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Moderating Role of Board Composition on the Relationship between Environmental Disclosure and corporate performance of Nigerian manufacturing Quoted Companies

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Abstract

This study is to ascertain the moderating effect of board composition on the relationship between environmental disclosure and corporate performance. Secondary data collected from the published annual reports and accounts of the selected listed manufacturing companies in Nigeria. The study made use of forty-five (45) manufacturing quoted on the Nigerian Exchange Group (NGX) and covers a period of ten (10) years ranging from 2013-2022. Agency theory is used as the foundational theory. Descriptive statistics, correlation and regression techniques were used to analyze the data. The findings of the study show that there is a significant effect of environmental disclosure on ROA of listed manufacturing companies in Nigeria. The study further revealed that board composition significantly moderates the relationship between environmental disclosure and financial performance of the sampled manufacturing companies listed on the NGX. The study recommends for an effective/efficient board composition in companies which will lead to more robust environmental disclosures, thus have a significant effect on corporate performance of companies.

Keywords: Board Composition, Environmental Disclosure, Corporate Performance, Manufacturing Sector, Nigeria.

1.0 Introduction

The corporate world development has created enormous competition among corporate entities operating therein. To enhance survival and sustainable growth of corporate entities amongst competing entities, firms usually pay absolute attention to the aspect of performance generally. The operational corporate business world is quite dynamic in nature, hence boards become a veritable tool for its efficient and effective functioning. The board upholds effective corporate governance and the roles board plays over time has been evolving. Fundamentally, the function of the board is to direct companies in a positive manner considering their top decision-making nature.

Environmental disclosure is beneficial to firms because it reveals the social and ecological values of the firms, hence reducing the tremendous pressure from environmentalists, pressure group as well as promote firms' corporate image. Ali and Kowsar (2013), opined that environmental accounting and reporting provides information on environmental impacts as well as its associated financial impacts. In conformity with the position, Srinivasa (2014), asserted that environmental accounting and reporting information will assist in the realization of environmental transparency, increase accountability and enhance effectiveness as well as promote efficient management of natural resources which are proponents of environmental accounting as well as financial accounting. In view of this, can assert that environmental disclosure or reporting has a link with corporate governance which board attributes is a component and collective they have a link with corporate performance of organization.

The concept of corporate performance is an essential aspect that relates to the way and manner in which available financial resources at the disposal of any organization are meticulously and judiciously used so as to enhance the achievement of the over objective of the organization. Corporate performance is an indicator which measure how well a firm is performing by carrying out business, generating revenues, using its assets and maximizing wealth creation for the owners. It is a measure of the financial wellbeing of the firm. It measures the wellbeing of the overall economy of an entity. It is a corporate function that attract the interest of all stakeholders that have interest in a given organization. The increasing requisite for information among stakeholders with immodesty interests in the financial reportage has led to the need for timely delivery of financial reports in keeping with global best practices (Ojali et al). In the views of Jahun et al (2024), manufacturing companies are involved in activities that impact to the society, hence there is a need for them to take care of their environmental issues and how they are addressed in their annual report and account. Basically, corporate performance is calculated by accounting-based historical measures, such as return on sales (ROS), return on capital employed (ROCE), return on investments (ROI), return on assets (ROA), operational – based measure such as return on equity (ROE) and market-based measures, such as Tobin Q and share price.

Board attributes are essential characteristics of the board. Their nature and composition play important roles in ensuring the efficiency and effectiveness of the board of directors. In their roles as overseer, the board of directors is expected to make thorough scrutiny of firm's strategies, plans, programs and policies before their authorization. According to the position of Brennan (2006), board performance of its monitoring duties is basically influenced by the effectiveness of the board, which in turn is influenced by factors such as board composition and quality, size of boards, duality of CEO/Chairman positions, board diversity and ownership, information asymmetries and board culture.

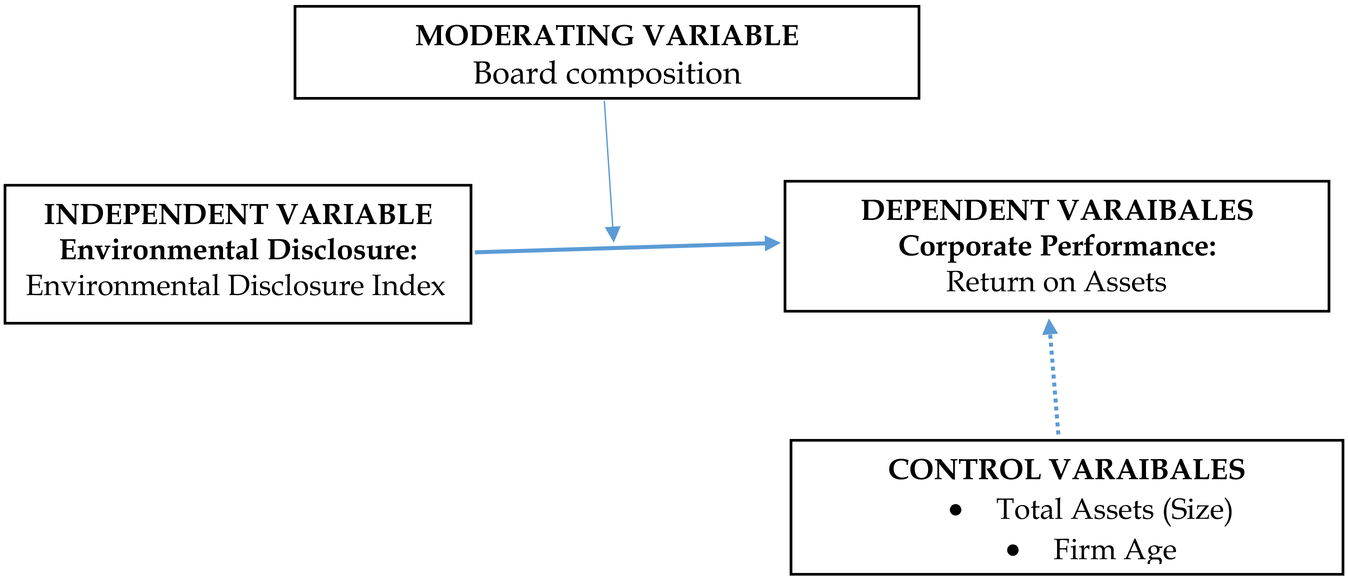
This research work unlike previous one is anchored to further advance the adoption of moderating approach in ascertaining the effect of board composition on the relationship between environmental disclosure and corporate performance. The justification for this approach is largely because despite the enormous interest in the study of environmental disclosure accounting on performance, the researchers observed that there is no available data indicating that previously, studies have been conducted indicating that relationship existed between environmental disclosure and corporate performance and is moderated by board composition.

In the developing economies especially in Nigeria, several studies have been carried out on different aspect of environmental disclosure; for instance, Ndukwe and John, 2015; Ohidoa et al, 2016; Ahmad, 2017 conducted such studies. The results from their various research works were mixed and inconclusive, hence, the need to validate these studies. Fundamentally, the researchers observed that there is no available data indicating that previously, studies have been conducted indicating that relationship existed between environmental disclosure and corporate performance and is moderated by board attributes. This apparently has created practical literature gap which need to be filled.

Flowing the challenges from previous studies as observed, it can be stated that there are problems, hence this study is geared towards solving. Conclusively and with specific problem under consideration, this research work seeks to investigate the moderating effect of board attributes on the relationship between environmental disclosure and corporate performance of listed Nigerian manufacturing firms.

2.0 Literature Review and Hypotheses Development

Conceptual Framework



Theoretical Framework

The theory links the moderating role of board composition on the relationship between environmental disclosure and corporate performance of Nigerian manufacturing quoted companies.

Legitimacy Theory: The legitimacy theory has been used in the research works that have to do with social and environmental disclosure practices. Elijido-Ten (2004) stated that legitimacy theory assists in the provision of adequate social and environmental disclosures, hence the company hopes to improve its overall general public image and profile, thus enhancing its continued existence chances. Supporting the foregoing views, Chelli et al (2014) stated that the performance and survival of a firm in part depend on the support gotten from the environment within which the firm operates. In the views of Deegan and Jeffry (2006), the theory posits that corporate entities have a moral obligation to meet the expectation of the society in which they operate and that when such societal expectation gaps are met, then it would be treated as legitimate when not met such legitimacy would be risky. In view of the theory position, the theory has a link that enhances the importance of board composition on the performance and survival of a firm supportively from the environment within which the companies' function.

Empirical Studies

A lot of researchers have conducted studies on the effect of environmental disclosure and corporate performance. The results from those research works indicated a mix result between environmental disclosure and Ezeagba et al 2017; Ibrahim et al 2023; and Suleiman & Moktar, 2009. (Nor et al 2016 and Malarvizhi & Matta, 2016). Bukar (2022) assesses the impact of environmental accounting on financial performance of quoted companies in Nigerian extractive industry. The study carried out a sampled survey of twelve (12) quoted companies in Nigerian extractive industry and the study used descriptive statistics whereas the hypothesis was tested using ordinary least square (OLS) regression. Secondary (annual financial reports and accounts) sources of data were used and covered a period of five years (2016 – 2021). The results indicated that environmental accounting has a negative influence on financial performance (ROCE and ROA) yet has no significant in effect on them (ROCE and ROA).

Oladeji and Olutola (2022) evaluates social and environmental impact on financial performance of selected listed cement manufacturing firms in Nigeria. The study was for ten (10) years ranging from 2011 – 2020 and it made use of three (3) sample size of listed cement manufacturing firms in Nigeria. The results from the empirical findings indicated that there is a significant relationship between social and environmental disclosure (research and development disclosure) and financial performance.

Jerry, Ayuba & Shadrach (2022) examines the impact of environmental and social disclosure on financial performance of listed oil and gas companies in Nigeria. The research was conducted covering a period of nine (9) years ranging from 2012 to 2020 of listed oil and gas companies in Nigeria. In the results empirically obtained, it was confirmed that environmental and social disclosure have a negative and insignificant effect on both return on assets and return on capital employed, whereas environmental and social disclosure have a positive effect earnings per share.

Uniamikogbo & Ifeanyichukwu (2021) examines environmental accounting disclosure and financial performance of manufacturing firms in Nigeria. The research work covers a period of ten (10) years spanning from 2010 to 2019. The sample size for the study are forty (40) companies on the Nigeria Stock Exchange. The empirical results obtained indicated that there is a significant relationship between environmental accounting disclosure (environmental disclosure index) and financial performance (SP, ROA and ROE) of manufacturing firms in Nigeria.

3.0 Methodology

A quantitative strategy is employed for the study and secondary data was collected through content analysis of published annual reports and accounts of the selected listed manufacturing companies. The population of this research work comprise of Forty-Five (45) manufacturing companies listed on the Nigerian Exchange Group (NGX) as at 31st December, 2022. Data was collected through content analysis of published annual reports and accounts of the selected listed manufacturing companies up to Ten (10) years ranging from 2013 to 2022. This study makes use of descriptive statistics, correlation and regression analysis tools to carry out the analysis.

Model specification and Variable Measurement

In this study, the models of Edem and Noor (2014) and Iyafekhe et al (2020) were adopted and minor modification carried out on them so that they will be in line with this research work. The modified model for the purpose of this research work is presented herewith below:

ROAit = βit+ β1ENDit + β2BCOit + β5TAit + β4FAit + Ɛit …………………….…………………….………... 1

CPit = βit+ β1ENDit + β2BCOit + β3ENDit * β4BCOit + β5TAit + β6FAit + Ɛit ……………..….………..... 2

Where;

CP = Corporate Performance
END = Environmental Disclosure
BCO = Board Composition
TA = Total Assets and
FA = Firm Age
β1 β2… β6 = Regression Coefficient
i = No of firms
t = Time Period
Ɛ = Disturbance or Error term

4.0 Results and Discussion

Descriptive Statistics

Table 1: Result of the Descriptive Statistics

Variables	No. of Obs.	Mean	Std Dev	Min	Max
ED	450	0.4038	.27474	0.10	.90
BC	450	71.67	13.45	38.46	93.33
SIZE	450	459,492,739	1,835,331, 416	203,973	15,1178,720,413
AGE	450	43.99	20.34	3	108

Source: Researchers' Compilation, 2024.

Table 1 shows the descriptive characteristics of the variables. It shows that environmental disclosure index has a mean of 0.4038 and a standard deviation of 0.2747. This indicates that on the average, most of the sampled companies report their environmental issues amounting to 40.38%. With a maximum value of 0.90, it suggests that some companies report up to 90% on their environmental issues while the least report about 10% which is the minimum disclosure index.

The moderating term, board size has a mean of 71.67%. this implies that on the average, the sampled companies have a board composition that is 71.67% independent/non-executive directors on the board of directors. The highest company shows a maximum board composition value of 93.33% while the least has a value of 38.46%. This shows that most of the sampled companies have boards that can actually play their oversight function over the affairs of the operations of their companies in an objective manner that may lead to better monitoring and supervision, culminating to better performance.

For ROA, a mean value of 3.72% implies that the companies on the average have a low return on assets employed in the business but since it is positive, it implies that the management have some degree of efficiency in the utilization of company assets in generating revenue for the companies. A maximum value of this variable is 138.30. This pooled a standard deviation value of 24.89 which makes the companies have huge amount of assets base capable of undertaking social investments.

Table 2: Environmental Disclosure, Board Composition and ROA

ROA	Coefficients	Std Error	Z	p- value
Constant	-6.566	6.310	-1.039	0.299
ED	1.596	0.552	2.891	0.002
ED*BC	0.054	0.026	2.077	0.039
SIZE	0.402	0.806	1.719	0.086
Age	-0.052	0.041	-1.274	0.203
Number of Obs	450			
Prob	0.022			
R -squared	0.182			

Source: Researchers' Compilation, 2024.

Table 2 indicates that environmental disclosure index accounts for only 18.2% of variations in ROA while 81.8% of such variations are accounted for by factors outside this study. This means that environmental disclosure has not accounted for most of the variations in ROA and so it is not a major determinant of financial performance. This conforms with most of the prior studies in this area that reported low to no explanatory power of environmental disclosure and their effect on company performance.

The table also shows that an increase in environmental disclosure by one unit will improve ROA by 1.596units. This implies that environmental disclosure has the ability to influence financial performance of the sampled firms positively. As a major sustainability variable, its positive effect shows that the sampled companies have been carrying out possible environmental protection activities and were not disclosing them properly for enhancing their efficient utilization of assets. This has the potentials of not only making their environment good for business operations but will go a long way in enhancing the safety needs of both their employees and the society as a whole.

When board composition (BC) moderates environmental disclosure, ROA will improve by 5.4%, This helps in strengthening the research agenda that board composition is a powerful weapon that companies should adopt in enhancing their environmental disclosure requirements that can help them remain afloat. As indicated by the statistics, both the stand-alone environmental disclosure index and the combined effect of board composition will together enhance ROA. This also implies that when companies ensure that the non-executive or outside/independent directors dominate the board, their disclosure on the key environmental issues will similarly enhance their financial performance which would be appreciated and rewarded for doing good, being responsible and accountable.

For the control variables, a unit increase in SIZE will insignificantly enhance ROA by 1.402 units. This suggests that bigger companies need to undertake investment in environmental innovations as this will improve their financial performance. The statistical result here has confirmed the study expectation that the bigger the size of the company the more its readiness to spend on other issues. This result has also shown that bigger companies desire to behave socially good in the Nigerian environment as is supposed to be elsewhere.

More so, a unit increase in age will reduce ROA by 5.2%. It is expected that, managers of older companies may be financially disposed by virtue of their long-term existence and corporate will and may be willing to invest outside those activities that may have direct and immediate benefit to them but this has statistically shown to be incomparable with efficiency of assets utilization. Statistically, it is shown here that the older companies grow the less they spend on innovative practices and development. This deviates from the study's expectation that age will be positively related to environmental disclosure.

5.0 Conclusion and Recommendations

This study has empirically examined the moderating effect of board composition on the relationship between environmental disclosure and corporate performance. Based on the findings of this study, the following recommendations are suggested. Therefore, the study recommends for an effective/efficient board composition in companies which will lead to more robust environmental disclosures, thus have a significant effect on corporate performance of companies.

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