclosure practice production in the study area. The study concluded that environmental reporting among Nigerian quoted firms complied with ISO 14031 requirements Return on Total Asset, Debt-to-Equity Ratio and Firm Size had positive significant effect on Environmental Disclosure Index.

Keywords: Environmental accounting, environmental disclosure, corporate practices

1. Introduction

Now-a-days, environmental issues have become a serious point of discussion. Various pollutions along with global warming has become common problem due to this (Dutta and Bose, 2008). Jasch (2003) opined this isn't thus, where the possibilities of sustainable development are in sight.

Thus, the quest for sustainable development as an object of policy is currently much in vogue; and administrations of various nations have for some time been occupied with setting up administrative, willful, incentive-based, instructive and agreeable instruments of policy outfitted towards advancing sustainable development (Li, 2001). According to Boyd (1998), many regulations have been also enforced due to manage this waste and to make sure that corporations are environmentally conscious. Concerns have been generated due to uncontrolled impact of industrial activities (Maunder & Burritt, 1991; Burritt, Hahn & Schaltegger, 2002; Aragón-Correa & Sharma, 2003). Shrivastava (1995), mentioned the accomplishment of naturally sustainable development. Further opines that the majority of organizations should take the environmental as part of their responsibilities in their financial resources, the innovative information and the institutional impact to give extreme arrangements; yet the reaction is by all accounts generally inactive. Williams (1999) in his study observed that investors and other stakeholders are asking for more disclosure of company's environmental information. Developing nations, especially in Nigeria where over 80% of the all-out industries working in the nation release fluid, solids and vaporous squanders, (for example, suspended solids, smelling salts, cyanides, phenols, phosphates, chlorides, chromium, nickel, cadmium, carbon monoxide, nitrogen oxides, sulfur oxides, particulate issue, sox, iron oxide, bond oven dust, hydrocarbons, smelling salts, acidic, salt transition, dissolvable exhaust and basic oxide outflows). To study various levels of environmental disclosure practices for quoted companies in Nigeria are the purposes of this research work.

2. Literature Review

2.1. Environmental Accounting

Incorporation of environmental effects into companies financial accounting statements is the main theory behind Social Responsibility Accounting and Environmental Accounting (Gray, Jawad, Power, & Sincdai, 1999). Socially applicable conduct can be traced from this. Performance and the development of suitable measures can also be reported through this (Matar, 2000). Determination and measurement of net social contribution mapping is the general objective of this on a periodic basis (Gray, 2002).

2.2. Concept of Environmental Accounting

Steele and Powell (2002), defined it as a creative sustainability activity. It is a facet of accounting which uses proof, allotment and analysis. It also uses material streams and their related cash flows. Environmental impacts and associated financial effects get highlighted through this. Peskin (1989) saw environmental accounting as an instrument that can be utilized to decide less substantial and outer expenses for ventures and exercises, for example, bio-assorted variety, human wellbeing and stylish qualities. It is a more extensive term that identifies with the arrangement of environmental performance related data to stakeholders both inside and outside an association (Shields and Boer, 1997). A significant capacity of environmental accounting is to carry environmental expense to the consideration of corporate stakeholders who might be capable and persuaded to distinguish methods for lessening or evading those expenses while in the meantime improving environmental quality. A corresponding definition given by the United Nations Expert Working Group (2000) on environmental accounting, which all the more unmistakably featured both the physical and money related sides of environmental accounting. This definition was developed by worldwide agreement of the gathering individuals, Environmental accounting includes the distinguishing proof, accumulation, examination and the utilization of two sorts of data for basic leadership: physical data on the utilization, stream of vitality, water and materials (counting wastes) and monetary data on condition related costs, profit and reserve funds.

2.3. Corporate Environmental Reporting

Environmental issues present various difficulties for organizations. One specific viewpoint is the exposure of the issues to an assortment of gatherings. This is especially valid, in the light of developing weight from stakeholders (speculators, clients, moneylenders, providers, governments/different organizations and open) on organizations to improve their performance around there (Bennett, James, and Klinkers, 1999). Environmental disclosures highlighted through this. During last 20 years environmental issues have been increasing (Dixon, Mousa and Woodhead, 2005). Various nations have environmental laws and guidelines to secure their condition. These laws force authorizes on culpable organizations; along these lines, environmental issues may materially affect organizations either legitimately or by implication (Adams, Hill and Roberts, 1998). It very well may be contended that environmental hazard is one territory of hazard that has developed in significance and has been outlined by Natale and Ford, (1995) as pursues: fines for contamination of land, water, or air, clean up expenses for land destinations, liability for transfer of perilous squanders, system separates enabling environmental issues to happen, loss of the open certainty (harmed notoriety or corporate picture) and loss of pieces of the pie when environmental occurrences happen.

Organizations should almost certainly react to environmental difficulties successfully. Where they face expanding weights from people in general to show social duty towards nature, numerous organizations try to confirm their social obligation by utilizing environmental reports (Epstein and Freedman, 1994; Kolk, 1999; Hooghiemstra, 2000). Additionally, an assortment of studies contended that various gatherings who use distributed yearly reports really consider environmental performance and environmental data is material for them. Be that as it may, partner hypothesis gives a clarification of why various organizations may need to take part in environmental exposure and how these organizations utilize such disclosures. Dim, Kouhy and Lavers (2011) characterized corporate environmental reporting as the way toward imparting the environmental impacts of associations financial activity to specific intrigue bunches inside society and to society on the loose. Organizations through the procedure of environmental correspondence may look to impact the open's observation towards their tasks. Scherpereel and Van-Koppen (2011), talked about the importance of environmental reporting and various factors responsible for it. Environmental reporting has been highlighted as mean of showing various environmental activities by Bennett and James (1997). Brophy and Starkey (1996), mentioned it as the provision of information about the environmental impact and operational performance.

2.4. Empirical Review

Enahoro (2009) examined the Design and Bases of Environmental Accounting in Oil and Gas and Manufacturing Sector in Nigeria. The study assessed the level of independence of tracking of costs impacting on the environment, the data was analyzed using Pearson Product-Moment correlation tests, ANOVA, and Multivariate Linear Regression Analysis. The research found that there is absence of costing system for tracking of externality costs. Osemene and Oloaye (2009), evaluated the Effect of Environmental Accounting Factors on the Life of the Inhabitants of the Oil Producing Communities in Nigeria. The data was analyzed by descriptive statistics and inferential statistics such as means, percentages and Z - score. The result shows that environmental factors have tremendous negative effect on the economy as well as the health of the inhabitants of the oil producing communities. Tynon (2012), Examined the Environmental Performance of First Tier Suppliers in the Oil and Gas Supply Chain Industry. The study is exploratory in nature and the findings revealed that a proactive environmental commitment has a direct influence on setting goals and priorities manifested in the firm's actions. The findings also show that commitment acts as a driving mechanism for environmental collaboration and investment decisions to develop appropriate environmental resources and capabilities. Germanova (2008), Corporate Social Responsibility as Corporate Governance Tool: The practice by the business in Bulgaria. The study combined both quantitative and qualitative methods. This research found that CSR could be viewed as a principal-agent relationship where business enterprises in general could be either agents or principals depending on the character of the relationship. Uganda based Manufacturing Industries have been studied by Namakonzi and Inanga (2014).

2.5. Theoretical Framework for Environmental Reporting

Various fluctuations of businesses often get reflected through annual financial statements. But many kinds of issues like environmental effects can't be represented in these statements. So, it is the concern of the stakeholders (Gray,

Owen and Adams, 1995). There are many motivations as well as explanations behind the voluntary disclosure made by companies (Gray, Kouhy and Lavers, 1995). For Gray et al. (1995) it is generally highlighted as a competitive explanation but a source of interpretations.

2.6. Political Economy Theory

As per Buhr (1998), 'accounting systems act as mechanisms used to create, distribute and mystify power'. His explanations are basically based on economic theories of self-interest. Frost (2000), suggested that environmental (and social) disclosures are mainly for enforcing an agenda to stave-off intervention. Many regulatory actions have been taken by government due to increased intervention of peer pressure (Whittred, Zimmerman and Taylor, 1996). Social responsibility disclosures have been used by companies to counter possible political costs (Watts and Zimmerman, 1978).

3. Methodology

For classification and comparison, the content analysis method has been used. It also facilitates determination of trends and extent of disclosures. It is known to be a systematic, objective and quantitative methods which had been used in other prior research studies (Krippendorf, 2004; Dutta and Bose, 2008). For analyzing the perception of community members on the disclosure of environmental performance information and the corporate relationship, ANOVA has been used.

3.1. Study Population

Out of the 216 listed companies in Nigeria as at 2015; the population of this study generally consists the selected Agricultural/Agro-Allied, Breweries, Building Material, Chemical and Paints, Health Care/Pharmaceutical and the Downstream Oil companies (Petroleum Marketing) listed in Nigerian Stock Exchange Markets.

| S/N | Industries / Sectors | Number of Companies |
|-----|------------------------------|---------------------|
| 1 | Agricultural/ Agro-Allied | 10 |
| 2 | Breweries | 7 |
| 3 | Chemical and Paints | 54 |
| 4 | Building Materials | 30 |
| 5 | Health care / pharmaceutical | 28 |
| 6 | Downstream oil companies | 15 |
| 7 | National resources | 5 |
| 8 | Construction and real Estate | 10 |
| 9 | Financial Services | 57 |
| | TOTAL | 216 |

Table 1: Number of Quoted Companies in Each Sector of Lagos Stock Exchange
Source: Researcher's Compilation, 2018

3.2. Sample Size and Sampling Technique for Secondary Data

By taking references from works (Sekaran, 2003; Amadi, 2005; Sharifah, Bakhtiar, Hasimah and Rahman 2008) sample size has been fixed as a minimum of 5% of a defined population. A total of 137 companies from 5 sectors have been selected through judgmental sampling. Building Material, Chemical and Paints, Health Care/Pharmaceutical and the Downstream Oil companies are the five industries. Polluters of the environment, the nature of production, types of raw material used, disposal of wastages, assets size and market capitalization rankings for December, 2008 has been used as the reference behind selection.

The number of firms chosen was limited in order to restrict the analysis to a manageable level.

| S/N | Industries/ Sectors | Number of companies | Cumulative |
|-----|----------------------------|---------------------|------------|
| 1. | Agricultural/ Agro-Allied | 10 | 10 |
| 2. | Chemical and Paints | 54 | 54 |
| 3. | Building Material | 20 | 20 |
| 4. | Healthcare/ Pharmaceutical | 28 | 122 |
| 5. | Downstream oil companies | 15 | 137 |

Table 2: Selected Sectors of Lagos Sock Market
Sources: Researcher's Compilation 2018

3.3. Descriptions and Measurement of Variables

The variables used in the model are as described and measured below:

$$EDISCt = f(ROTA_t, DEt, SIZE_t) \dots\dots\dots (1)$$

This can be written in explicit form as:

$$EDISCt = \beta_0 + \beta_1 ROTA_t + \beta_2 DEt + \beta_3 SIZE_t + Ut \dots\dots\dots (2)$$

Where:

EDISC = Environmental Disclosure Index.

SIZE = The measure of firm size adopted is the natural logarithm of Turnover.

ROTA = Return on total assets is used here as a proxy for performance and is defined as the profit before interest and tax divided by total assets as at the end of the fiscal year under consideration.

DE = Debt-to-equity ratio which is a measure of firm's reliance on debt, otherwise known as its financial leverage is used as a proxy to represent the nature of firms and is defined as the logarithm of total debt divided by the Total Equity.

U = Stochastic or disturbance term.

T = Time dimension of the Variables

β_0 = Constant or Intercept.

β_1-3 = Coefficients to be estimated or the Coefficients of slope parameters.

The expected signs of the coefficients (a priori expectations) are such that $\beta_1, \beta_3 > 0$ while on the other hand $\beta_2 < 0$.

4. Results and Discussion

4.1. Socio- Economic Characteristics of Respondents

It is clearly shown in Table 3 that there were more males than female, that is, males have about 54.5% of the respondents than females which have 45.5% of the respondents. This finding agrees with Baltagi (2005) who reported that males are always bold, ready to face challenges of life than women. Also, the table shows that 24.9% of respondents fell within the age of 20 – 29 while 30.4% fell between 30 – 39 years, 29.3% of ages of 40 – 49 years while 15.4% was 50-59 years. The sum of percentage of active years of age is 59.7. Moreover, the status shown on the table shows that married people have 66.4% of the respondents, single has 21.5% while others have just 33.6% of the respondents. This reflects the situations in the urban areas where different categories of people usually live together in a place where there are no relation and that married people have more and recognized status than singles - Bartov (1993). From the table, 30.1% of respondents fell between 1 – 10 years' experience, 26.8% of respondents from 11 – 20, 23.0% of 21 – 30 years while 20.1% fall between 31 and above years' experience.

More so, the table shows that none of the respondents have Primary certificate, 37.1 % have secondary, 9.2% of the respondents have ND/ NCE, 43.1% of the respondents possessed B.Sc./HND while 37.7% of the total respondents have M.Sc./MBA as their academic qualification in banking sector. Also, from the table, majority of the respondents are professionally chartered in one institute or the other, but majority of the respondents are having ANAN as their professional qualification; that is 27.4 % of the respondents, 11.1% with ICAN, 19.5% with CITA, 22.8% are with CIBN while 19.2 of the respondents did not have professional certificate.. This finding agrees with Baltagi (2005) who reported that professional qualification is an added advantage over others at the place of work.

| Socio Economic Factors | | Frequency | Percentage |
|----------------------------|-----------------------|-----------|------------|
| Sex | | | |
| (i) | Male | 161 | 54.5 |
| (ii) | Female | 134 | 45.5 |
| Age(years) | | | |
| (i) | 20 – 29 | 73 | 24.9 |
| (ii) | 30 – 39 | 90 | 30.4 |
| (iii) | 40 – 49 | 86 | 29.3 |
| (iv) | 50-59 | 46 | 15.4 |
| (v) | 60 and above | | |
| Marital status | | | |
| (i) | Single | 99 | 33.6 |
| (ii) | Married | 196 | 66.4 |
| (iii) | Others | | |
| Experience (years) | | | |
| (i) | 1 – 10 | 89 | 30.1 |
| (ii) | 11 – 20 | 79 | 26.8 |
| (iii) | 21 – 30 | 68 | 23.0 |
| (iv) | 31 and above | 59 | 20.1 |
| Academic Qualification | | | |
| (i) | Primary | 00 | 00 |
| (ii) | Secondary | 27 | 9.2 |
| (iii) | ND/ NCE. | 30 | 10.0 |
| (iv) | Bachelor's degree/HND | 127 | 43.1 |
| (v) | M.Sc./MBA | 111 | 37.7 |
| Professional Qualification | | | |
| (i) | NIL | 57 | 19.2 |
| (ii) | ANAN | 81 | 27.4 |
| (iii) | ICAN | 33 | 11.1 |
| (iv) | CITN | 57 | 19.5 |
| (v) | CIBN | 67 | 22.8 |

Table 3: Distribution of Respondents by Their Socio – Economic Factors
Source: Researcher's Computation (2018)

4.2. ANOVA Results on the Level Of Corporate Environmental Disclosure Practice Among Nigeria Quoted Companies

From table 4.3, it can be deduced that there was no significant difference in the level of corporate environmental disclosures among Nigerian selected quoted companies. This reflected in the results: $f(295) = 11.59$, $p = .786$. That is, significance value (.786) was found to be greater than the alpha value (0.05). Therefore, the hypothesis which stated that there was no significant difference in the level of corporate environmental disclosures among Nigerian selected quoted companies is rejected. Therefore, there is difference in the level of corporate environmental disclosures among Nigerian selected quoted companies

| Source | Sum of Square | Df | Mean Square | F | Sig | Remarks |
|---------------------------|-------------------|-----|-----------------------|---------|------|--------------|
| Corrected model | 271.076 | 4 | 77.769 | 112.59 | .786 | Not Rejected |
| Intercept | 116.882 | 1 | 126.882 | 198.678 | .000 | |
| Environmental Disclosures | 271.076 | 4 | 77.769 | 112.59 | .775 | |
| Error | 174.551 | 290 | .601 | 1.051 | | |
| Total | 445.627 | 294 | | | | |
| | R-squared = 0.608 | | Adj R-squared = 0.603 | | | |

Table 4: ANOVA on the Level of Corporate Environmental Disclosures among Nigerian Selected Quoted Companies
Source: Researcher's Computation (2018)

| Source | Sum Of Square | Df | Mean Square | F | Sig | Remarks |
|----------------|---------------|-----|-------------|-------|------|----------|
| Between Groups | 59.7188795 | 4 | 34.9797166 | 28.05 | .224 | Rejected |
| Within Groups | 154.328578 | 290 | .832166732 | 387 | | |
| Total | 214.047458 | 294 | | | | |

Table 5: One-Way ANOVA on the Level of Compliance of Quoted Companies in Nigeria with the ISO

From table 4.2, it can be deduced that Environmental reporting among Nigeria quoted firms do not comply with ISO 14031 requirements: $f(295) = 28.05$, $p = .224$. That is, significance value (.224) was found to be less than the alpha value (0.05). Therefore, the hypothesis which stated that Environmental reporting among Nigeria quoted firms do not comply with ISO 14031 requirements was rejected. Therefore, Environmental reporting among Nigeria quoted firms complied with ISO 14031 requirements.

5. Conclusion and Recommendations

Based on the empirical findings, the fortification of the environment from environmental waste is a greeting for development, environmental information. Also, environmental reporting among Nigeria quoted firms complied with ISO 14031 requirements. Similarly, companies operating in the country are generally environmentally friendly, the disclosure of environmental information and performance of companies can influence the activities of various stakeholders' group and Companies prefer to disclose the adopted of clean products technology in their financial reports. Furthermore, return on total asset (ROTA), Debt-to-Equity Ratio (DE) and Firm Size (SIZE) has a positive effect of on Environmental Disclosure Index EDISC. Based on the findings made in the course of this study, the following recommendations are hereby suggested/. There must be more pro-active steps on the part government, accounting regulatory bodies and the academia to wake up to their responsibilities by issuing policy statements and standards that will make it either voluntary or mandatory for organizations to disclose environmental information as it relates to their various operations.

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