Managerial Dynamics as a Determinant of Environmental Disclosures among Listed Manufacturing Companies in Nigeria

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ABSTRACT

As the global economy grows, environmental issues are posing an increasing burden to businesses worldwide, particularly in Nigeria. However, issues including carbon emissions, water pollution, and other environmental hazards are now significantly affecting stakeholders due to global warming. Consequently, rising death and incidence rates are among the main reason behind the consistently high temperatures. A number of nations, including Nigeria, are gravely concerned about how global warming may affect people's health. By inference, the aforementioned issues have drawn attention to this study. Therefore, this study investigates effect of managerial dynamics as a determinant of environmental disclosures among listed Manufacturing companies in Nigeria. Specifically, to what extent does managerial efficiency influence environmental disclosures among listed Manufacturing companies in Nigeria? Using Krejcie and Morgan (1970), 63 is the sample size for an ex-post factor research design with a population of seventy-six (76) listed manufacturing enterprises. However, only forty-nine (49) of the companies are selected as the sample size determination table covering seven (7) sectors due to incomplete data availability and inconsistent company listing. Panel Corrected Standard Error Estimation was used to analyze the data that these companies provided. The results show that there is a positive correlation (0.002 co-efficient) between the environmental disclosure and managerial effectiveness of Nigeria's listed industrial enterprises. Thus, the study unquestionably shows that while managerial success is beneficial, environmental disclosure is not much impacted by it. In light of this, the report suggests that the Nigeria Exchange Group (NGX) implement additional guidelines and oversight to guarantee that all listed industrial firms keep disclosing data on environmental risks such as carbon emissions, water contamination, and other hazards. The growing global economy is placing an increasing strain on businesses worldwide due to environmental issues. However, a lot of individuals are currently affected by the global warming issue.

Keyword: Managerial Dynamics, Managerial Efficiency and Global Reporting Initiatives (GRI)

Introduction

Environmental risks are becoming a greater burden for corporations globally as the world economy expands, according to the most recent development of the Global Reporting Initiative (GRI). But the issue of global warming is now affecting a lot of people. The continued very high temperatures are mostly due to an increase in death and incidence rates. Nigeria is just one of many nations that are deeply concerned about how global warming is affecting human health (GRI, 2013.) As result of this, stakeholders such as

communities, customers and employees have been affected due to high level of oil pollution, spilled pollution, and other environmental hazardous that are contributing negatively to all these stakeholders. Companies that have good environmental disclosure will be responded positively by shareholders (Robinson et.al, 2023). However, corporations with high profits are free to reveal any information that increases the company's value in the eyes of potential investors, including environmental disclosure.

Thus, because of the high level of ecosystems, land, air, and water, businesses generate large profits at the expense of communities, employees, and other stakeholders. The disclosure of inputs (such as materials, energy, and water) and outputs (such as emissions, effluents, and waste) is covered by Environmental Pointers. In addition, they cover the disclosure of data pertaining to biodiversity, environmental submission, and other relevant data including environmental output and product and service impacts. The incessant cases of environmental pollutions as a result of activities of corporate bodies have contributed to increased environmental awareness and have put companies under societal pressure to reduce their impacts on the environment (Phung et.al, 2023).

Additionally, management chooses disclosure that is in the best interest of their company and this causes serious problems. For instance, such disclosure lacks basic quality like consistency and comparability, both over time and across entities (Bini, Giunta, Miccini, & Simoni 2023). This is because in most cases, companies are given the leeway to provide information that are related to their environmental activities (Berrone, Fosfuri, Gelabert & Gomez-Mejia 2013). Measuring the quality of disclosure is crucial, though, as examining only the amount of disclosure can occasionally be deceptive. This is because assessing the quality of disclosures can introduce additional factors into the evaluation of environmental reporting.

In Nigeria, the extent at which firms' most especially manufacturing companies such Dangote, Larfarge and the light of others operate has caused in the gigantic environmental pollution in the country. Nigeria have been seen as one of such country, , with a high level of environmental pollution that subsidizes significantly to global environmental difficulties that result to pollution, gas flaring , global warming,

climate change, oil spills, and deforestation. Oil spills in developing countries specifically, Nigeria have been steady existence, and the subsequent degradation of the nearby environment has produced significant tension between the people living in the region and the multinational oil firms' operating in those areas. For instance, a UNEP report (2011), shows that Shell which is one of the oil producing companies in the country that has been contributing to environmental degradation in the oil region of Niger delta (Ruffin 2012). As a result of this, evident shows that that environmental pollution has produced great damage to the oil areas, touches their main source of economy and subsequently introduced overwhelming acid rain to the land of the oil producing societies. Again, further evidence shows that UN report of 2008 put the life expectancy in the Niger Delta at 44.7 years for men and 46 for women. While in other parts of the country is higher, 46.76 for men and 48 for women (CIA World fact book 2011).

In order to curb these calamities, the constitution of the Federal Republic of Nigeria in 2007 established the national environment standards and regulation enforcement agency (NESREA) with a primary objective of ensuring that, all the companies protect and sustain development of the environment and its natural resources. In addition, in 2011 Nigeria Exchange Group (NGX) also mandated all listed companies to comply with Global Reporting Initiative (GRI). This is a non-profit organization that promotes economic, environmental and social sustainability and provides all companies and organizations with a comprehensive sustainability reporting framework that is widely used around the world. The first version of the guidelines, G1 was launched in year 2000. Subsequently, others followed; G2 (2002); G3 (2006), with updated and complete version (G3.1) in 2011. The G4 is launched in 2013. However, this study makes a scorecard which is grounded on those principles described in GRI (4) guidelines concentrating on environmental prevention expenditure disclosure (EPED), Waste disposal, emission treatment and remediation cost disclosure (WDCD), Prevention and environmental management cost disclosure (PMCD).

Moreover, Suttipun's (2015); Eljayash (2015); Wang et.al, (2023); have been contending how managerial dynamics influence environmental disclosure of manufacturing companies which are basically on the management efficiency. In spite of this, the volumes and outputs of

production are determined by the management, but, the more the volume of production the higher the environmental implications. Meanwhile, poor environmental disclosure can be hinged on the wastefulness on the part of management of the firms' comprising manufacturing firms' as it estimated that managerial efficiency will inform sound environmental disclosure.

Despite these drawbacks, this study investigates, if managerial dynamics can affect the disclosure of the harmful effects of carbon emissions, waste disposal, and other environmental disclosures. While a number of studies look at several types of environmental disclosure determinants, including (Robinson, Rogers, Skinner, & Wellman 2023); (Phung et.al,2023); (Bini et.al, 2023); (Berrone et.al, 2013), Nevertheless, only a small number looked at managerial dynamics in relation to environmental disclosure. Thus, this study investigates management dynamics as a factor in environmental disclosure. In light of this, the goal is to inquire if managerial efficiency influences the environmental disclosures among sectors of listed manufacturing companies in Nigeria.

Review of Related Literatures

Conceptual Review

Heflin and Wallace (2017) view environmental disclosure as the disclosure of specific pollution measures and occurrences toxic waste emissions, oil spills and Superfund sites. Governments everywhere are expected to require corporations operating in different nations to reveal information on air pollution, water pollution, and other environmental hazards that could negatively impact stakeholders. Also, Yahaya et.al, (2022) examine, in more detailed that, environmental disclosure is an active means for putting environmental matters strongly on strategic management's plan, making worthwhile statistics available to enlighten environmental and financial executives for proper policy making, and to strongly show environmental obligation to interested parties. In view of these definitions, this study conceptualizes environmental disclosure as Environmental disclosure is a way for businesses to give back to the community for actions that have a detrimental effect on the environment. In the meantime, environmental disclosure is the responsibility of meeting the company's informational requirements for consumers, shareholders, investors, and other stakeholders.

On the other hand, Ambrosini and Bowman (2009), define managerial dynamic as the processes that help to ensure that the resources or configurations of an organization are congruent with the changing external environment. Also, Teece (2016), conceptualizes managerial dynamic as the process by which a manager turns the product (input) of companies into a good output. Based on these definitions, management allocates resources in an efficient manner. Thus, Sadikoglu and Zehir (2010), define managerial efficiency as the full measure of the combined effect of management, teaming, and leadership skills on corporate productivity. However, this study finds the concept very worthy and views it as the ability of a good manager to turn their input in terms of (property plant and equipment, cost of sales, and operating cost) into an output (revenue). A good manager sets outcome objectives and goals for the productivity and efficiency of a group Teamers achieve results by sharing responsibilities, tasks, and rewards. In light of this, managers are expected to show great care and provide information about things like carbon emissions, water pollution, and noise pollution in order to improve the caliber of their administrative work and meet the needs of stakeholders.

Theoretical Framework

The stakeholder theory, by R. Edward Freeman (1984), as adopted by Sheth (2020), emphasizes the interdependent relationships that exist between a company and its shareholders, investors, customers, suppliers, employees, investors, communities, and other stakeholders in the business. According to the principle, a company should generate value for all parties involved, not just shareholders. Confirming Tkachenko's position; Pervukhina and Zlygostev (2020) think that a company's values should be determined by its stakeholders in addition to its shareholders. The stakeholder theory of corporate governance has to address all aspect of an organization's activities that are grounded in the shareholders' corporation.

Moreover, theoretically, a business can only be considered successful if it generates benefits for the great majority of its stakeholders. Furthermore, it is anticipated by stakeholders that, a company's long-term survival depends on its ability to provide equal value to all of its stakeholders. It is predicated on the idea that companies are only successful when they provide value to the vast majority of the stakeholders. It is closely related to environmental disclosure. This suggests that, creating value involves

more than just making money, and profit cannot be the exclusive indicator of successful companies. Therefore, from all these predictions, the objective of, *to Investigate if managerial efficiency influences the environmental disclosures among sectors of listed manufacturing companies in Nigeria* can be accomplished, managers should use their dynamic position to discharge their responsibilities by making sure information concerning material waste, air pollution, carbon emissions, and waste creation is disclosed so that stakeholders may use it to inform long-term decisions.

Empirical Studies

Although studies emphasize the need of environmental disclosure, little is known about it. The results of Suttipun's (2015) analysis of the factors influencing environmental disclosure in Thai corporate annual reports show a positive correlation between the volume of environmental disclosures and the size of the business. On the other hand, Barako (2007) looks into sustainability reporting and managerial dynamics in Italy. Through annual reports and accounts, data are gathered. Multiple regression analysis and survey research are employed to analyze the information gathered from the yearly report and account. Consequently, the study discovers that the sustainability report's environmental, economic, and social performance is influenced by the managerial effectiveness of universities or other higher education institutions.

To expand on the knowledge in environmental disclosure, Santos, Moura-Leite, Pereira and Pagán (2021) assess environmental disclosure and innovation in the Portuguese manufacturing sector. The study reveals a strong correlation between technological infrastructures and environmental disclosure, but also reveals a negative impact on environmental disclosure. However, Eljayash (2015), also clarifies the financial performance and corporate environmental disclosure of businesses in Libya's manufacturing sector. Utilizing a survey questionnaire, the findings indicate that a company's environmental disclosure significantly affects its financial performance. Wang, Zhang Zeng Meng and Lin (2023), also look at how corporate traits affected the disclosure of environmental information. This study made use of the disclosure book's financial statements from 2007 to 2011, pre-revolutionary years, as well as the annual reports of the 50 busiest companies listed on the Egyptian stock exchange. As a result, there was a substantial

negative correlation between firm age and EID, a positive correlation between firm profitability and EID, and a positive correlation between business financial leverage and EID.

In Nigeria, Aliyu (2019), assesses the impact of business characteristics on the environmental reporting procedures of Nigerian manufacturing companies that are listed. Information was gathered via an annual report. The study's findings indicate that the environmental reporting procedures of Nigerian listed manufacturing enterprises are significantly and favorably impacted by the firm's age, size, leverage, and return on assets. Ndalu, Ibanichuka, and Ofurum (2019) study the innovativeness and environmental disclosure of listed oil and gas corporations in Nigeria, in contrast to this research and Abdulrasheeed (2022). The study discovers a negative correlation between environmental disclosure and board independence. The study's conclusions also show that there is no discernible moderating effect of firm complexity on the association between environmental disclosure and board qualities.

Above all, Oluwatoyin, Agbi, and Mustapha (2021) clarify the sustainability reporting of listed non-financial firms in Nigeria as well as the characteristics of the board. The study looks at how board composition affects listed non-financial companies' sustainability reporting in Nigeria between 2010 and 2018. Consequently, it comes to the conclusion that female directors improve the standard of sustainability reporting for Nigerian listed non-financial companies.

Methodology

Ex-post facto research methodology is used in this study to gather information from Nigerian listed manufacturing enterprises. As of December 31, 2020, empirical data are collected from every manufacturing company registered on the Nigerian Exchange Group. The selection of all listed manufacturing enterprises in Nigeria was supported by the fact that this industry contributes the most to the country's GDP (gross domestic product). Based on Krejcie and Morgan's (1970) sample size determination table, the study's sample size representation is sixty-three (63). However, the study aims to omit fourteen (14) manufacturing firms from the sample size due to the lack of data and the inconsistent listing of several manufacturing companies in Nigeria. As a result, the sample size is subsequently reduced to forty-nine (49) enterprises. The annual reports and accounts of Nigerian listed manufacturing businesses

from 2011 to 2020 provided the data for this study. This is predicated on the notion that yearly reports are easily accessible to a wide range of users. The data are quantitatively analyzed using both descriptive and inferential statistical approaches. Descriptive statistics, including mean, standard deviation maximum, and minimum value, are employed to provide an overview of the sample companies' annual reports and accounts for the years 2011 through 2020. The inferential statistic utilized in this study, the Panel Corrected Regression Error (PCRE), is used since the data are not normally distributed. The following is the model that is employed to test the above listed theories:

EVD = β1ME ε……..

Where:

EVD= Environmental Disclosures.

ME= managerial efficiency.

Nonetheless, the purpose of this study is to measure the following two variables:

Variables	**Construct**	**Measurement**	**Evidence from previous studies**	**A-prior expectation**
Dependent variable (Environmental Disclosure)	**(ED)**	GRI Index (G4) = Total score disclosed Total GRI score index	Nandia et.al (2014) Agnes Pravita et. al (2018);Aifuwa (2020)	+/-
Independent Variable (managerial dynamics)	**Managerial Efficiency (MA)**	<u>Output (Revenue)</u> Input (Cost of Sale + Operating expenses + PPE(introduce)	Dermejer (2012) Panayiotis, (2021)	+/-

Results and Analysis

Prior to evaluating hypotheses, preliminary tests are performed to confirm that the data collected was normal. Kurtosis and Skewness were used in the Normality Test, which was one of the first tests run. However, the early test result reveals that most variables are normally based on skewness, even though most of them are not typically dependent on kurtosis. This is because the majority of the kurtosis values show that the data are not normally distributed, as they are greater than the range of ±1.96. Consequently, as a result of these, this study used Panel Corrected Regression Error (PCRE) as inferential statistics. Also, before data are subjected to

inferential statistics, data were subjected to diagnostics using linearity test, auto, and serial correlation test, heteroscedasticity test, normality test, and Hausman test and the result of normality test using Shapiro-Wilk test indicate that the p-value is significant at 1%. As a result, it is determined that the residuals are not normally distributed throughout the model, which is the null hypothesis. The best linear un-bias estimate (BLUE) can be obtained without the residual distribution and data normality, though, as long as the sample size is larger than 15 observations, according to the Gauss-Markov theorem. Following the initial and diagnostic examination, the following is the outcome of the inferential statistics:

Variable	**Coefficient**	**Significant**
Managerial efficiency	**(0.552)**	**(0.002)**

Re-statement of Hypotheses

The environmental disclosures provided by Nigerian listed manufacturing businesses have no discernable correlation with management success. The listed industrial businesses in Nigeria have a positive association between management efficiency and environmental disclosure, as indicated by the 0.002 coefficient. The statistical insignificance of this link is demonstrated by the P-value of 0.552. Although the parameter is positive and it indicates that higher levels of environmental disclosure are influenced by more effective management, there is no statistical evidence to support the notion that the consequence is insignificant.

Discussion of Findings

Given that the p-value is higher than 5%, this study found enough evidence to support the null hypothesis, according to which there is a significant correlation between managerial efficiency and environmental disclosure of Nigerian listed manufacturing companies. However, the null hypothesis cannot be rejected. The findings, however, are in line with Suttipun et al. (2015) and Heflin et al. (2017), which discover a significant correlation between managerial efficiency and environmental disclosure of listed manufacturing companies in Nigeria. This further suggests that managerial efficiency in terms of input and output is a major factor influencing environmental disclosure of listed manufacturing companies in Nigeria.

This deduction is consistent with the study's presumption and theoretical foundation,

which holds that managerial efficiency, should prioritize consideration of environmental effects such as carbon emissions, environmental hazards, oil pollution, and noise pollution, which are emphasized by the majority of these manufacturing companies in Nigeria. Furthermore, the organization's environmental influence on the surrounding system should be such that it strengthens and encourages the system's ability to support future generations. Furthermore, the study's findings demonstrated that management effectiveness significantly and favorably affects the economic, environmental, and social disclosure of Nigerian listed manufacturing enterprises. This is also consistent with research conducted by Santos et al. in 2021. On the strength of the evidence of this study, its outcome is also in line with the prediction of stakeholder used in by the study which stipulates that management is responsible for acting in the best interest of their stakeholders. Thus, the output of this research indicates that management of manufacturing companies in Nigeria discloses information as related carbon emission, air pollution and other environmental hazardous.

Conclusion and Recommendations

The study demonstrates that although managerial performance is advantageous, environmental disclosure is not much impacted by it. In light of this, the research concludes that the Nigeria Exchange Group (NGX) must ensure that listed manufacturing businesses in Nigeria take managerial efficiency into consideration when evaluating the efficacy of their management. The Nigeria Exchange Group (NGX) is recommended to implement new regulations and controls in order to ensure that all manufacturing companies that are listed provide more information, based on the study's findings and recommendations. Examples of this kind of data include the total amount of water extracted from sources and water sources, as well as the indirect energy used by primary sources for management effectiveness another important aspect of environmental disclosure.

Furthermore, effective management is necessary for sustainable environmental management. Even the term "good management" implies that management isn't always effective. Good management occurs when every source of inefficiency is removed, addressed, or found a solution for. In order to be considered effective, management must be transparent, all-encompassing, and person-centered. It must

be transparent and open. Respecting people's rights to be involved in decisions that affect them is essential. The greatest possible use of the resources that are available, support for the rule of law, and resource mobilization from several sources are the objectives of good governance. Effective environmental conservation and enhancement can only be achieved within the framework of sound management. It is essential to look into possible upgrades that could strengthen Nigeria's environmental governance as an alternative to the current setup.

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