

CORPORATE ATTRIBUTES AND ENVIRONMENTAL DISCLOSURES OF LISTED BREWERIES IN NIGERIA

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ABSTRACT

This study examined the effect of corporate attributes on environmental disclosure of listed breweries in Nigeria from 2012 to 2021. The independent variable of the study was corporate attributes and was proxied by profitability, leverage and firm size while the dependent variable of the study was environmental disclosure. Secondary data were used, three hypotheses were formulated and the research design employed in this study was *ex post facto* research design. To test the hypotheses of the study, the researcher adopted the pooled logistic regression technique and the statistical package employed was STATA 16. The results from the analysis revealed that firm size has a significant effect on environmental disclosures of breweries in Nigeria while profitability and leverage have no significant effect on environmental disclosures of listed breweries in Nigeria during the period under study. Thus, it was concluded that only the size of the firm can significantly determine the likelihood of listed breweries to disclose more of their environmental engagements. It was recommended among others that the management of the Nigerian brewery should expand the total assets base of the companies so that they can be confident of disclosing more environmental information in their financial reports.

Keywords: Corporate attributes, environmental disclosure, profitability, firm size, leverage.

1.0 INTRODUCTION

Environmental disclosures have been in the fore front of accounting literature lately because of the importance of the environment to human existence. The management of

risk and reward coupled with stakeholders' involvement has made companies to be more environmentally responsible than in the past decade. Risk arising from hazardous environmental footprint and the attendant hostility from host communities; and the benefits accruing to companies from the use of natural resources, need to be balanced to protect the shareholders' investments. In the past, environmental issues usually get lesser attention and minimal importance; however, this can no longer be sustained, as the subject has attracted both national and global attention. One approach to evaluating company's environmental footprint is to examine if they engage in environmental disclosure. According to Effiong, Oti and Akpan (2019), such disclosures include reporting organization's impacts on living and non-living natural systems, including ecosystems, land, air, and water.

Presently, the new order in corporate reporting enjoins businesses to incorporate environmental responsibility in its reporting of profitability. This consciousness has "led to increased awareness on corporate social responsibility whereby the success of an organization is measured not only by its financial performance but also by its social and environmental impact" (Agenda, 2019). According to Deegan, Rankin and Tobin (2021), corporate environmental reporting refers to the way and manner by which a company communicates the environmental effects of its activities to particular interest groups within society and to the society at large. Environmental reporting is a public relations vehicle adopted by the reporting entity designed to offer reassurance in order to help create a good image. Nawaisseh (2020) argues that companies use environmental report as a communication instrument. The main aim of this instrument is to influence people's perceptions of the company and influence corporate image or reputation. According to Umoren and Ukpong (2022), companies generally publish disclosures relating to social and environmental issues through their traditional annual reports. However, stand-alone sustainability reports have become increasingly important channels to communicate sustainability issues and initiatives.

Corporate attributes are specific features or characteristics of companies that influences the ability of companies to undertake certain actions and activities. Ali and Isa (2018) define corporate attributes as firm characteristics or specific features that distinguish one firm from another. Such attributes include firm size, profitability, financial leverage, firm age, firm growth, management efficiency and firm stability. They can influence the decision and operations of the firm. There is evidence that firm characteristics influence the firm's choice of internal governance mechanism especially with respect to performance measures including environmental reporting (Plat & Plat, 2020). Firms' characteristics such as firm size, leverage, profitability of the firm, age of firm amongst others influence firms' environmental reporting practices. Large companies have the incentives to disclose environmental information in their annual report because of their

wide stakeholder base, exposure to public scrutiny and also to enjoy the benefits accruing to green organizations. Profitable companies have the likelihood to disclose environmental information because the cost can be born without excessive impact on the company's cash flows. In the same vein, there is a likelihood that firms that have high financial leverage have the tendency to make more environmental information so as to reveal to the investors that they are environmental responsible firms and thus exposed to less risk and aggression from the host companies.

The environment has suffered so much degradation because of the activities of companies such as poor waste disposal mechanism, oil spillage, gas flaring, deforestation and so many ill activities. According to Effiong, Oti and Akpan (2017), there has been constant use of non- renewable source of energy without reasonable attempt to develop renewable sources. Environmental disclosures are carried out when the company have implemented sustainable measures to preserve the environment and such practices are only voluntary. The issue of sustainability has pushed corporate managers to be environmentally responsible while striving for economic viability. Perhaps, the consistent and growing demands by stakeholders have provoked companies to invest heavily on environmental protection and preservation. It is expected that this environmental responsibility – both financial and non – financial are disclosed in the annual report of the company so that the various stakeholders can make informed decisions. Globally and in Nigeria specifically, there is no definite accounting standard to ensure uniformity in reporting environmental issues but rather guidelines issued by some organizations and environmental protection agencies e.g Global reporting initiative (GRI).

Previous researchers had used different companies to examine what factors influence environmental disclosure, but the brewing companies seemed to get a lesser attention. Literature has reported mixed evidence concerning the factors that could affect companies' attitude toward environmental reporting. It is also unclear the nature of effect these factors have on environmental reporting as some studies reveals negative while others reveals negative results. For instance, Uwalomwa and Martle, 2018; Nawaiseh, 2020; Nor and Khelghat-doost, 2019, show a positive relationship while studies by Van deBurgwal and Viera, 2014; Bera and Jarque 2016; Ciampi, 2015 show a negative relationship. The mixed results require further investigation. It is based on this gap that this research was triggered.

This work would contribute to knowledge by enriching and expanding the existing literature on corporate attributes and environmental disclosure especially in a developing country like Nigeria. Thus, this work provides a different view from what could be obtained in developing countries, which is distinct in many aspects given different legislative and reporting background. This study would also be significant to any academic who would want to embark on research on similar and related area of study.

And lastly, the work will be of immense help to the curious general reader who might be interested in having a little knowledge of the subject matter.

2.0 REVIEW OF RELATED LITERATURE

2.1 Corporate Attributes

Corporate attributes are specific features or characteristics of a company that influence the ability of such company to undertake certain actions and activities. Nasir et.al, (2016) noted that corporate attributes in the context of corporate environmental reporting, refer to identities, qualities and features which relate to that organization. Corporate attributes are internal variables that influence corporate policy and decision (Shehu, 2009). They are specific variables that enhance the possibility of achieving corporate goals. Shehu, (2009) divided corporate attributes into two basic groups: corporate performance attributes and corporate structural attributes. The corporate performance attributes include corporate growth and profitability, while the corporate structural attributes include corporate size, corporate leverage, corporate age and management efficiency. According to Suhaila, Kila, Mahamood and Monsur (2008), those attributes distinguish one firm from another and can determine the outcome of their performance. There is evidence that firm characteristics influence the firm's choice of internal governance mechanism especially with respect to performance measures including environmental reporting (Jumani, 2020). Jariya, (2014) in examining company attributes, divides them into three categories: uncontrollable, partially controllable and controllable. Uncontrollable attributes are those which fall outside the direct control of the firms and include organizational size and structure. Partially controllable attributes are those that cannot be changed at will by the firm but susceptible to change in the long run and include organizational resources and organizational maturity while the controllable attributes are those under the control of the firm such as leverage. In this study, corporate attributes are proxied by profitability, firms' size and leverage.

2.2 Environmental Disclosure

According to Effiong, Oti and Akpan (2019) environmental performance has to do with organization impacts on the living and non-living natural systems as well as the input/output mode of organizational impacts on the environment. Environmental accounting emerged as a result of advancement in technology that brought negative impact or footprint on the environment where economic activities are carried out. According to Oti, Effiong and Akpan (2017), such environmental footprints include emission of harmful green house gases, noise pollution, oil spillage, environmental degradation, destruction of ecosystem, long term waste disposal, depletion of natural resources, water pollution and uncompensated health crises. Disclosure of these negative impact and remediation strategies put in place by the companies will enable the stakeholders to know that such companies are responsible and sustainable companies.

Beyond the input/output analysis, companies that subscribe to environmental sustainability have the legitimate desire to see the environment improve as a result of their business operations (Effiong, Oti & Akpan, 2019). Thus, environmental disclosure serves as a medium of communication between the company and stakeholders. But most at times, the companies choose what to report and concentrate only on profitability bottom lines without embracing the triple bottom line reporting framework, which according to Effiong, Oti and Akpan (2019) is a wholistic reporting framework which captures the three performance dimensions of environment, social and economic performances. This information can be in form of financial and non-financial information and quantitative or qualitative in nature. Environmental disclosure covers all information relating to the environment, and this information is disclosed or made available through the company's annual report or a stand - alone report (Umoren & Ukpung, 2022).

Firm characteristics such as firm size, leverage, profitability of the firm, age of firm amongst others influence firms' environmental reporting practices. It is also widely believed that firm characteristics influence the quality and quantity of environmental information reported by firms (Nor & Khelghat-Doost, 2019; Lee & Yey 2014; Altman & Sabato 2017).

2.2.1 Profitability and Environmental Disclosures

Highly profitable firms tend to embrace environmental disclosures because it is expected that they can bear the additional cost of making extra disclosures. Profit is the excess of total income over total expenditure. It is the return on capital employed' or 'investment' or 'equity' Thus, profitability is the result of a company's operation over a period of time. When profitability is high and a firm achieves a high margin of profit, the managerial groups are motivated to disclose more information in order to show off good reputation to the consumers, shareholders, investors and other stakeholders. Indeed, firms would normally only engage in voluntary disclosures when they have made some economic gains. This is because disclosing environmental information entails cost, which firms will only bear when there is sufficient profit beyond fulfilling shareholders' obligation (Hair et.al. 2014).

Therefore profitability of a company is very crucial in determining company's strength to disclose environmental information. According to Etim, Ekpoese, Akporien and Akpan (2023), without profitability companies will not survive in the long run. Studies on relationship between profitability and the extent of environmental disclosure came with mixed findings by using various proxies for measuring profitability such as net profit (NP), return on capital employed (ROCE), dividend per share (DPS), earnings per share (EPS), return on assets (ROA) and return on equity (ROE). Oti, Effiong and Akpan (2017) examined accounting perspective of environmental footprint of the oil and gas

industry in the South-South region of Nigeria. The study was motivated by the curiosity to explain what goes on in the Niger-Delta region in the light of environmental degradation and the continuous agitation for a sustainable approach to corporate social responsibility (CSR). They observed that the corporate social responsibility strategies employed by the oil and gas companies are not adequate to address the environmental degradation resulting from their operations. These findings agree with Baueller et al (2011), whose work indicated that the oil and gas companies in an attempt to respond to the needs of vulnerable communities adopt strategies that are largely short-term and unsustainable. Plat and Plat (2020) conducted a research on environmental accounting and financial performance of oil and gas companies in Nigeria from 2016-2022 and they found out that environmental disclosure has no relationship with financial performance. Yayaya (2018) examined the environmental disclosure and financial performance of listed environmentally –sensitive firms in Nigeria. The result indicated that environmental disclosure and financial performance have positive and significant relationship. Effiong, Oti and Akpan (2019) examined the effect of triple bottom line reporting on shareholders' value of oil and gas companies in Nigeria and found out that environmental disclosures have significant effect on economic value added of oil and gas companies in Nigeria. Umoren and Ukpong (2022) examined the corporate factors influencing sustainability reporting of listed companies in Nigeria. Four dimensions of the corporate attributes were investigated, namely: firm size, profitability, board size and board diversity. They found out that that firm size has positive and significant relationship with sustainability reporting, whereas profitability has negative and insignificant relationship. It is thus against these findings that it was hypothesized that;

H₀₁: Profitability does not have any significant effect on environmental disclosures of listed breweries in Nigeria.

2.2.2 Leverage and Environmental Disclosures

Leverage is an investment strategy of using borrowed fund, specifically the use of financial instruments to increase the potential return. It can also refer to the amount of debt in a company's capital structure. Investors in companies and lenders depend solely on financial statements for the evaluation of a firm's financial standing and credit rating. Thus, managers are disposed to increase disclosure because investors in companies and lenders depend solely on financial statements for the evaluation of a firm's financial standing and credit rating. Thus, managers are disposed to increase disclosure to reduce agency costs between insiders and creditor. Though leverage has been theoretically demonstrated to be instrumental in explaining disclosure practices of firms, its empirical effect is mixed. For instance, Sulaiman, Abdullah and Fatima (2014) documented negative association between leverage and environmental accounting disclosures. On the other hand, Agenda (2019) reported positive effect of leverage on environmental accounting disclosure; Plat and Plat (2020) found a significant positive relationship

between financial leverage and corporate disclosure, Egbunike and Okoro (2018) found a positive relationship between environmental disclosure, firm size, leverage, earnings per share and governance of the studied manufacturing companies in Nigeria. On the basis of the above, it was hypothesized that;

H₀₂: Leverage has no significant effect on environmental disclosure of listed breweries in Nigeria.

2.2.3 Firm Size and Environmental Disclosures

The size of the firm is a major driver of environmental disclosure. Evidence from prior researches have shown that the size of the company can be measured in many ways which include sales revenue, number of employees, companies average market value and total assets. The size of a company has a significant role in decision making about the environment in which the company operates. Therefore, firm size may determine company's ability to disclose environmental information in their annual reports. There is a mixed result in the literature concerning the effect of firm size on environmental disclosures. For instance, Brammer and Pavelin (2016) in their study on corporate social and environmental disclosure found out that firm size has positive association with environmental disclosure. Cormier, Ledoux and Magnan (2009) revealed that firm size is one of the key drivers of environmental disclosure. Nawaiseh (2015) documented a negative significant relationship between firm size and environmental disclosure. Thus, based on the above, it was hypothesized that;

H₀₃: Firm size does not have any significant effect on environmental disclosure of listed brewery companies in Nigeria.

2.3 Theoretical Background

This study anchors on stakeholders theory anchored by Edward Freeman in 1984 and explains why a firm may voluntarily choose to provide environmental information to meet stakeholder concerns. Stakeholders' theory perspective takes cognizance of the other stakeholders of the firm, including customers, suppliers, employees and other segments of the society. More so, this theory proposes an increased level of environmental awareness which creates the need for companies to extend corporate planning to include the non-traditional stakeholders in order to adapt to changing social demands. As stakeholders influence becomes crucial for corporate image and comparative advantage, companies manage their stakeholders' relationship by providing information often in the form of voluntary disclosures in the annual reports or on their websites. The justification is that stakeholders which Muthanachi and Stantion (2018) defines as those who have stake in an organization, have power to influence the organization, including its actions, decisions, policies and goals. The stakeholder's theory is divided into the ethical and managerial aspects; the latter is concerned with identifying the most important amongst the stakeholders to satisfy their desires. To this aspect of

stakeholder's theory, not all stakeholders in their nature can affect the productivity or performance of an organization. This implies that more attention needs to be given to the more influential stakeholders such that the influence of the stakeholders is ranked in such a way that more efforts are made to keep a strong relationship with powerful stakeholders.

Stakeholder theory does not give primacy to one stakeholder group over the other, though there will surely be times when one group will benefit at the expense of others. However, management must keep their relationship among stakeholders in balance, when this relationship becomes skewed the survival of firm is in jeopardy.

3.0 METHODOLOGY

According to Akpan and Nsentip (2020), research design is the blueprint that guides and directs the researcher on how to achieve the objectives of their study. it entails the plan, procedures and strategies adopted by the researcher to achieve the purpose of their studies (Uford, 2017). Based on the above, the research design adopted for this study was *ex-post facto* design. This choice was informed by the fact that the data used was historical and the variables of the study would not be manipulated by the researcher. The population of this study was made up of all breweries that are listed on the floor of the Nigerian Exchange Group for the period between 2012 and 2021. As at 31st December, 2021 the total number of listed breweries companies were five (5). Since the study population was not large (5 Listed breweries firms), the whole population was taken as the sample size of the study. The data used in this study were secondary obtained from the study firms' annual report and stock exchange fact book. In order to test the effect of firms' attributes on environmental disclosures the study conducted some pre-regression analysis which include descriptive statistics, correlation analyses and Logistic regression analyses technique was used to analyze the study.

The model for this study was adopted from the studies of Suleiman, Abdullah and Fatima (2014), but modified to suit the hypotheses of this study. Hence, the author specifies the econometric function as; $\text{EnvDisc}_{it} = \pi_0 + \pi_1 \text{Prof}_{it} + \pi_2 \text{Leverage}_{it} + \pi_3 \text{firm size}_{it} + \sum$

Where:

EnvDisc	=	Environmental disclosure
Prof	=	Profitability
Leverage	=	Leverage
Fsize	=	Firm Size
it	=	(i = no of cross section and t = time periods)
\sum	=	Model Error Term

4.0 DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Data presentation

The study evaluated the effect of firms' attributes on environmental disclosure of Nigerian breweries companies in Nigeria. The independent variable of the study was firms' attribute and was proxied by profitability, leverage and firm size and the dependent variable was environmental disclosure. The data set span through a ten (10) year period (2012 – 2021). The following analyses were conducted in the study.

4.2 Data analysis

Table 4.1: Descriptive statistics of the effect of corporate attributes on environmental disclosure of of listed breweries in Nigeria

VARIABLES	MEAN	SD	MIN	MAX	NO OBS
ENVD	6.90	1.08	4.70	9.59	50
PROFS	0.06	0.24	0	1	50
Lev	0.06	0.23	0	1	50
FIMZ	0.14	0.35	0	1	50

Source: Author's computation (2022)

Table 4.1 represents the results obtained from the descriptive statistics of the study. From the table it is observed that the mean of environmental disclosure is 6.90 with a standard deviation of 1.08. The table shows that the minimum and maximum value of environmental disclosure is 4.70 and 9.59 respectively. In the case of the independent variable, table 4.1 shows that the mean of profitability is observed to be 0.06 with a standard deviation of 0.24. In the same vein, the table shows that the mean of leverage is 0.06 and a standard deviation of 0.23. In the case of firm size, the table shows the mean value of 0.14, standard deviation of 0.35, minimum and maximum values of 0 and 1.

Table 4.2: Spearman Rank Test for Correlation between corporate attributes and environmental disclosure of listed breweries in Nigeria

Key					
rho					
Number of obs					
Sig. Level					
		EnvDis	Prof	Leverage	FSize
EnvDis		1.0000 38			
Prof		-0.0100 38	1.0000 38		
Leverage		-0.1095 38	0.2725 38	1.0000 38	
FSize		0.7140 38	0.1159 38	0.0179 38	1.0000 38
		0.0000	0.4883	0.9148	

Source: STATA'16 Output (2022)

Specifically, the analysis from the spearman rank correlation showed that only the independent variable of firm size (0.7140) is positively correlated to environmental disclosure of listed breweries firms in Nigeria. However, the independent variable of profitability (-0.0190) and leverage (-0.1095) are negatively correlated to environmental disclosure of listed breweries firms in Nigeria. Furthermore, the associations are seen to be weak hence there is no room to suspect the presence of multicollinearity in the estimated model.

Table 4.3

Pooled Logistic Regression estimates of the effect of corporate attributes on environmental disclosure of listed breweries in Nigeria

EnvDis	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Prof	-.095038	.0696498	-1.36	0.172	-.2315491	.0414731
Leverage	-.0833172	.0594955	-1.40	0.161	-.1999261	.0332918
FSize	7.750659	3.808505	2.04	0.042	.2861269	15.21519
_cons	-52.14783	25.62922	-2.03	0.042	-102.3802	-1.915473

No of Observations = 50 Prob > chi2 = 0.0000 Pseudo R² = 0.6439

Authors' Computation or Output (2022), using STATA 16.

Table 4.3 shows a summarized result obtained from the environmental disclosure logistic model where the coefficient, Z-statistics as well as the corresponding probability of the Z_statistics for the model are shown. The logistic regression result above reveals a Pseudo R² value of 0.6439 which indicates that about 64% of the variation in the dependent variable is been explained by all the independent variables in the model. This also suggests that 36% of the variation in the dependent variable is left unexplained but have been captured in the error term. Furthermore, the model goodness of fit as captured by the Likelihood ratio statistics (32.20) and the corresponding probability value (0.0000) shows a 1% statistically significant level suggesting that the entire model is fit.

4.4 Discussion of Findings

Profitability and Environmental Disclosures

In view of the result obtained from the logistic regression for the model, it was observed that profitability has no significant likelihood to increase environmental disclosures during the period under consideration. This is evident from the variable of profitability with coefficient = -0.095, z_statistics = -1.36 and Probability z = 0.172. Clearly, this result indicates that on the average, there is no significant likelihood that the profitability of breweries in Nigeria would improve environmental disclosure practices of these companies. This finding is consistent with the null hypotheses which stated that

profitability has no significant effect on environmental disclosure. This implies that a percentage increase in profitability would significantly decrease the environmental disclosure practices of breweries in Nigeria. This finding is inconsistent with the position of Yayaya (2018) who concluded that profitable firms make more environmental disclosures than non-profitable ones. On the other hand, the findings support the work of Beredugo and Mefor (2018) who noted that firms with high profitability tend not to make more environmental disclosures than those that are struggling to survive. Also this outcome support the findings of Etim et.al., (2023) whose findings revealed an insignificant influence of firm characteristics (profitability, leverage and revenue growth) on asset growth quoted companies in Nigeria.

Leverage and Environmental Disclosures

In this study, it was observed that leverage has no significant (coefficient = -0.083, $z_{\text{statistics}} = -1.40$ and Probability $z = 0.161$) likelihood to increase environmental disclosures during the period under consideration. This finding supports the work of Cormier and Magnan (2020) who demonstrated an insignificant relationship between environmental disclosure and leverage. On the other hand, this finding negates the work of Egbunike and Okoro (2018) who found positive significant relationship between leverage and environmental disclosure. In a similar study, Jumani (2020) found a significant positive relationship between financial leverage and corporate disclosure. He noted that companies listed on Bahraini Stock Exchange with high financial leverage disclose more of social and environmental information on their website than those with low financial leverage.

Firm Size and Environmental Disclosures

Finally, in view of the result obtained from the logistic regression in table 4.3, it was observed that firm size has a significant likelihood to improve environmental disclosures during the period under consideration. This is evident from the variable of firm size with coefficient = 7.751, $z_{\text{statistics}} = 2.04$ and Probability $z = 0.042$. Clearly, this result indicates that on the average and all things being equal, there is a significant likelihood that firm size would improve environmental disclosures of listed firms. This finding is inconsistent with the stated null hypothesis, and the null hypotheses was rejected. Hence firm size has a significant effect on environmental disclosures with respect to listed breweries firms in Nigeria during the period under review. This is consistent with the studies of Nawaiseh (2015) who documented a positive significant relationship between firm size and environmental disclosure. The findings of this study further corroborate the work of Umoren and Ukpong (2022) who examined the corporate factors influencing

sustainability reporting of listed companies in Nigeria. They found out that that firm size has positive and significant relationship with sustainability reporting, whereas profitability has negative and insignificant relationship.

Similarly, Ahmad (2015) studied the determinant of environmental disclosure in annual reports of Sri Lankan listed manufacturing companies and found that firm size has positive influence with the level of corporate environmental disclosure.

5.0 CONCLUSION AND RECOMMENDATIONS

Increasing demand for corporate accountability and transparency about the impact of corporate decisions on the environment and society as a whole has given rise to the concept of environmental accounting. Environmental reporting has been serving as a fundamental communication tool between organizations and the various stakeholder groups, focused on environmental impacts and remediation strategies. More certain firms' specific attributes such profitability, financial leverage, firm size; impact on the disclosure practices of these firms. These disclosure practices are particularly critical for breweries whose economic activities have serious footprint on the environment. Based on the findings of the study, it was concluded that the firm size has significant effect on environmental disclosures of listed breweries in Nigeria. This means that larger firms tend to disclose more environmental practices than firms with relatively smaller size. From the findings of this study, it was recommended that management of the brewery should expand the total assets base of the companies so that they could be confident of disclosing more environmental information in their financial reports.

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