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CORPORATE GOVERNANCE MECHANISMS AND ENVIRONMENTAL REPORTING OF NIGERIAN OIL & GAS COMPANIES

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Abstract

This paper examined whether corporate governance mechanisms (CGM) affectenvironmental reporting (ER) of Nigerian oil & gas companies. The ex-post facto design was used and data were acquired from eight (8) oil & gas companiesthat are quotedon the Nigerian exchange group from 2011 to 2020. CGM was measured in Board Size (BS), Board Independence (BI), and Board Ownership (BO) while Environmental Reporting Index was used as a measure for ER. Panel regression technique and specifically random effects were used for data analysis. Findings suggested that BS decrease ER significantly while BI and BO significantly increase ER. The study concluded that the CGM of Nigerian oil & gas companiesaffects environmental reporting significantly. The recommendation was that companies who want to improve their level of environmental reporting to enjoy the benefits that come with doing so should pay closer attention to CGM (board size, independence, and ownership).

Keywords: Environmental reporting, corporate governance mechanisms, board ownership, board independence,board size.

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1.INTRODUCTION

Globally, businesses are making frantic efforts to address the environmental issues inherent in their operations. It is proven that companies' operations constitute serious environmental challenges likenoise, air, and water pollutions, loss of biodiversity, global warming, and extreme weather conditions among others. Consequently,in a bid to cover for these challenging foibles, companies engage in corporate activities that are targeted at environmental sustainability.

Subsequently, companies disclose their commitment to environmental sustainability through the appropriate channels such as separate environmental reports, triple bottom line reports, sustainability reports, and annual reports.[1] From the foregoing, the growing need for environmental reporting cannot be overemphasised. Environmental reporting is the systematic disclosure of the environmental effects of a firm's economic activity to various stakeholders.

Providing the needed, vital and realistic information of a firm's activities on the environment is the fundamental objective underpinning environmental reporting. Mostly, the information constituting environmental reporting often includes information on materials, water, emissions, effluents and waste, energy, and biodiversity.[2]

Basically, environmental reporting competitively puts a company at advantage over its competitors, hence attracting more customers and investors. However, Al-Janadi, et al.[3] asserted that the non-mandatory nature of environmental reporting has made it lacking in various company's reports. In our contemporary setting, disclosures on environmental issues as contained in reports are principally at the management's discretion, who also determine the content and context within which this information is disclosed to the various critical stakeholders.Firms are statutorily required as stipulated by corporate governance code to institute the enabling mechanism (corporate governance), through which their affairs are directed and controlled within the realm of the said code. This barely existed before the 1990s.[4] Corporate Governance (CG) basically entails how various corporate participants such as the directors, management,and shareholders interact among themselves in modelling a company's performance such that it is managed towards achieving desired goals. Since its introduction the relevance of CG has tremendously increased over time. It has helped in enhancing the business environment anchored on accountability fairness and transparency in operations. It is notable that in as much as CG has emerged to direct and control companies, it also affects what companies disclose as regards their effort in sustaining the environment. In the views of Chen and Lee (2012), irrespective of the kind of venture, only good governance can deliver sustainable good business performance. It is, therefore, not out of place to say, a good Corporate Governance Mechanism (CGM)can influence the level and extent of voluntary disclosures both nonfinancial and financial information of companies.

Sufficient disclosure is essential because inadequate information makes it impossible to properly judge the opportunities and risks of investment. To ensure that disclosures relating to environmental issues are adequate and reliable, supervision and implementation of environmentally friendly policies, programs, and their inherent disclosure should be supervised viaCGM.

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Corporate governance connotesthe mechanisms that determine how and by whom entities are governed and how a proper and responsive information inflow to stakeholders should be and is perceived to control the kind of environmental activity companies engages in and report.

The Nigerianoil & gas sector contributes heavily to the revenue of Nigeria and the operations of companies within this sector no doubt pose serious environmental challenges to their host communities. This has aroused fundamental issues to whether CG ofNigerian oil & gas companies rather than enhance detailed and factual reporting of a firm's environmental activity, aid in creating information asymmetry. Flowing from the foregoing view, this paper seeks to examine the effect of CGM onEnvironmental Reporting (ER) of Nigerian oil & gas companies. The specific objectives are to determine the:

i. Impact of Board Size (BS) on ER of Nigerian oil & gas companies.
ii. Effect of Board Independence (BI) on ER of Nigerian oil & gas companies.
iii. Relationship between Board Ownership (BO) and ER of Nigerian oil & gas companies.

Arising from the above objectives, the following hypotheses are formulated in null form:

Ho1: BSdoes not significantly impact onER of Nigerian oil & gas companies.

Ho2: BIhas no significant effect on ER of Nigerian oil & gas companies.

Ho3: BOdoes not have a significant effect on ER ofNigerian oil & gas companies.

2. Literature Review

2.1Conceptual Issues

Corporate Governance (CG) has attracted global attention both in the private and public sectors. It is a mechanism that entails the relationship existing within a company's internal governance, encompassing corporate accountability, fairness, and transparency. To Adedotun[5], CG is a framework for making corporate decisions within the accounting realm. It is an effective management relationship within which an organisation isanchored on integrity, thereby enhancing their performance with a resultant benefit(s) accruable to various critical stakeholders.According to Claessens[6], CG has to do with the processes and structures tailored towards directing and managing the affairs of a firm to enhance its prosperity and accountability in generating long-term returns to shareholders, whilst taking into account the interest of the various stakeholders. Similarly, Ahmed (2014), opined that CG is synonymous the relationships that exist between the organization's stakeholders by trying to balance their interests and the policies, laws, practices, procedures, standards, and principles with the capacity to influence the direction and control of a company.

Although the regulations, codes, and practices of CG may vary among countries, a report from Millstein (1998) submits that CG principles are categorised into four including fairness, transparency, accountability, and responsibility.[7]Fairness here connotes ensuring that shareholders' rights are not only protected but are treated equitably whereas transparency in this circumstance entails timeliness and quality information disclosure about ownership, governance, and corporate performance that are adequate, clear, and comparable. Responsibility and accountability entail the function of a company to take responsibility for its activities and give account respectively. This is where CGMhas a link with how organizations disclose information about their efforts to sustain the environment. Accordingly, Ogbechie[8] opined that CGM abound and are harnessed in every organization and they includeboard composition,board independence, board size, board financial expertise, board leadership, board diversity, ownership concentration, and board culture.

Environmental reporting isthe communication aboutenvironmental activities and performance of an entity to the public. Disclosure on environmental issues are very important for accountability, comparability and probity, hence when lacking in a firm's annual report, the firm is seen as being unfair, non-transparent, fraudulent, and liable to the risk associated with dissuading patronages from investors, customers, suppliers, and communities hosting the companies' operations. Environmental reporting is viewed as the public disclosure of information relating to a company's environmental performance that makes them appear accountable for the consequences of its activities on the environment.

2.2 Theoretical Review

This paper is anchored on agency theory.[9] In 1976, Jensen and Meckling initiated this theory which is built on the activities and decisions between two parties (the agent and the principal) which is determined by a group of persons. They further posited that the theory has to do with an agent-principal relationship in which one or a group of persons (the principal) go into agreement with another person or group of persons (agent) to perform services which involves allocating to the agents some authority to make decisions on their behalf.Under this context, agency relationship entails manager's responsibility to act for their principal (shareholders) in supervising the business operation to achieve its organizational set goals and objectives and maximising the shareholders' wealth. When the manager fails to act in the shareholders' interest, agency conflict arises (Brennan, 1995). Therefore, to avoid conflicts that may occur in an agency relationship, stringent monitoring and control are required to ensure that managers' activities are directed on shareholders' wealth maximization.[10]

To ensure that the agents' activities are controlled and monitored strictly, CGM was introduced.[11] By this, the board of directors (agent) is saddled with developing appropriate practices of corporate environmental for the shareholders (principal). This is important because it has the potentials to create images that are positive for the shareholders and company. Also, it can increase the confidence of the shareholders' confidence with respect to the security of the investments they commit to a company.[10]

Managers have the potential to reduce information gap about environmental issues by reporting environmental issues voluntarily. However, voluntary disclosure of information may give room for opportunistic behaviour. That is a situation where managers fail to disclose information on environmental activities that can portray their firm as one that is not environmentally friendly.[12] Hence, Friedman[13] maintain that there is usually a conflict between managers'

(agent) interest and shareholders (principal) because managers often use corporate responsibility to further their own social, political, or career agendas at the expense of shareholders that want to obtain a reliable representation of a firm's sustainability performance. Therefore, companies use CGM to restorestakeholders' interests.

This paper is hinged on agency theory because, managers as agents are employed to run a company on behalf of theshareholders (principals). CGM ensures that a company's interest is taken into consideration atall times. Since engaging in activities tailored at sustaining the environment and reporting same is also a managerial function that is of importance to shareholders,CGM are expected to ensure its achievement at all times.

2.3 Empirical Studies

Ika et al. [14] examinedwhether CG practices affectER of 102 listed Indonesian manufacturing companies from 2015 to 2017. Using panel regression analysis, they found that audit committee effectiveness and board size positively affect environmental reporting. This study made use of data from 2015 to 2017 and was published in 2021. The time lag between 2018 and 2021 is enough for significant changes to have taken place which will prove otherwise of the findings hence the need for another study.

Ogungbade[15] analysed the effect of CGM on Corporate Social Responsibility (CSR) with data from 12 listed Nigerian deposit Money Banks. Result showed that, audit committee size significantly improves CSR spending on education and health, but it insignificantly affects community development. Board size and gender diversity were found to have an insignificant effect on CSR activities on education, health, and community development. Gender diversity has the largest effect on CSR compared with board size, and audit committee size. Also, firm size insignificantly affects audit committee size and board size on CSR activities on education and health.

Osemene and Fagbemi[16] investigated effect of CG onER of listed consumer goods companies in Nigeria. The study made use of descriptive and inferential statistics and found asignificant and positive effect of board independence,institutional ownership, and board size on environmental reporting. This study is timely and used same variables as our study however, the sectors differ.

Eneh [17] determined a impact of CGM on environmental disclosure (ED) in Nigeria. The study employed ex-post facto design and acquired data from 40 listed food and beverage, and manufacturing companies from 2011 to 2017. Using quantile regression estimator,result showedthat for companies at the lowest ED quantile, board independence has negative effect but as companies move up to higher ED, board independence becomes positive and significant. The results thus supports that, independent boards significantly influences higher ED. For both companies in low, middle, and slightly high levels of ED, the study had no evidence that board size plays any significant role except for companies' high ED. Foreign ownership significantly affects environmental disclosure moderatelywith a negative coefficient.

Aliyu[18] ascertained the relationship existingbetween CG and risk management on corporate environmental reporting (CER) in Nigeria. The study obtained data from 24 Nigerian listed non-financial companies from 2011 to 2015. Using panel regression, result showed a positive and significant relationship between all the variables.

3. Methodology

This paper adopted the ex-post factodesign due to its suitability in investigating the relationship between dependentand predictor variables.[19] The study's population was eight (8)Nigerian quotedoil & gas companiesas at 31 December, 2020.Alleight (8) companies were selected and used as sample.The paper utilised secondary data from the eight (8) sampled companies for ten (10) years (2011 to 2020) through content analysis given 80 firm year observations.

This paper adopted the following regression model from Ivungu, etal. (2020). ERI served as the dependent variable while BS, BI and BO were the predictors. Age served as the control.

$ERI_{it} = \beta_0 + \beta_1 BS_{it} + \beta 2BI_{it} + \beta 3BO_{it} + \beta_4 Age_{it} + e_{it}$

where:

ERI = Environmental reporting index is the ratio of quality ('2' for mentioning and '3' for amount) to Occurrence ('1' if reported and '0' if otherwise)

BS = Board size is the number of board of directors

BI = Board independence is the ratio of non-executive director to the total directors

BO = Board ownership is the ratio of directors' shareholdings to the total shareholdings

AGE = Age of the companiesfrom the year of incorporation

it = firm i at time t

e = error term

4. Results and Discussion

Table 4.1: Descriptive Statistics

Variable	n	Mean	Std. Dev.	Min	Max
ERI	80	0.02	0.04	0	0.13
BS	80	8.60	2.92	5	16
BI	80	60.35	17.97	31	90
BO	80	15.76	22.28	0	78.20
Age	80	42.86	12.30	18	65

Source: STATA Output Version 16.0

Table 4.1 shows number of observations (n) as 80 for all the variables. This means that, the obtained were from 8 companies over 10 years implying that the data have panel attributes. ERIshows 0.02, 0.04, 0 and 0.13 as mean, standard deviation, minimum and maximum values respectively. This implies that, on average environmental reporting index of all the companies under study stood at 2% with variations of 4%. This means that, during the study period, there were averagely low disclosures relating to environmental issues by the sampled oil & gas companies.

BOas captured in Table 4.1 shows mean, standard deviation, minimum and maximum values of 15.76, 22.28, 0 and 78 respectively. This means that on average, 15.76% of the total company shares were held by the board of directors, implying that the majority of the companies' shares were held by other shareholders. However, some companies had high board ownership to the tune of 78% while other had no board ownership.

Age which is the control variable shows mean, standard

deviation, minimum and maximum values of 42.82, 12.30, 18 and 65 respectively. This means on average, the studied companies are 42 years, 8 months old with variations of 12 years 3 months old. The smallest firm in terms of age is 18 years while the oldest is 65 years old.

Table 4.2: Summary of Random Effects Regression Results

ERI	B	Z	P-value
BS	-0.0150784	-11.29	0.000
BI	0.0006845	17.03	0.000
BO	0.0003506	9.64	0.000
Age	0.9816241	35.42	0.000
Constant	0.0001624	0.02	0.984
R2 (overall) =0.8045			
Wald Chi2=144.46			
p-value=0.0000			

Source: STATA Output Version 16.0

Table 4.2 presents the random effect regression results for the study model. It captures the coefficient z-values and p-values for all the independent variables. It also shows the wald statistics, p-value within, between and overall R-squared for the regression result in general. The wald statistics show a value of 144. 46 with a p-value of 0.00 implying the model fitness. R2 within shows 0.90 which means that the study's predictors together account for 90% of the changes in environmental reporting within each firm during the period of study.

Table 4.2 also presents the statistical relationshipexisting between the study's dependent and predictor variablesin relation to the coefficients and p-values. BS shows a coefficient of -0.015 and a p-value of 0.000, implying thatthe relationship between BS and ER is negative and significant. That is, environmental reporting of the sampled companies will significantly decrease by 1.5% when there is an increase per unit in the board members of the companies. BI reveals a coefficient of 0.00 and a p-value of 0.00. This shows that the relationship between BI and ER is positive and significant. It further implies that disclosure on environmental issues will increase when board independence increase and vice versa. BO shows a coefficient of 0.00 and a p-value of 0.00. This means that, the more directors with shares in the companies the more their disclosure about the environment

4.1 Test of Hypotheses

Ho1: BS has no significant impact on ER of Nigerian oil & gas companies.

From Table 4.2, the p-value of BS is 0.00 which is less than 0.05, thus suggesting the rejection of Ho1. The study therefore maintains that BS significantlyimpacts on the ER of Nigerian oil & gas companies.

Ho2: BI has no significant effect on ER of Nigerian oil & gas companies.

Given that, BI has a p-value of BS is 0.00 which is less than 0.05,thus suggesting the rejection of Ho2. The study therefore affirms that BIsignificantly affects theER of Nigerian oil & gas companies.

Ho3: There is no significant relationship between BO and ER of Nigerian oil & gas companies.

From Table 4.2, BO has a p-value of BS is 0.00 which is less than 0.05,thus suggesting the rejection of Ho3. The study therefore holds that relationship between BOand ER of Nigerian oil & gas companiesis significant.

4.2 Discussion of Findings

Going by the p-value of the explanatory variable, the findings made from the empirical analysis is that, BSsignificantly impacts on the ER of Nigerian oil & gas companies since the p-value of BS is less than 0.05. The result also show that BS affects ER negatively. The import of this is when an increase in board sizeis recorded, it will lead to a significant decrease in the report of environmental activities of the companies. This goes to show that when a board is made up of persons who are not environmentally sensitive, little or no environmental activities will be done and hence a decline in the reports. This is however in agreement with the findings of Mgbame and Onoyase[20], Beredugo and Mefor[21], and Uwuigbe and Jimoh[22], who all found that companieslarger board of directors that have sustainable initiatives will likely disclose more about their efforts in sustaining the environment.

In line with results from the second hypothesis, BIpositively and significantly affects ER of Nigerian oil & gas companies. This is because the probability value of BI passes the significance test at the 5% level. What this outcome means is that independent directors influence ER among Nigeria companies. This is to say, when directors of a company are independent, they have the free will to listen to the yearnings and aspirations of the varying stakeholders and deliberate objectively on the issues with the aim of balancing the interest of those stakeholders. This position is in line with the findings of Ob Mgbame and Onyase.[20]

The result also shows thatassociation between BOand ER of Nigerian oil & gas companies is significant and positive. This means that, if the directors of the board also have a stake in the company, there is that likelihood that they will give a listening ear to the cries of other stakeholders about the negative effects of the firm on them and the environment, in general, to be adjudged legitimate. This confirms the findings of Ogbechie (2010) but disagrees with Oba and Fodio[8] and Mgbame and Onoyase (2015).[20]

5. Summary, Conclusion and Recommendation

The study found that:

1. Board size significantly decreases ER of Nigerian oil & gas companies.
2. Board Independence significantly increasesERof Nigerian oil & gas companies.
3. Board Ownershipsignificantly increasesER ofNigerian oil & gas companies.

Arising from the findings, the study therefore concludes that corporate governance mechanisms significantly affect environmental reporting of companies. Culminating from the findings, it is therefore recommended thatcompanies who want to improve their level of environmental reporting to enjoy the benefits that come with doing so, should pay closer attention to CGM (board size, independence, and ownership). [21-27]

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