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RESEARCH ARTICLE

CORPORATE GOVERNANCE AND ENVIRONMENTAL DISCLOSURES OF SELECTED MANUFACTURING FIRMS IN NIGERIA

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Abstract : The main objective of the study was to examine the impact of corporate governance mechanisms on the environmental disclosures of selected manufacturing firms in Nigeria. Four objectives, research questions and hypotheses were formulated for the study. The study adopted ex post facto research design. The population of the study was listed consumer goods manufacturing companies in Nigeria which were 21 in number. The researcher used convenience sampling technique to selected 12 samples for the study covering the period 2013 to 2020. A model specification was adapted in line with the objectives of the study. Descriptive and regression analysis was carried out on the data set. The findings revealed that board size, board meetings and audit committee all have significant and positive influence on the disclosure of environmental information. It was therefore recommended that an increase in the number of board meetings, board and the number of the directors in the audit committee will continue to strengthen the quest of the stakeholders for increase disclosure of environmental information by manufacturing companies in Nigeria.

Keywords: *Corporate Governance, Environmental Disclosures, Manufacturing Firms, Nigeria.*

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INTRODUCTION

The environment has generated a great deal of concern globally since the last two decades and consequently environmental concerns have attracted a considerable attention arising from the need to ensure environmental sustainability. Of particular emphasis in this regard have been the roles that various stakeholders can play. From the accounting angle, the need for environmental disclosures (ED) can be seen as a response to these concerns about the environment. This has been exacerbated by the growing environmental problems and challenges coming from the impact of corporate activities. In this regard, the role of environmental disclosures has emerged as a result of a concern for the relationship between the organization and the natural environment.

Consequently, environmental disclosures as a concept, is fast becoming a key issue both in the academic and corporate circles.

The advocacy for companies to integrate environmental performance into their financial performance model has been a key driver for several initiatives encouraging companies to become more environmentally responsible. In response, companies have begun to intensify their environmental performance initiatives across several dimensions. However, the depth and quality of these initiatives is still very debatable and varies considerably from firm to firm, industry to industry and even from county to country.

The task of corporate governance in settling dispute between internal and external investors has been considerably examined and various works submitted that corporate governance influences supervisory role of management and the conduct of companies. Corporate governance mechanisms are principles and procedures designed by management to regulate operations of firms to attain its objectives.

Disclosure of environmental performance in a separate report is to reflect the level of accountability, responsibility, and corporate transparency to investors and other stakeholders [1]. Environmental disclosure is important because the public can monitor the activities undertaken by the company in order to fulfil its social responsibility through environmental disclosure in the annual report of the company. In this way the company will benefit from the positive attention, trust and support of the community. Based on these opinions, environmental disclosure can help companies in getting support and capital from stakeholders and investors. In addition, it can also be used to assess the impacts or risks that may be incurred by the company's operations and reduce the impact of company activities on the environment created around by the company so that the image of the company both internally and external can be improved [2].

The activities of manufacturing companies have affected the environment [3], and there is no doubt that they have played a major role in the damage caused to the environment. In fact, it has been claimed by researchers that factories are to be blamed for as much as 2/3rds of the pollution that has caused climate change. As a result of the pollution that is created from toxic and dangerous materials into our environment, not only does the planet's ecosystem come under threat, but the health of the stakeholders is potentially at risk too. Industrial factories have played a big part in the amount of air pollution that we as a people are suffering.

The toxic gases that factories release into the air, combined with those added by automobiles on the road, contributes to an increase risk of developing chronic respiratory disease such as, lung cancer, heart disease and many other illnesses, diseases and conditions. Factories are also a major contributing factor to water pollution across the globe. The illegal dumping of contaminated water, gases, chemicals, heavy metals or radioactive materials into major waterways causes damage to marine life and the environment as a whole. From the foregoing, it is very clear that there is need for accountability by the companies on their impact on the environment.

Several empirical research works have been conducted on corporate governance and environmental disclosure. However, there is a knowledge gap in the manufacturing sector in Nigeria, with particular reference to the consumer goods industry where a lot of domestic and environmental waste is generated. Non-disclosure has a negative impact on businesses' ability to compete, on their ability to access local and international investors for funding, on employee satisfaction, on public interest, and on their ability to maintain a positive reputation.

Therefore, the focus of this research work was to assess the effect of corporate governance on environmental disclosure of select manufacturing firms quoted in Nigeria Exchange Group while attention was concentrated on the determination of the extent to which board size, board meetings and audit committee have affected environmental disclosure of manufacturing firms in Nigeria.

Research Objectives

The main objective of the study was to examine the impact of corporate governance mechanisms on the environmental disclosures of selected manufacturing firms in Nigeria. The following were the specific objectives;

- To examine the effect of board size on the environmental disclosures of selected manufacturing firms in Nigeria
- To assess the effect of board meetings on the environmental disclosures of manufacturing firms in Nigeria
- To ascertain the effect of audit committee on the environmental disclosures of manufacturing firms in Nigeria.
- To evaluate the composite impact of corporate governance on the environmental disclosures of manufacturing in Nigeria.

Research Hypotheses

The following research hypotheses were formulated for the study;

Ho_1: There is no significant effect of board size on the environmental disclosures of selected manufacturing firms in Nigeria.

Ho_2: There is no significant effect of board meetings on the environmental disclosures of manufacturing firms in Nigeria.

Ho_3: There is no significant effect of audit committee on the environmental disclosures of manufacturing firms in Nigeria. Ho_4: There is no significant effect of corporate governance on the environmental disclosures of manufacturing firms in Nigeria.

The scope of this study focused on the impact of Corporate Governance on the environmental disclosures of selected manufacturing firms in Nigeria. It covered period of Eight (8) years for twelve (12) quoted companies in the Nigerian Stock Exchange Daily Official List from 2013 to 2021.

LITERATURE REVIEW

Conceptual Framework

Corporate Governance

Corporate governance is a concept that emerged following the growth of corporations in the 20th century, and in particular, following the stock market crash in 1929, which led scholars to argue for corporate governance mechanisms that would allow shareholders to keep companies in check [4]. A lot of scholars however attribute the considerable interest in corporate governance practices in modern corporations to the high-profile collapse of a number of large firms in the US such as the Enron Corporation.

Corporate governance is simply defined as the acceptance by management of the alienable rights of shareholders as the true owners of the corporation and their role as the trustees on behalf of the shareholders [4]. A report by World Bank [5] defines corporate governance as the structures and processes for the direction and control of companies; in order words, corporate governance concerns the relationship amongst the management, board of directors, controlling shareholders, minority shareholders and other stakeholders.

The scandals that rocked the US economy in the early 2000s led to a call to improve corporate governance. Much of the Sarbanes–Oxley Act of 2002 concerns was to change the structure and responsibilities of corporate boards, committees and officers . The primary objective of SOX is to improve the financial accountability of firms. Whether a corporate governance structure designed to meet SOX can improve environmental performance and disclosure is subject to further investigation. The investigation is a natural extension from the ongoing debate between voluntary disclosure and legitimacy theory.

Despite the pronounced financial focus of the SOX-driven corporate governance structures, an argument can still be made that the purpose of Sarbanes–Oxley was to improve corporate accountability of firms that were deficient in this. Reporting on the influence that the organisation has on the community is a component of good governance and accountability [6]. This perspective on the right to know for the community includes information regarding pollution. This category should include disclosure of releases of pollutants, especially those that may pose an urgent risk to the community.

Corporate governance is a system and mechanism used to regulate, direct, and control the company's operations under the expectations of the stakeholders. Wahyudin and Solikhah [7] argue that corporate governance can generate goodwill and investor confidence. Suhardjanto and Permatasari [8] stated that there are two important concepts in CG, namely (1) the rights of shareholders to obtain information correctly and timely, (2) the company's obligation to disclose information about company performance, ownership, and stakeholders accurately, timely, transparently. Qu and Leung [9] argue that corporate governance concerning transparency is the availability of company-specific information for those outside the public company and must go hand in hand with accountability.

Corporate Governance Mechanism

Board Size: According to Allegrini and Greco [10], board size can be seen as a crucial corporate governance mechanism that may influence the level of corporate voluntary disclosure, including environmental disclosure [11]. On the other hand, both the theoretical and empirical literature provides contradictory explanations regarding the relationship between board size and environmental disclosure.

From the agency theory perspective, a greater number of directors on the board may contribute to its monitoring effectiveness, since larger boards provide diversity in terms of expertise and more capacity for monitoring management [12]. Furthermore, Elzahar and Hussainey [13] stated that the increased board size may lead to an increase in the number of directors who have a financial or accounting background, which could have a positive influence on corporate environmental disclosure. Consistent with these arguments, the results of the empirical studies such as Janggu *et al.* [14], Ntim *et al.* [11], documented a positive relationship between the board size and the level of disclosure.

Contrary to these suggestions, Jensen [15] argues that larger boards are less likely to be effective and easier to be controlled and manipulated by the CEO than smaller boards [16]. In a similar vein, it is suggested that as the number of the directors on the board increases, the monitoring capacity of the board also increases, but this benefit may be outweighed by the incremental cost of poorer communication and a slower decision-making process. Furthermore, Kathyayini *et al.* [17], state that decisions related to the content and extent environmental information disclosure need effective communication and coordination among board members.

Because of these reasons, a negative relationship between board size and the level of environmental disclosure can be expected and this argument is supported by the results of the empirical studies such as Uwuigbe *et al.* [12] and Bouaziz [18].

Board size refers to the total number of directors in the Board [19, 20] both large and small board size has its advantages and disadvantages. Advantages of large board size include larger pool of expertise and experience [21], better links which improve the companies' access to resources corporate performance, and corporate capital structure.

The notion of separating leadership roles in a manner consistent with agency theory was not supported. For instance, the notion that powerful CEOs (duality role, CEO being the promoter, and CEO being the only board manager, greater voluntary disclosures of information and more effective monitoring of powerful managers [22].

Large board size, on the other hand, has its disadvantages too. Large board size increases cost and arguments in the boardroom [22], diminish performance [16] political, regulatory, and economic forces have been changing the worldwide economy in a fashion comparable to the changes experienced during the nineteenth century Industrial Revolution. As in the nineteenth century, we are experiencing declining costs, increasing average (but decreasing marginal and increases the time taken to approve management proposals [23].

These disadvantages may result in reduction of profits. As commented by Jensen [16] political, regulatory, and economic forces have been changing the worldwide economy in a fashion comparable to the changes experienced during the nineteenth century Industrial Revolution. As in the nineteenth century, we are experiencing declining costs, increasing average (but decreasing marginal, board size above seven or eight person are less likely to function effectively. Nonetheless, the optimal board size is still inconclusive and there is no ideal size for a company's board.

Board Meetings: Board meeting is one of the initiatives by the board to perform its oversight function on the management (agent); this is in tandem with the agency theory in which the board members act as the principal. BM serves as a platform to share knowledge and information among experts. This is a crucial and critical resource for the organization.

Prior studies suggest that frequency of the BMs is credited to the number of meetings held annually by the board of directors. As indicated by Chen *et. al.* [24] BM recurrence reflects sound checking systems. Thus, implies that board practices if carried out by the recurrence of meetings influence the capacity of the board to scrutinize reports to reduce agency problems and improve more quality disclosures [25, 26].

Increase scrutiny and monitoring by board decrease agency cost and information asymmetry and invariably improve quality disclosures [27]. Board meeting has a significant relationship with corporate environmental disclosures. More board meetings can increase the performance of company since many activities can be planned and more issues can be resolved during board meetings [28]**.** Their argument is based on the agency theory that more board meetings which are organised properly can increase communication of information as they have more time to discuss the issues related to additional information such as environmental activities and disclosure. A board meeting is recognised as a significant component of effective corporate governance.

According to the agency theory, board meeting frequency may affect firm performance. Increased meeting frequency promotes idea sharing, performance disclosure, and debate to resolve agency problems. The minimum number of meetings is not prescribed, it would be in the company's best interest for the board to meet regularly (i.e., at least five meetings if not more frequently as circumstances dictate). Prior research has indicated that frequent meetings improve the board member organisation and communication as a part of the governance mechanism [29, 30].

Board meetings clarify any ambiguity and establish shared beliefs, expectations, and values, thus improving firm performance and efficiency [31]. Standardisation of knowledge can be accomplished through frequent meetings, providing an opportunity to discuss both strengths and weaknesses affecting the firm's earnings [29]. Amin *et al*. [32] argued that regular board meetings signal to stakeholders that the company is underperforming, requiring an outside director to monitor the firms closely.

Wang e*t al*. [33] were pessimistic about the board meeting. As it turns out, their research showed that board meetings have a detrimental effect on firm performance. As a result, firms are hosting more frequent meetings to deal with issues due to low performance. Additionally, effective board meetings typically alert stakeholders to problems or conflicts in the business operation. Due to these divergent views on the nature of board meetings, it appears as though the question of whether board meetings can potentially have a beneficial governance effect on firm success is an open one.

Chou *et al*. [27] discovered that board meetings are associated with firm performance because they help the board monitor and supervise its activities while protecting shareholder wealth. Similarly, Vafeas and Theodorou [34] found an association between board activity and corporate performance, as measured by the frequency of board meetings. However, a study conducted by Azar *et al.* [35] found that the frequency of board meetings negatively correlates with financial performance, as measured by Tobin's Q. Ordinary Least Square (OLS) regression to determine the association between board meeting frequency and CSR reporting.

They found that the frequency of board meetings is not associated with CSR reporting. As a result, this study examines the interaction effect of board meetings and environmental and social disclosure on firm performance, which may help open the black box between information disclosure and firm performance.

Audit committee: An audit committee is an important tool in improving the organizational situation and independence of internal auditing. The audit committee is forecasted to be an informed, wise, and constructive superintendent of the financial reporting process [36]. Bromark and Hoffman [37] stated that the key reasoning of the setting up of the audit committee is to facing the permanent defiance's of business environment, also to assist the board of directors and management to deal with those challenges. They also added up the following challenges' as (1) Extend concern regarding company ethics. (2) The rising complexity of accounting standards, transactions, and regulatory requirements. (3) A call for fair disclosure of the quality of the firm's earnings and financial position, and the consequences responsibility of management and the board for complete and fairly disclosure of financial conclusions. (4) Globalization of markets, which has opened new opportunities, increased rivalling and created massive inflation of the information required to make informed decisions. (5) Broadly use of information technology, including microcomputers and networks, satellite transmission, and the input of electronic data interchange, all of that has changed internal control systems.

A core role of the audit committee is to help the board of directors in overseeing the company's reporting policy. Khlif and Samaha [38] pointed out that the audit committee acts a critical role in meeting investors' needs for relevant, clear, and full information. As a control tool over top management, further, an audit committee assured that there is increased voluntary disclosure to permit an accurately assess of top management's decisions and behaviours and align management and shareholder interests. The Smith Report [39] also, verify that the audit committee acts a crucial role in observing board activities by optimizing the quality of disclosed information and ensuring the protection of shareholder interests through the release of price-sensitive information. Therefore, the audit committee is anticipated to improve corporate reporting policy.

The audit committee oversees the quality of financial reporting in a company; the audit committee should control a company's basic financial reporting and support the auditors in their encounters with the company management on the audit findings. Prior research has examined the benefits of a strong audit committee such as financial expertise, independence, meeting frequency, and audit committee size on a company's performance and audit quality.

Environmental Reporting (Disclosures)

CIMA [40] defines environmental reporting as the public disclosure of information concerning an entity's environmental performance and it makes organisations appear more accountable for the economic, environmental and social consequences of their activities. Environmental reporting can also be defined as public disclosure by a firm of its environmental performance information, similar to the publication of its financial performance.

Environmental reporting represents the degree in which the company discusses its emissions, energy sources and consumption, environmental incidents and violations, materials use, mitigations and remediation, waste produced and water used. It also includes the use of life cycle analysis, environmental performance and stewardship of products, and environmental performance of suppliers and contractors [41].

Corporate Environmental Reporting can be defined as an umbrella term that describes various means by which companies disclose information on their environmental activities to the users. This should not be confused with corporate environmental reports, which represents only one form of corporate environmental reporting. A Corporate Environmental Report is a tool to communicate a company's environmental performance. Corporate environmental reporting is the process by which a corporation communicates information regarding the range of its environmental activities to a variety of Stakeholders including employees, local communities, shareholders, customers, government and environmental groups.

The development of social and environmental accounting and accountability practices is still in its infancy (for example compared to the long historical practice of financial reporting). There is still much debate on various issues. Corporate Environmental Reporting (CER), as a recognized sub-set of corporate reporting, is now a decade old. The emergence of corporate environmental reporting in the 1990's has been an important development, not only in terms of environmental management, but also more generally for overall corporate governance.

At present, the subject of environmental reporting is gaining prominence as a "hot issue" in the financial reporting community. It also becomes an international phenomenon and as result many companies especially those with a high public profile or perceived environmental impact have felt increasingly obliged to report externally to stakeholders on their environmental performance. Ultimately, the companies in different countries have started the practice of making environmental disclosure in their annual reports.

Environmental disclosure means that a firm is obligated by law to include environmental information in annual reports, either voluntarily or statutorily. Environmental disclosure also communicates relevant information to stakeholders and society as a whole as a result of the company's actions as they influence the environment. Environmental disclosure is information that is presented to analyze a company's environmental conduct and the economic consequences of that activity. It includes both financial and non-financial information. Environmental disclosure is defined by Ejoh, Orakand & Sakey [42] as a set of information about a company's past, current, and future environmental operations. Environmental disclosure. According to Ong, Tho, Hoh Thai, and The [43], is a declaration that demonstrates a company's environmental efforts, such as the company's aims, environmental policies, and environmental consequences, which are documented and publicized annually to the general public. Environmental disclosure.

According to Dibia and Onwuchekwu [44], aids corporations in capturing public opinion of their operations. Because of the importance of the environment and the devastating impact of companies' activities on the environment, environmental disclosure serves as a medium of communication between the company and stakeholders. Disclosure is required because of the importance of the environment and the devastating impact of companies' activities on the environment [45].

According to the above authors, environmental disclosure refers to information regarding environmental actions that occurred in the past, present, or future, and should be revealed to the public on an annual basis. This data might be in the form of financial and non-financial data, and it can be quantitative or qualitative. Environmental disclosure refers to all information on the environment that is reported or made available in the annual report of the company. Environmental disclosure has been quantified both quantitatively and subjectively using content analysis and the environmental disclosure index.

According to a study of the literature, several studies measured environmental accounting disclosure using both quantitative and qualitative methods. Both methodologies were utilized by researchers such as Abubakar, Moses, and Inuwa [45], Adams and Busola [46], Ong *et a*l., [47] to measure environmental accounting disclosure of companies. The use of objective and systematic counting and recording processes to provide a description of the content in text.

According to Ong *et al.*, [43], the quantity of environmental accounting disclosure can be quantified using content analysis, which is regarded as the most widely used technique in prior studies. It can be quantified in terms of the number of words, sentences, and pages.

Annual reports of companies contain both financial and non-financial data; financial data may be easily analyzed using financial ratios, while non-financial data can be interpreted using a research tool called content analysis [46].

Darwish [48] defined environmental disclosure as a set of information items related to the performance and activities of the environmental management of the company and its past, present, and future financial implications. Previous studies have also indicated an increase number of companies that disclose environmental information in their annual financial reports to achieve the desires of investors and other stakeholders.

Therefore, this led to an increase in the content of the disclosure of environmental information from a paragraph in the annual report to the preparation of independent environmental reports published by companies on their websites or in printed paper.

This disclosure takes many of the descriptive forms such as data, quantitative facts, figures, and notes about the financial statements. The economic and social developments and the emergence of international markets have played an important role in increasing the importance of disclosure and expansion especially after the accounting information has become a major source of decisions for customers in these markets. In addition, it also helps the owners and other parties such as consumers, investors, consumer protection agencies, the environment, and public opinion in making decision.

According to Ja'far and Arifah [49] most modern companies in the industry are fully aware that environmental and social issues are also an important part of the company in addition to his business for profit.

As part of the social order, the company should report the environmental management of his company in the annual report. This is because it is associated with the three aspects of sustainability issues, namely the economic, environmental and social performance.

This study used the GRI (Global Reporting Initiatives) standard for measuring corporate environmental disclosure (CED). GRI provides to all companies a comprehensive sustainability reporting framework that is used throughout the world. (www.globalreporting.org). The model in Figure 1 conceptualized the topic.

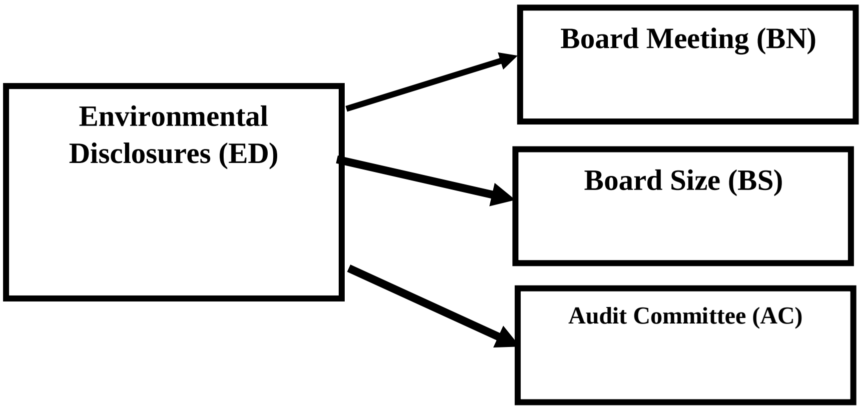

Figure 1: Conceptual model specification

Source: Researcher's Conceptualization (2022)

Theoretical Framework

Agency Theory [15]

Agency theory explains the relationship between the owners (shareholders) and management, in which owners appoint management to serve best on their behalf [15, 50]. However, a conflict exists regarding the goals of the owner and agent due to managers' inclination toward controlling business policy and strategy to enhance their short-term interests, rather than to make long-term decisions. Agency theory is also defined in terms of monitoring and incentives, a board is responsible for monitoring the top management's environmental policy, strategy, investments, and reporting. Thus, the ESRP significantly relates to the firm's long-term decisions and investments in environmental initiatives as enacted by top management.

However, this management may be reluctant to incur expenses, such as R&D expenditures, unless these ensure an immediate financial benefit; management more commonly focuses on short-term investments that will enhance both financial and nonfinancial opportunities [51]. Moreover, ESRP is considered as an opportunistic, transparent and credible mechanism to reduce information asymmetry between agents and owners. Existing agency conflicts regarding environmental decision can be mitigated by ESRP practices as well as utilizing stakeholder's advocacy by the management [52]. Therefore, managers' incentive to engage in environmental disclosures would be larger when corporate governance is stronger.

Prior literature also indicates that owners with significant shares of a firm are more likely to spend their time on managerial performance evaluations [53,54,55]. Alternatively, a board's outside directors represent shareholders as well as varied stakeholders by closely monitoring the firm's environmental policy, regulations, and performance [55].

Thus, the strong presence of a board of directors can reduce the agency problem by the monitoring, supervising, and controlling of management's short- and long-term interests and goals regarding environmental disclosures [11,56, 51].

Therefore, environment disclosures is the process of social and organizational engagement that differ across the country and organizational management uses it communicating with any circumstances mitigating agency conflicts as well as cost.

Stakeholder Theory

Stakeholder theory is a theory that explains the relationship between the company and its stakeholders. A company is not only responsible to the owners (shareholders) but also to the stakeholders.

The company's survival depends on the support of stakeholders and support should be sought so that the activity of the company is to seek the support. The more powerful the stakeholders are, the greater the company's efforts to adapt. Social disclosure is considered as part of the dialogue between the company and its stakeholders [57].

Stakeholder analysis helps in making rankings, which organization stakeholders should be prioritized to be given information as part of its accountability to those groups [58]. The purpose of the stakeholder theory is to help corporate managers understand their stakeholder environment and to manage more effectively within their corporate environment. However, the broader objectives of stakeholder theory, is to help company managers to increase the value of the impact of their activities, and to minimize losses for the stakeholders.

Stakeholder theory explains the relationship between management and other stakeholders, including creditors, employees, suppliers, auditors, regulators, the media, NGOs, investors, the government, customers, activist groups, national and international donor agencies, and shareholders. As different stakeholders pressure firms for better environmental performance, investment, policies, and strategies, environmental disclosures can bridge stakeholders and management [59]. Organizations' financial and nonfinancial performances assure sound and faithful relationships between stakeholders and management. Further, environmental reporting has been used as a significant medium for organizations reporting an ecological responsibility to society and various stakeholders in both general and specific formats.

Social and environmental disclosure increases corporate transparency, reputation, and trust to the stakeholders. Alternatively, national and international environmental activist groups encourage firms to invest in the pollution technology, environmental technology transfer, and environmental diversity fields; in environmental management systems; and in the proper utilization of natural resources [60]. A strong board mitigates these pressures by ensuring ESRP in their communications with stakeholders through annual or integrated reports, standalone sustainability and CSR reports, websites, and brochures. As suggested by GRI and KPMG, CSR and ES reporting is rapidly increasing, and researchers note this occurs because of different stakeholder group pressures. Therefore, environmental disclosure practices reduce information gap regarding environmental policy among the stakeholders. The present study is anchored specifically on the stakeholder's theory.

Empirical Review

Oyekale, Olaoye and Nwaobia [61] investigated the impact of corporate governance on environmental sustainability disclosure of non-financial companies quoted in Nigeria. *Ex-post facto* research design was adopted for the study. The population was 109 non-financial companies quoted in Nigeria as at 31 December, 2020. Stratified and purposive sampling techniques were used to select a sample of 72 non-financial companies that were in existence for a period of 9 years, 2012 to 2020. Data were extracted from published annual reports of the sampled non-financial companies and validated by certification of external auditors and the Nigerian Stock Exchange. Data were analyzed using descriptive and multiple regression analysis.

The researchers found that the combined effect of corporate governance (CG) had a significant effect on environmental sustainability disclosure (END) (*Adj.* R^2= 0.1783, F (6, 641) = 170.58, ρ = 0.00). The separated effects were varied. Board Independence (BOI), Nomination Committee (NOC), and Sustainability Responsibility Committee (SRC) have a positive and significant effect on END (BOI=0.0031, t-test=5.28, ρ = 0.001; NOC=0.1391, t-test=3.50, ρ = 0.008; SRC=0.6165, t-test=6.68, ρ = 0.000). Risk Committee (RIC) and Remuneration Committee (REC) have a positive and insignificant effect on END (RIC=0.0519, t-test=1.61, ρ = 0.147; REC=0.0083, t-test=0.020, ρ = 0.849) while Board Meetings has a negative and insignificant effect on END (BOM=-0.0016, t-test=-0.27, ρ = 0.792). The study concluded that corporate governance enhanced environmental sustainability disclosure of non-financial companies quoted in Nigeria. It was recommended that management should institute sound corporate governance mechanisms, especially a sustainability responsibility committee to enable improved environmental sustainability practices and their disclosure.

Ukpong [62] investigated the moderating effect of CEO educational qualification on the relationship between corporate governance attributes and corporate social responsibility (CSR) reporting of listed non-financial companies in Nigeria using a time frame of ten years (2011-2020). The variables under study are; board size, board independence, board gender diversity, board ownership, moderated with CEO educational qualification and its effect on corporate social responsibility reporting. In this study, ex-post facto research design and descriptive research design on a panel data set which were sourced from annual financial report of seventy-three listed non- financial companies in Nigeria were employed.

Furthermore, two econometric models were specified and the study hypotheses were listed using binary logistic regression analysis and moderated binary logistic regression analysis (MBLR) technique. Specifically, the probability values, (p-values) for the regression output formed the basis for decision on the statistical significance of the coefficients obtained for each tested hypotheses. The result revealed that CEO educational qualification has a significant moderating effect on the relationship between board independence and CSR reporting in Nigeria.

Further outcomes obtained from the regression analysis revealed that CEO educational qualification is not a significant moderator in the relationship between board size, board gender diversity, board ownership and corporate social responsibility in Nigeria during the period under review. It is recommended among others, that strong emphasis should be given to simultaneous policies that consider improved board independence together with hiring a CEO with more educational qualification.

Odoemelam & Okafor [63] investigated the influence of corporate governance on environmental disclosure of non-financial firms listed in Nigeria Stock Exchange (NSE), anchoring on "Trinity theory" (agency, stakeholder and legitimacy theories). 86 firm-year observations across 86 companies listed in Nigeria Stock Exchange (NSE) using content analysis, cross-sectional data, OLS regression techniques were used to analyze the influence of board characteristics on the extent of overall environmental disclosure (OED).

The results show that board independence, board meeting, and the environmental committee were statistically significant while audit committee independence and board size were insignificant. Among the three company attributes used to mitigate spurious result only firm size significantly influence the quantity of overall environmental disclosure of the sample companies. Auditor type "big 4" (Ernest Young, Deloitte, KPMG, and PwC) and industry membership show insignificant relation to environmental disclosure.

The findings indicate that the level of environmental disclosure of non-financial companies in Nigeria is quite insufficient at an average of 10.5 percent. It is not surprising that environmentally sensitive industry and auditor type had no significant influence on the extent of environmental disclosure. This buttress the point that the environment the companies operate is institutionally and legally weak. Hence it calls for improvement on environmental law and implementation as well as harmonized environmental reporting infrastructure and standard to aid comparison.

Solikhah and Maulina [64] investigated the quality and scope of environmental disclosure (ED) in environmentally sensitive manufactures. It also analyses the effect of media coverage, environmental award, and financial performance on the quality of environmental disclosure and the extent to which the implementation of corporate governance (CG) principles in moderating these factors.

This study used 135 manufacturing companies listed in the Indonesian Stock Exchange during 2012–2016. Partial least squares–structural equation modelling (PLS-SEM) has been employed to test the research hypothesis. The results point out that media coverage and awards associated with the quality of environmental disclosure.

The media coverage and environmental awards can improve the quality of environmental disclosure and the correlation will increase if the company pays attention to the implementation of CG principles. This finding supports a comprehensive view of corporate governance which includes disclosure.

Empirical findings indicate that external pressures such as media coverage and competitions lead to an appreciation that can increase voluntary environmental disclosure, therefore, highlighting the central role of community engagement, media, and non-governmental organizations. Government supervision is important in ensuring the implementation of environmental disclosure that aligns with applicable regulations.

Ndalu, Ibanichuka & Ofurum [65] investigated the relationship between board characteristics and environmental disclosure of quoted oil and gas firms in Nigeria: The moderating role of firm size with its specific objectives such as to determine the relationship between board independence and environmental disclosure. The research design adopted was ex-post facto design while, the population and the sample size for the study is the 12 quoted oil and gas companies in the Nigerian Stock Exchange (NSE).

Secondary data were used in this study and data were analyzed using both descriptive, inferential statistics and Pearson Correlation Coefficient Statistical tool complementarily with the aid of Statistical Package for Social Sciences version 23.0 to test the null hypotheses. The findings of the study reveal that board independence has a negative relationship with environmental disclosure. The findings of the study further indicate that firm size significantly moderates the relationship between board characteristics and environmental disclosure.

Based on the findings, the study recommends that independence should be assessed by weighing all the relevant factors that may compromise independence while the classification of directors as independent or otherwise in the integrated report should be done on the basis of assessment. Finally, increase in total asset is required as firm size was identified as a moderator variable between board characteristics and environmental disclosure.

Ika, Nugroho, Achmad & Widagdo [66] empirically examined the impact of corporate governance practices on environmental reporting. The corporate governance characteristics utilized in the study are audit committee effectiveness, board size, and ownership concentration, while size and profitability were the control variable of the study. One hundred and two manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2017 were used as a sample, resulting in 306 company observations. Employing data panel regression analysis, the results indicate that audit committee effectiveness and board size positively influence environmental reporting.

These results suggest that the more effective the audit committee is, and the higher the number of commissioners in the company, the higher the company's encouragement to provide environmental information in the company's annual report. The study also found that size positively associate with environmental disclosure. The study offers additional perspectives on factors that can affect the listed companies to report environmental reporting within the G4 environmental framework of the Global Reporting Initiative (GRI). Hence, the capital market authority agency may strengthen the regulation related audit committee to improve environmental awareness in IDX.

Solikhah, Puteri, Sarwono, Ulupui, & Al-Faryan [64] analysed the effect of company size, financial performance, and environmental performance on environmental disclosure using good corporate as the moderating variable. By using the purposive sampling technique, the final samples of the research are 23 companies from top 45 listed companies in Indonesia during the period of 2011-2016. Data were analysed with SEM by using Smart PLS 3.0 software.

The result showed that the company size and environmental performance have a significant positive effect on the environmental disclosure. Conversely, the effect of financial performance on environmental disclosure is negative. Good Corporate Governance moderates the effect of company size on environmental disclosure. Nevertheless, good corporate governance does not moderate the effect of financial performance and environmental performance on environmental disclosure.

Based on the results, top 45 companies in Indonesia are still low in reporting their environmental performance. The practical implication from this study, the authorized bodies should encourage the company by providing education and supervision on the implementation of existing regulations to increase the environmental disclosure.

Abazu & Okoye [67] analyzed the effect of corporate governance on environmental disclosure of listed construction firms in Nigeria. The broad objective is to evaluate how corporate governance affected environmental disclosure on listed construction firms in Nigeria between the periods of 2010-2018. Panel Least Squared (PLS) method of data analysis was used. Secondary sources of data were employed; the interested variables were sourced from the annual report of the quoted construction firms.

The following variables were employed: environmental disclosure as the dependent variable, while board meeting, board gender diversity, board size, and board independence were the independent variables. The study employs descriptive statistics, correlation and regression analysis in the analysis. From the analysis result the study found that Board size was positively and significantly related to environmental disclosure. Board meeting was found to have a positive and statistically significant on environmental disclosure. Board gender diversity (BGD) has a positive effect and significant relationship with environmental disclosure.

The researcher recommends that Board size should be increased to up to 7 members for improved quality and quick decision making in relation to environmental disclosure. Nigeria construction firm should ensure that their board is composed of independent persons, with high level of integrity that can match words with action to improve their environmental disclosure. Board meeting should be ignored since it has insignificant effect on environmental disclosure of quoted construction firm in Nigeria.

Furthermore, other studied the association between corporate governance and environmental practices disclosure in 361 United States' companies. They discovered that corporate governance mechanisms are positively related to environmental sustainability disclosure. Baje, Yemenu, & Surur, [68] examine the motivational factors influencing social and environmental reporting from large tax payers in Ethiopia.

An explanatory research design through quantitative research approach was employed by using both primary and secondary data source which was collected from 262 sampled firms in 2018. The regression result revealed that firm age, size, profitability, board size and industry sensitivity had a positive and significant influence on social and environmental reporting, whereas, leverage had a negative and significant impact on social and environmental reporting.

This result implied that beyond the voluntary nature of Ethiopian companies' social and environmental reporting, they have been using their reporting to legitimize their position in the society.

METHODOLOGY

Research Design

The researcher used the *ex-post facto* design. The design was chosen because the ex-post facto design involves the use of secondary data [69]. The study population was the listed manufacturers of consumer goods companies in Nigeria. As 4 pm on the 6th of October, 2022, there were 21 listed consumer goods companies on the floor of the Nigeria Exchange Group.

The researcher adopted the convenient sampling technique. This involves the selection of few samples from the population based on the judgement of the researcher which is the availability of data. Thus, the sample size of the study was 12 manufacturing companies. The selected companies are listed as follows; The data required for the study was secondary data. The data were extracted from the financial statements of the selected companies through content analysis. The required data were board size, number of board meetings, audit committee size and environmental disclosures.

Measurement and Description of Variables

Table 1: Sample size of the study

S.No.	Company	Ticker	Sector	Date Incorporated
1	Cadbury Nigeria Plc.	Cadbury	Consumer Goods	09-Jan-65
2	Champion Brew. Plc.	Champion	Consumer Goods	31-Jul-74
3	Dangote Sugar Refinery Plc	Dangsugar	Consumer Goods	04-Jan-05
4	DN Meyer Plc	Dunlop	Consumer Goods	21-Oct-61
5	Flour Mills Nig. Plc.	Flourmill	Consumer Goods	29-Sep-60
6	Guinness Nig Plc	Guinness	Consumer Goods	29-Apr-50
7	Honeywell Flour Mill Plc	Honyflour	Consumer Goods	09-Jul-85
8	International Breweries Plc.	Intbrew	Consumer Goods	22-Dec-71
9	Mcnichols Plc	Mcnichols	Consumer Goods	26-Apr-04
10	N Nig. Flour Mills Plc.	Nnfm	Consumer Goods	29-Oct-71
11	Nascon Allied Industries Plc	Nascon	Consumer Goods	30-Apr-73
12	Nestle Nigeria Plc.	Nestle	Consumer Goods	25-Sep-69

Source: Researcher's Computation (2023)

The data required for the study was secondary data. The data were extracted from the financial statements of the selected companies through content analysis. The required data were board size, number of board meetings, audit committee size and environmental disclosures.

Measurement and Description of Variables

Table 2: Description of variables

S.No	Variable Names	Description & Measurement	Type	*Apiori* Expectation	Source
1	**Environment Disclosures**	Sum of Environmental disclosures index	Dependent		
2	**Board Size**	No. of Board Members	Independent	Positive	
3	**Board meetings**	No. of Board meetings	Independent	Positive	
4	**Audit Committee**	Audit Committee Size	Independent	Positive	

Source: Researcher's Compilation (2022)

Model Specification

In this study, the researcher adapted a regression model to capture the impact of corporate governance and environmental disclosures of manufacturing firms in Nigeria. Environmental disclosure= f(corporate governance mechanism)

ED = F (BS, BM, BC).

To make equation easy for empirical verification, data would be transformed in a multiple linear regression equation.

$\text{Log }(ED)_{it} = \beta_o + b_1 \log(BS_{it}) + b_2 \log(BM_{it}) + b_3 \log(AC_{it}) + u$-Equation 3.1

This is a modification of the model used in previous studies. This model was respectively adapted to test the hypothesis

Where: β_0-b_3= Parameter to be estimated, μ= Error term
ED=Environmental Disclosures, BS= Board Size
BM= Board Meetings, AC= Audit Committee
β_o=Constant, b_1-b_2=coefficients
u=error, i=no. of company
t=time frame

Descriptive Statistics technique and linear regression analysis were the techniques adopted for the analysis. The data analysis was enhanced using Statistical Package for Social Science version 20.

All hypotheses were tested at 5% level of significance. A null-hypothesis was rejected if the probability

value was less than 0.05 ($p<0.05$) and the F-cal was greater than the critical value of F.

DATA ANALYSIS AND DISCUSSIONS

This section was dedicated for the analysis and interpretation of the data set. The findings were also discussed in this section of the study.

The data set were extracted from the financial statements of twelve (12) consumer goods manufacturing Companies in Nigeria. The extracted data set is presented in the Appendix II of the study.

Descriptive Analyses of Variables

To evaluate the nature of distribution of the data set, descriptive analyses of all the variables was carried out and the result is presented in Table 3.

Data Presentation

Table 3a: Descriptive Statistics of the effect of corporate governance and environmental disclosure

			Statistic	Std. Error
Board Size	Mean		10.45	.246
	95% Confidence Interval for Mean	Lower Bound	9.96	
		Upper Bound	10.94	
	5% Trimmed Mean		10.55	
	Median		11.00	
	Variance		5.787	
	Std. Deviation		2.406	
	Minimum		5	
	Maximum		14	
	Range		9	
	Interquartile Range		4	
	Skewness		-.428	.246
	Kurtosis		-1.017	.488
Board Meetings	Mean		4.688	.1131
	95% Confidence Interval for Mean	Lower Bound	4.463	
		Upper Bound	4.912	
	5% Trimmed Mean		4.563	
	Median		4.000	
	Variance		1.228	
	Std. Deviation		1.1080	
	Minimum		4.0	
	Maximum		9.0	
	Range		5.0	
	Interquartile Range		1.8	
	Skewness		1.551	.246
	Kurtosis		1.918	.488

Source: SPSS Output (2023)

Table 3b: Descriptive Statistics of the effect of corporate governance and environmental disclosure

Audit Committee Size	Mean		5.615	.0975
	95% Confidence Interval for Mean	Lower Bound	5.421	
		Upper Bound	5.808	
	5% Trimmed Mean		5.572	
	Median		6.000	
	Variance		.913	
	Std. Deviation		.9555	
	Minimum		4.0	
	Maximum		8.0	
	Range		4.0	
	Interquartile Range		1.0	
	Skewness		.034	.246
	Kurtosis		.640	.488
Environmental Disclosure	Mean		2.20	.306

	95% Confidence Interval for Mean	Lower Bound	1.59	
		Upper Bound	2.80	
	5% Trimmed Mean		1.94	
	Median		.00	
	Variance		8.960	
	Std. Deviation		2.993	
	Minimum		0	
	Maximum		9	
	Range		9	
	Interquartile Range		4	
	Skewness		1.156	.246
	Kurtosis		.077	.488

Source: SPSS Output (2023)

The results of the analysis in table 3a shows that board size had a minimum value of 5 and maximum value of 14 approximately. This implies that the minimum and maximum number of directors in the board of the selected manufacturing firm is 5 and 14 respectively. The mean value was 10 which imply that on average 10 directors sit on the board of consumer goods companies in Nigeria.

The standard deviation which is a measure of the degree of dispersion of the distribution from the mean stood at 2.4 for board size. The skewness and kurtosis values of -0.428 and -1.017 implies that the distribution of the data set for board size tilted towards the left and flat at the top of the normal distribution curve.

The results of the analysis in table 3a shows that board meetings had a minimum value of 4 and maximum value of 9 respectively. This implies that the minimum and maximum number of meetings held by the board of the selected manufacturing firm was 4 and 9 respectively. The mean value was 4 which imply that on average 4 meeting were held per year by the directors of the selected consumer goods companies in Nigeria. The standard deviation stood at 1.10 for board meetings. The skewness and kurtosis values of +1.551 and +1.918 implies that the distribution of the data set for board meetings tilted towards the right and flat at the top of the normal distribution curve.

The results of the analysis in table 3b shows that audit committee size had a minimum value of 4 and maximum value of 8 respectively. This implies that the minimum and maximum number of members of the audit committee of the selected manufacturing firm was 4 and 8 respectively. The mean value was 5, which implies that on average membership of the statutory audit committee of the selected consumer goods companies in Nigeria is 5 directors. The standard deviation stood at 0.955 for audit committee. The skewness and kurtosis values of +0.034 and +0.640 implies that the distribution of the data set for audit committee tilted towards the right and flat at the top of the normal distribution curve.

The results of the analysis in table 3b shows that total environmental disclosure had a minimum value of 0 and maximum value of 9 respectively. This implies that the minimum and maximum number of disclosures of environmental information of the selected manufacturing firm was 0 and 9 respectively. The minimum value of 0 implies that no disclosures were made within the period under review by some the selected companies.

The maximum value of 9 implies that 9 out the twelve items on the disclosure checklist were disclosed by some of the sampled companies. This indicates a maximum disclosure of 75% and minimum disclosure of 0%. The mean value was 2.20, which implies that on average the selected manufacturing companies disclose 2 items on the disclosure checklist which signifies 16.67%.

The standard deviation stood at 2.993 for environmental disclosures. The skewness and kurtosis values of +1.156 and +0.077 implies that the distribution of the data set for audit committee tilted towards the right and flat at the top of the normal distribution curve.

Granger Causality Tests of Selected Variables

Granger causality test is a probabilistic account of causality; it uses empirical data sets to find patterns of correlation. The Granger Causality Tests result is shown in Table 4.

Table 4: Granger causality tests of selected variables

Pairwise Granger Causality Tests				
Date: 10/06/22 Time: 20:18				
Sample: 1 96				
Lags: 2				
Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
BOARD_MEETINGS does not Granger Cause AUDIT_COMMITTEE_SIZE	94	0.06827	0.9341	Accept
AUDIT_COMMITTEE_SIZE does not Granger Cause BOARD_MEETINGS		2.59887	0.0800	Accept
BOARD_SIZE does not Granger Cause AUDIT_COMMITTEE_SIZE	94	0.13574	0.8733	Accept
AUDIT_COMMITTEE_SIZE does not Granger Cause BOARD_SIZE		0.15021	0.8607	Accept
BOARD_SIZE does not Granger Cause BOARD_MEETINGS	94	0.82800	0.4403	Accept
BOARD_MEETINGS does not Granger Cause BOARD_SIZE		1.23778	0.2950	Accept

Source: E-views Output (2023)

The result of the analysis in Table 4 shows that none of the corporate governance mechanism exerts a causal influence on each other. These conclusions are made on the basis of the probability value in each case where the p-value of above 0.05 suggests that the null hypothesis of no Granger causality should be accepted and below 0.05 informs the rejection of null hypothesis which proposes no Granger causality in any case. The result also shows that independent variable does not predict each other and this rules away the fears of multicollinearity and autocorrelation in the data set. The result of the analysis is shown in Table 5. The model specification is shown thus;

Table 5: Regression Result of the effect of Corporate Governance on environmental disclosure

Dependent Variable: Environmental Disclosure				
Method: Least Squares				
Date: 10/06/22 Time: 19:49				
Sample: 1 96				
Included observations: 96				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-10.99114	2.333726	-4.709698	0.0000
Audit_Committee_Size	0.779788	0.274784	2.837818	0.0056
Board_Meetings	0.591830	0.236964	2.497556	0.0143
Board_Size	0.577787	0.107661	5.366713	0.0000
R-squared	0.311465	Mean dependent var		2.197917
Adjusted R-squared	0.289013	S.D. dependent var		2.993396
S.E. of regression	2.524033	Akaike info criterion		4.730367
Sum squared resid	586.1082	Schwarz criterion		4.837214
Log likelihood	-223.0576	Hannan-Quinn criter.		4.773556
F-statistic	13.87235	Durbin-Watson stat		0.451901
Prob(F-statistic)	0.000000			

Source: E-views Output 2023

DISCUSSION

Board Size and Environmental Disclosure

The result of the analysis in table 5 showed a beta coefficient of 0.577 for board size. This implies that 57.7 of the variation in environmental disclosure of the selected consumer goods companies are accounted for by board size. This result means that having more directors on the board of manufacturing companies would increase the disclosure of environmental information. The result also suggests that board size has positive effect and relationship with environmental disclosures of manufacturing companies as shown in table 5. This finding is in line with findings of Akbas [70]. The author analyzed the relationship between selected board characteristics and the extent of environmental disclosure in annual reports of Turkish companies, using a sample of 62 non-financial firms listed on the BIST-100 index at the end of 2011.

Board Meetings and Environmental Disclosure

The result of the analysis shown in table 5 showed a beta coefficient of 0.591 for board meetings. This implies that 59.1% of the variation in environmental disclosures of manufacturing companies is accounted for by board meetings. The result means that an increase in the number of board meetings will increase the disclosure of environmental information. An increment in the number of meetings will create an avenue for the discussion of environmental matters. The result also suggests that board meetings have positive relationship with environmental disclosures of manufacturing firms in Nigeria. This finding is in line with findings of Abazu & Okoye [67] analyzed the effect of corporate governance on environmental disclosure of listed construction firms in Nigeria.

Audit Committee Size and Environmental Disclosures

The result of the analysis in table 5 showed a beta coefficient of 0.779 for audit committee size. This implies that 77.9% of the variation in environmental disclosures of the selected manufacturing companies is accounted for by audit committee. This result means that a higher number of directors in the audit committee will increase the disclosure of environmental information. The higher membership gives room for diversity in the qualification and experience of the directors.

The analysis further reveals a positive relationship between audit committee and environmental disclosures. This finding is in line with findings of Ika, Nugroho, Achmad & Widagdo [66] empirically examined the impact of corporate governance practices on environmental reporting.

Corporate Governance and Environmental Disclosure

The result of the analysis showed an adjusted R-squared of 0.289 for corporate governance. This implies that 28.9% of the variation in environmental disclosures is accounted for by corporate governance. This implies that the combined influence of board size, board meeting and audit committee size on the environmental disclosure of manufacturing companies is 28.9%. This finding is in line with the study of Oyekale, Olaoye and Nwaobia [71-106] investigated the impact of corporate governance on environmental sustainability disclosure of non-financial companies quoted in Nigeria.

CONCLUSION

The main findings of the study are as follows;

- Board Size has a positive and significant influence on the environmental disclosure of consumer goods manufacturing companies in Nigeria.
- Board meeting has a positive and significant influence on the environmental disclosure of consumer goods manufacturing companies in Nigeria.
- Audit committee size has positive and significant influence on the environmental disclosure of consumer goods manufacturing companies in Nigeria.

According to the study's results, Nigerian manufacturing firms do not significantly include environmental information in their financial reports. Based on the findings of the descriptive analysis, this is said. Additionally, it is established that corporate governance practises have a big impact on how much environmental data is disclosed.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made;

- The number of directors in the manufacturing sector should increase to a minimum of ten directors to allow the presence of diverse skills and experience on the board.
- The frequency of board meetings should be increase to a minimum two months interval as this create avenue for extensive deliberation on environmental issues and reports.
- The law regulating the governance of companies and the appointment of members of the audit committee should be revised to a minimum of eight accommodates more members in the audit committee.

REFERENCES

1. Uford, I. C. and Duh, H. I (2021) Measuring the sources and outcomes of customer-based brand equity in a Service Industry. African Journal of Economics and Business Research, 16(2):245-266.
2. Uford, I. C. (2017) Customer and employee-based brand equity driving United Bank for Africa's market performance. Published Ph.D. Thesis, University of the Witwatersrand, Johannesburg, South Africa, 1-227.
3. Etim, G. S., & Uford, I. C. (2019) Measuring the contributions of sources of employee-based brand equity to the market performance of deposit money banks in Nigeria. Business and Management Studies, 5(2):21-33.
4. Dombin, A. N. (2013) Role of corporate governance in attracting investments in Nigeria. Journal of Educational & Social Research, 3(9):35-42.
5. The World Bank (2006) Report on the observance of standards and codes: Corporate governance. Retrieved from:www.worldbank.org/ifa/rosc.html
6. Thomas, C. D., Ukpong, E. G. & Usoro, M. U. (2022) Ergonomics and organizational sustainability: A study of Peacock Paint Limited, Ikot Ekan, Etinan L.G.A Akwa
7. Ibom State. International Journal of Business and Management Review, 10 (4):75-94.
8. Wahyudin, A., & Solikhah, B. (2017) Corporate governance implementation rating in Indonesia and its effects on financial performance. The International Journal of Business in Society, 17(2):250-265.
9. Suhardjanto, D. & Permatasari, N.D. (2010) The effect of corporate governance, ethnicity, and educational background on environmental disclosure. Journal of Business and Economics, 14(2):151-164.
10. Qu, W. & Leung, P. (2006) Cultural impact on Chinese corporate disclosure-A corporate governance perspective. Managerial Auditing Journal, 21(3):241-264.
11. Allegrini, M., & Greco, G. (2013) Corporate boards, audit committees and voluntary disclosure: Evidence from Italian listed companies. Journal of Management & Governance, 17:187-216.
12. Ntim, C. G. & Soobaroyen, T. (2013) Black economic empowerment disclosures by South African listed corporations: The influence of ownership and board characteristics. Journal of Business Ethics, 116(1):121-138.
13. Uwuigbe, U. & Jimoh, J. (2012) Corporate environmental disclosures in the Nigerian manufacturing industry: A study of selected firms. African Research Review. 6(3):71-83.
14. Elzahar, H. & Hussainey, K. (2012) Determinants of narrative risk disclosures in UK interim reports. Journal of Risk Finance, 13:133-147.
15. Janggu, T., Darus, F., Zain, M. & Sawani, Y. (2014) Does good corporate governance lead to better sustainability reporting? An analysis using structural equation modeling. Procedia - Social and Behavioral Sciences, 145.
16. Jensen, M. C. & Meckling, W. H. (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4):305-

360.

17. Jensen, M.M. (1993) The modern industrial revolution, exit, and the failure of internal control systems. The Journal of Finance, 68(3):831-880.

18. Kathyayini, K., Tilt, C.A. & Lester, L.H. (2012) Corporate governance and environmental reporting: An Australian study. Corporate Governance 12(2):143-163.

19. Bouaziz, M. Z. (2014) Corporate governance and voluntary financial disclosure by Canadian listed firms. Management Review International Journal, 9(1):44-69.

20. Andreou, P., Louca, C. & Panayides, P. (2014) Corporate governance, financial management decisions and firm performance: Evidence from the maritime industry. Transportation Research Part E: Logistics and Transportation Review. 63:59-78.

21. Roshima, S., Yuserrie, H. Z., & Hasnah, H. (2009) The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. Social Responsibility Journal, 5(2):212-226.

22. Reddy, D., Locke, S. & Scrimgeour, F. (2010) The efficacy of principle-based corporate governance practices and firm financial performance: An empirical investigation. International Journal of Managerial Finance, 6:190-219.

23. Ujunwa, A. (2012) Board characteristics and the financial performance of Nigerian quoted firms. Corporate Governance: International Journal of Business in Society. 12

24. Chalevas, C.G. (2011) The effect of the mandatory adoption of corporate governance mechanisms on executive compensation. The International Journal of Accounting 46(2): 138-174.

25. Chen, G., Firth, M., Gao, D. N. & Rui, O. M. (2006) Ownership structure, corporate governance, and Fraud: Evidence from China. Journal of Corporate Finance, 12:424-448.

26. Xie, B., Davidson, W. & Dadalt, P. (2001) Earnings management and corporate governance: The role of the board and the audit committee. Journal of Corporate Finance. 9:295-316.

27. Knechel, W. & Vanstraelen, Ann. (2007) The relationship between auditor tenure and audit quality implied by going concern opinions. Auditing: A Journal of Practice & Theory. 26(10):245-260.

28. Chou, H. I., Huimin, C., and Xiangkang, Y. (2013) Attendance of board meetings and company performance: Evidence from Taiwan. Journal of Banking and Finance 37:4157-71.

29. Nkundabanyanga, S. K., Ahiauzu, A., Sejjaaka, S. K. & Ntayi, J.M. (2013) A model for effective board governance in Uganda's services sector firms. Journal of Accounting in Emerging Economies, 3(2):125-144.

30. Correia, T., & Lucena, W. G. (2020) Board of directors and code of business ethics of Brazilian companies. RAUSP Management Journal. 55:263-279.

31. Elamer, A. A., Ntim, C. G., & Abdou, H. A. (2018) Islamic governance, national governance, and bank risk management and disclosure in MENA countries. Business & Society, 59(5): 914-955.

32. Ukpong, E.G., & Ukpe, E.A. (2023) Assessment of dividend policy practices and the performance of firms: evidence from listed Nigerian companies. European Journal of Business, Economics and Accountancy, 11(2): 54-68.

33. Amin, A., Ur, R., Ali, R. & Ntim, C. G. (2021) Does gender diversity on the board reduce agency cost? Evidence from Pakistan. Gender in Management: An International Journal, 2(3):1-20.

34. Wang, S.; Wang, X.; Lu, F.; Fan, F. (2020) The impact of collaborative innovation on ecological efficiency-Empirical research based on China's regions. Technol. Anal. Strateg. Manag.33:242-256.

35. Vafeas, N. and Theodorou, E. (1998) The Relationship between Board Structure and

Firm Performance in the UK. The British Accounting Review, 30:383-407.

36. Azar, S. F., Robab, S.R, Saleheh, A. M. & Seyed, N. M. (2014) The relationship between provide environmental accounting information and improve management performance of the companies accepted in the Tehran stock exchange. Case Study for Companies in the Pharmaceutical Industries, 2(5):222-227.

37. Catikkas, O. & Alpaslan, Halil I. (2003) Effectiveness of audit committees in the Turkish banking sector. Academic Journal of Interdisciplinary Studies, 2(11):245-260.

38. Bromark, R. & Hoffman, R. (1992) An audit committee for dynamic times. Directors and Boards, 2(2):51-60.

39. Khlif, H., Samaha, K. & Soliman, M. T. (2017) Internal control quality, disclosure and cost of equity capital: The case of an unregulated market.. Available at SSRN: https://ssrn.com/abstract=3059702 or http://dx.doi.org/10.2139/ssrn.3059702

40. Smith, R. (2003) Audit Committees Combined Code Guidance. London: Financial Reporting Council.

41. Chartered Institute of Management Accountants (2012). Financial Management. Retrieved from: www.cimaglobal.com/F2-financial management.

42. Roberts Environmental Center (2010) The 2010 Sustainability reporting of the world's largest Petroleum refining companies. http://www.roberts.cmc.edu/psi/PDF/PetRefining

43. Ejoh, N.O., Orok, E.O. & Sackey, J.A. (2014) The development of environmental accounting and disclosure practice of manufacturing companies in Nigeria. Journal of Economics and Sustainable Development, 5(12):70-79.

44. Ong, T. T., Tho, H. S., Goh, H. H., Thai, S. B., & The, B. H. (2016) The relationship between environmental disclosure and financial performance of public listed companies in Malaysia: Empirical review. International Journal of Business Management, 10(4):461-467.

45. Dibia, N.O. & Onwuchekwu, J. O. (2015) Determinant of environmental disclosure in Nigeria: A case study of oil and gas companies. International Journal of Finance and Accounting, 4(2):115-135.

46. Abubakar, A. A., Moses S., & Inuwa M. B. (2017) Impact of environmental disclosure on performance of cement and brewery companies in Nigeria. Civil and Environmental Research, 9(10):40-46.

47. Adams, A. A., & Busola, A. A. (2017) Environmental disclosure practices in annual reports of listed manufacturing firms in Nigeria. Social Science Research Network, (SSRN) 1-19.

48. Ong, T. S., Ng, Y.H., Teh, B.H., Kasbun, N.F., & Kwan, J. H. (2019) The relationship between corporate governance attributes and environmental disclosure quality of Malaysian public listed companies. Asian Journal of Accounting and Governance, 12:1-12.

49. Darwish, A. (2009) The effect of accounting disclosure on the environmental performance of Jordanian industrial companies on the rationalization of decisions and the quality of financial reports moral entrance. Egyptian Journal of Business Studies, 31(1):10.

50. Ja'far, S. & Arifah D.A (2006) The influence of environmental management encouragement, proactivity and public environmental performance environmental reporting. Prooceding SNA Prooceding SNA 9:23-26

51. Harjoto, M. & Jo, H. (2011) Corporate governance and CSR Nexus. Journal of Business Ethics, 100:45-67.

52. Hillman, A. & Dalziel, T. (2003) Boards of directors and firm performance: Integrating agency and resource dependence perspectives. The Academy of Management Review, 28: 383.

53. Cespa, G. & Cestone, G. (2007) Corporate social responsibility and managerial entrenchment. Journal of Economics & Management Strategy. 16:741-771.

54. Desender, K. & Epure, M. (2015) Corporate governance and corporate social performance: Boards, ownership and Institutions. Academy of Management Proceedings, 16433-16433.

55. Ioannou, I. & Serafeim, G. (2012) The impact of corporate social responsibility on Investment recommendations: Analysts' perceptions and shifting institutional logics. Strategic Management Journal. 36(1):220-240.

56. Oh, W. Y., Chang, Y.K. & Martynov, A. (2011) The effect of ownership structure on corporate social responsibility: Empirical evidence from Korea. J Bus Ethics 104(2):283-297.

57. Chang, Y.K., Oh, W.Y, Park, J.H, Jang, M.G. (2017). Exploring the relationship between board characteristics and CSR: empirical evidence from Korea. J Bus Ethics 140(2), 225-242.

58. Ghozali, I & Chariri, A. (2007) Theory of Accounting. BP UNDIP. Semarang.

59. Van der Laan, Sandra (2009) The role of theory in explaining motivation for corporate social disclosures: Voluntary disclosures vs. solicited disclosures, Australasian Accounting, Business and Finance Journal, 3(4):235-245.

60. Masud, M. A., Nurunnabi, M. & Bae, S. (2018) The effects of corporate governance on environmental sustainability reporting: empirical evidence from South Asian countries. Journal Finance, 3:1-26.

61. Albertini, Elisabeth. (2013) A descriptive analysis of environmental disclosure: A longitudinal study of French Companies. Journal of Business Ethics, 121.

62. Oyekale, P.O., Olaoye, S.A. and Nwaobia, A.N. (2022) Corporate governance and environmental sustainability disclosure in non-financial companies quoted in Nigeria. Journal of Finance and Accounting. 10(2):121-131.

63. Ukpong, E.G. (2021) Moderating effect of CEO qualification on corporate governance attributes and social responsibility reporting of firms in Nigeria. Published PhD Thesis, Department of Accounting, Faculty of Economics and Management Sciences, Abia State University, Uturu.

64. Odoemelam, N. & Okafor, R.G. (2018) The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. Indonesian Journal of Sustainability Accounting and Management, 2(1):25-49.

65. Solikhah, B. and Maulina, U. (2021) Factors influencing environment disclosure quality and the moderating role of corporate governance. Cogent Business & Management 8:1-18.

66. Ndalu, T. C., Ibanichuka, E. A. & Ofurum, C.O (2021) Board characteristics and environmental disclosure of quoted oil and gas firms in Nigeria: The moderating role of firm size. International Journal of Innovative Finance and Economics Research, 9(4):51-62.

67. Ika, S. R., Nugroho, J.P., Achmad, N. & Widagdo, A.K. (2021) The impact of corporate governance on environmental reporting: Evidence from the Indonesian manufacturing industry. IOP Conf. Series: Earth and Environmental Science 739:1-8.

68. Abazu, M.E. & Okoye, P. V. (2021) Effect of corporate governance on environmental disclosure of listed construction companies in Nigeria. Research Journal of Management Practice, 1(10):32- 52.

69. Baje, K.B., Yemenu, K.A & Surur, S.A., (2020) Elucidative motives of social and environmental reporting in Ethiopian companies. African Journal of Business Management, 14(1):1-8.

70. Ukpong, E.G. (2012) Cognitive apprenticeship instructional models and students' performance in Financial Accounting in Akwa Ibom State. Unpublished Ph. D. Thesis University of Uyo, Uyo.

71. Akbas, H.E. (2016) The relationship between board characteristics and environmental disclosure: Evidence from Turkish listed companies. South East European Journal of Economics and Business, 11 (2):7-19.

72. Abbott, L. J., Parker, S. & Peters, G. F. (2004) Audit committee characteristics and restatements. Auditing a Journal of Practice and Theory, 23:69-87.

73. Ajibolade, S. O., & Uwuigbe, U. (2013) Effects of corporate governance on corporate social and environmental disclosure among listed firms in Nigeria. European Journal of Business and Social Sciences, 2:76-92.

74. Alhasan, N. & Mohammed R. (2016) Corporate governance in five Arabian Gulf countries. Managerial Auditing Journal, 28(1):7:22.

75. Appuhami, R and Tashakor, S. (2017) The impact of audit committee characteristics on CSR disclosure: An Analysis of Australian Firms. Australian Accounting Review, 83(27):4-18.

76. Arguden, Y. (2010) A corporate governance model: building responsible boards and sustainable businesses. Retrieved from:www.gcgf.org/

77. ASX Corporate Governance Council. (2003) Principles of good corporate governance and best practice recommendations. Australian Stock Exchange Corporate Governance Council.

78. Bursa Malaysia (2006) CSR framework for Malaysian PLCs'. available at: www.bursamalaysia.com

79. Chen, Y., Chen, H., Huang, W. & Ching, R. (2006). E-Government strategies in developed and developing countries: An implementation framework and case study. JGIM. 14:23-46.

80. Cong, Y. & Martin Freedman, M. (2011) Corporate governance and environmental performance and disclosures. Advances in Accounting, incorporating Advances in International Accounting 27:223-232.

81. Cunha, H & Mendes, G. B. (2017) Board characteristics and earnings management of listed food and beverages firms in Nigeria, European Journal of Accounting, Auditing and Finance Research, 3(8):25-41.

82. Dar, L.A., Naseem, M.A., Rehman, R.U. & Niazi, G.S. (2011) Corporate governance and firm performance: A case study of Pakistan oil and gas companies listed in Karachi stock exchange. Global Journal of Management and Business Research, 11(8);1-9.

83. Desender, K. & Epure, M. (2015) Corporate governance and corporate social performance: Boards, ownership and Institutions. Academy of Management Proceedings, 16433-16433.

84. Dinithi, D., Carol, T., M., & Xydias, L. (2016) Sustainability reporting by publicly listed companies in Sri Lanka. Journal of Cleaner Production, 129:169-182.

85. Ezhilarasi G. & Kabra, K.C. (2017) The impact of corporate governance attributes on environmental disclosures: Evidence from India. Indian Journal of Corporate Governance, 10(1):24-43.

86. Ghasempour, A. & Yusof, M. (2014) Quality of intellectual capital and human resources disclosure on the firm valuation. Open Journal of Accounting, 3:59-70.

87. Hackman, J. R. (1990) Groups that work. Jossey-Bass.

88. Ionel-Alin, I., Irimie Emil, P., & Maria, I.N. (2012) Environmental reporting and good practice of corporate governance: Petroleum industry case study. Procedia Economics and Finance, 3:961-967.

89. Kantudu, A., & Samaila, I. (2015). Board characteristics, independent audit committee and Financial reporting quality of oil marketing firms: evidence from Nigeria. Journal of Finance, Account and Management, 6(2):34-43

90. Keune, M., & Johnstone, K. (2012) Materiality judgments and the resolution of detected Misstatements: The role of managers, auditors, and audit committees. The Accounting Review, 87(5):1641-1677.

91. Liao, L., Luo, L. & Tang, Q. (2021) Gender diversity, board independence,

environmental committee and greenhouse gas disclosure. The British Accounting Review 47:409-424.

92. Lin, Z. J., Xiao, J. Z. and Tang, Q. (2008) The roles, responsibilities, and characteristics of audit committee in China. Accounting, Auditing & Accountability Journal, 21(5):721-751.

93. Magena, M. & Pike, R. (2005) The effect of audit committee shareholding, financial Expertise, and size on interim financial Disclosure. Accounting and Business Research, 35:327-349.

94. Mahmood, Z., Kouser, R., Ali, W., Ahmad, Z., & Salman, T. (2018) Does corporate governance affect sustainability disclosure? A mixed method study. Sustainability Journal, 10(207):1-20.

95. Mgbame, C. O., & Onoyase, O. J. (2015) The effect of corporate governance on the extent of environmental reporting in the Nigerian oil industry. International Journal of Business and Social Science, 6(10):203-210.

96. Mukherjee, T., & Sen, S. S. (2019) Impact of corporate governance on corporate sustainable growth. International Research Journal of Business Studies, 12 (2):167-184.

97. Olayinka, O. M. & Owolabi, S. A. (2021) Corporate governance and environmental sustainability reporting: The Nigerian perspective. International Journal of Scientific and Research Publications, 11(4):487-497.

98. Persons, O. S. (2009) Audit committee characteristics and earlier voluntary ethics disclosure among fraud and no-fraud firms. International Journal of Disclosure and Governance, 6 (4): 284-297.

99. Persons, O. S. (2011) Characteristics and financial performance of no ethics-code firms. Journal of Academic and Business Ethics, 1-14.

100. Solikhah, B. & Winarsih, A.M. (2016) Effects of media coverage, industry sensitivity, and corporate governance structure on the quality of environmental disclosure. Journal Akuntansi Dan Keuangan Indonesia, 13(1):1-22.

101. Solikhah,B., Puteri, A. A., Sarwono, E., Ulupui, G.A., & Al-Faryan, M.A. (2021) Improving understanding on determinant of environmental disclosure and moderating effect of corporate governance. Academy of Strategic Management Journal, 20(2):1-9.

102. Subramanyam, M. and Dasaraju, H. (2014) Corporate governance and disclosure practices in listed information technology (IT) companies in India. Open Journal of Accounting, 3:89-106.

103. The Organisation for Economic Co-operation and Development (OECD) (2003) White paper on corporate governance in Asia. Organisation for Economic Co-operation and Development.

104. Umoren, A., Isiavwe, E. & Morenike, T. (2016) Corporate social responsibility and firm performance: A study of quoted firms in Nigeria: In paper presented at ICAN 2nd International Conference of Accounting and Finance, at Ikeja, Lagos on the18th to 20th May 2016.

105. Villiers, C.D., Naiker, V. & Staden, C.J. (2011) The effect of board characteristics on firm environmental performance. Journal of Management, 37(6):1636-1663.

106. Yusuf, M. A., Adebayo, P. A. & Yusuf, R. N. (2018) Effect of financial performance on voluntary disclosure of listed financial firms in Nigeria. International Journal of Economics, Commerce and Management, VI(12):81-99.

