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Corporate Board Diversity on Environmental Sustainability Reporting of Listed Consumer Goods Firms in Nigeria

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ABSTRACT:
The board of directors play an important role in corporate climate strategy-making and decisions but might also compromise environmental policies to minimize agency costs. This study critically investigates the effect of board diversity| on environmental sustainability reporting of listed consumer goods firms in Nigeria for 10 years (2011 to 2020). The study adopts an ex-post facto research design from a population of twenty (20) consumer goods firms listed on the Nigerian Exchange Group (NGX) as of December 31, 2020. Corporate board diversity was proxied by CEO nationality diversity, board gender diversity, and board of directors' nationality diversity. Whereas environmental sustainability reporting was proxied by environmental sustainability disclosure. A sample of 16 firms were selected through purposive sampling techniques and data set which was sourced from published audited annual reports were analyzed using a binary logistic regression analysis approach. The results reveal that CEO nationality diversity and board of directors' nationality diversity have a positive significant effect on environmental disclosure, whereas board gender diversity had a positive but insignificant effect on environmental disclosure suggesting that engagement of foreign CEOs can be leveraged in the determination of corporate goals that are associated with reducing the adverse effect of firm's operation on the environment. The outcome is consistent with the stakeholders' theory and reflects a sign of CEOs' commitment to the demands and interests of stakeholders. Given the foregoing, the study advocates policies that will accommodate hiring CEOs from different nationalities. When implemented, such policies will support environmentally friendly discussions and deliberations, which can translate to improved value for the firm. Such policy actions will be fundamental to maintaining good relationships with powerful stakeholders helping avoid undue pressure from stakeholders.

KEYWORDS: *CEO nationality diversity, board gender diversity, board of directors' nationality diversity, environmental sustainability*

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INTRODUCTION

The importance of good corporate governance emanating from the board of directors has spiked during the last two decades and has witnessed a continuous rise in debate among scholars worldwide (Ozili, 2021; Guluma, 2021). Hence, Dahya *et al.* (2008) posits that boards constitute an important corporate governance mechanism, especially in capital markets where external monitoring is weak. In the views of Acharya & Steffen (2020) and Schivardi *et al.* (2020), governance mechanisms include ownership structure, board structure, board meetings, protection of minority shareholder's rights, and financial reporting, among which board structure is the core element that influences corporate decisions across the globe. This has created rapt

attention towards the effect of team diversity vis-a-vis corporate boards during the past decades, especially in the aftermath of governance failures, like that of Enron Corporation, underscored by the emphasis placed on the monitoring role of boards by regulators and investors (Tasheva & Hillman, 2018), including their interest on sustainability, which is a critical element of the Sustainable Development Goal (SDG).

Issues of environmental sustainability reporting are not explicitly provided for in the Companies and Allied Matters Act, including the current IAS (Ofoegbu & Asogwa, 2020). There have not been any specifics on the extent of environmental sustainability disclosure in companies' financial reports. It is observed that big companies, in the recent past, have chosen to disclose information about the effect of their activities on the environment and the public (Ye *et al.*, 2023). This impacts how stakeholders perceive the organization (Smaliukienė, 2007), with consequences on its performance (Emuebie *et al.*, 2021).

Corporate performance is no longer viewed solely in terms of profitability (Rohrbeck & Kum, 2018); instead, businesses are now accountable to a diverse array of stakeholders (Kalra, 2024), including internal customers, external customers (the buyers of their products or services), suppliers, government entities at various levels, local communities, and society at large. Each of these stakeholders has unique expectations of the business that may not always be met (Darskuviene & Bendoraitienė, 2014). Alongside these expectations, they also assess the organization's commitment to social responsibility (Taghian *et al.*, 2015).

To date, existing literature within the Nigerian context predominantly emphasizes the impact of board gender diversity on environmental sustainability disclosures (Adeniyi & Fadipe, 2018; Odum, 2023). This study aims to expand that focus to include the effects of CEO nationality diversity and board nationality diversity, specifically within listed consumer goods firms in Nigeria.

There is substantial evidence indicating that people's interpretations of concepts like sustainability are shaped by deeply ingrained demographic, class, ethnic, disciplinary, ideological, and value-based positions (Beasy, 2018; Steg *et al.*, 2014), ultimately influencing their everyday decisions (Beasy, 2018). In light of this, Rao and Tilt (2012) propose a more comprehensive analysis that transcends economic and legitimacy metrics, advocating for an examination of the relationship between board diversity and sustainability imperatives. This study addresses that call by systematically reviewing the existing literature on how CEO nationality diversity, board gender diversity, and board members' nationality diversity impact environmental sustainability reporting.

Sustainability Reporting, Environmental Sustainability, and Corporate Board Diversity

There is no single, generally accepted definition for sustainability reporting. It is a broad term generally used to describe a company's reporting on its economic, environmental, and social performance. It can be synonymous with triple bottom line reporting, corporate responsibility reporting, and sustainable development reporting, but increasingly these terms are becoming more specific in meaning therefore subsets of sustainability reporting (KPMG, 2008). Jasch & Stasiskiene (2005) define Sustainability Reporting as a subset of accounting and reporting that deals with activities, methods, and systems to record, analyze, and report, firstly, environmentally, socially induced financial impacts and secondly, ecological and social effects of a defined economic system (example, a company, production site, and nation). Thirdly, sustainability reporting deals with measuring, analyzing, and communicating interactions and links between social, environmental, and economic issues constituting the three dimensions of sustainability.

Environmental sustainability is a growing urgent topic for society, subsequently, the sustainable development goals are continuously pushed forward on political agendas. Worldwide movements like "Fridays for Future" have increased pressure on businesses and politics to speed up measures against climate change (Porter & Kramer, 2006). According to The Guardian "we are in an age of extinction and at the point where irreversible environmental damage could be wrought" (Deverell, 2020), emphasizing the importance of immediate measures to be taken by individuals and businesses. Considering that businesses in developed countries are responsible for a large share of greenhouse gases and pollution (Redekop, 2010), climate activists and scientists worldwide are making it their primary interest to increase public pressure on these businesses (Porter & Kramer, 2006).

The concept of 'board diversity' has emerged as the most prominent issue in corporate governance literature in recent times (Rhode & Packel, 2014; Ibrahim & Hanefah, 2016). In the views of Ayuso & Argandona (2009) and Van Knippenberg *et al.* (2004) board diversity is attributed to heterogeneity among directors on the board with unique attributes or dimensions. Further, board diversity is a mixture of qualities, attributes, demography, and expertise of individual board members that could influence corporate environmental policy (Rao & Tilt, 2016b).

In nearly every organization, the CEO who is the Chief Executive Officer is the most influential decision maker (Quinn, 1985; Jiraporn, 2013). The position of CEO has always been regarded as one of the most powerful in a firm [9]. CEO's international experience can help the company create global competitiveness through international diversification. Such experience can develop the ability of executives to deal with unexpected problems and new challenges. Again, this experience equips executives with skills not available

in their own countries. Therefore, international experience has become a prerequisite for the position of CEO (Bass *et al.*, 2015; Carpenter, 2017; Daily, 2014). Therefore, companies continue to demand and reward CEOs with international experience, especially in this era of globalization (Sanda *et al.*, 2008; Wah, 2015). Hence, companies try only to attract foreign executives who can provide management talent and technical skills. Out of several dimensions of demographic diversity, gender is studied heavily (Hillman, 2015).

Gender diversity in board research is described based on three broad perspectives: a theoretical perspective, ethical perspective, and business case perspective. Scholars have indicated positive effects of gender diversity while using the theoretical lenses of the resource dependence theory (Salancik & Pfeffer, 1978), signaling theory (Connelly *et al.*, 2011), the resource-based view (Richard, 2000), stewardship theory (Gaur *et al.*, 2015) and upper echelon theory (Post & Byron, 2015).These theories broadly argue that gender diversity improves board functioning and firm performance which will likely reduce the possibility of corporate financial distress. In contrast, researchers have found negative effects of gender diversity while using the theoretical lenses of social identity (Abdullah *et al.*, 2019) and social categorization (Baklouti *et al.*, 2016). These theories find that gender diversity can lead to more monitoring (Adams & Ferreira, 2009) and lower stock value (Dobbin & Jung, 2011).

Theoretical Framework - Legitimacy Theory

Legitimacy theory explains that the organization and society closely work for each other, and this relationship is based on the notation of a "social contract" (Deegan 2002; Nurunnabi, 2016; Gray *et al.*, 1996). According to Suchman (1995), on the one hand, two types of legitimacy exist: strategic and institutional. Strategic legitimacy focuses on the organization's motives and desires. Neu et al. (1998) argue that legitimacy is a way of communicating and representing an organization's image. Moreover, Clarkson *et al*. (2008) suggest that legitimacy is a combination of reactive and proactive strategies. On the other hand, Comyns (2016) defines legitimacy as the degree to which stakeholders claim immediate and urgent action. Generally, an organization operating in society receives direct and indirect pressures from various stakeholders toward its diversified social and economic functions. Consequently, management engages with different socially beneficial programs, or at a minimum, attempts to avoid behaviors detrimental to society and its expectations (Khan *et al*. 2013). Organizations use sustainability reporting as a tool to communicate with society and legitimize its environmental performance to diverse stakeholders (Comyns, 2016; Lu *et al.,* 2015). As legitimacy is threatened when companies breach their social contracts (e.g., environmental protections), environmental reporting can be used to mitigate these pressures (Comyns, 2016). Management believes that legitimacy not only increases opportunities to attract economic resources and reduces threats from external pressures, but also to ensure social and political support.

METHODOLOGY

This study utilized an ex-post facto research design, focusing on the population of all listed consumer goods firms from 2011 to 2020. As of December 2020, 20 consumer goods firms were listed on the Nigerian Exchange Group (NGX). The study applied a sampling filtering technique that required specific criteria to be met by the selected companies. For data analysis, the research utilized analytical software, including Stata version 14 and Microsoft Excel. The collected secondary data underwent analysis through descriptive statistics, correlation, and regression analysis to derive meaningful insights.

Model Specification

To test the hypotheses formulated in the study and to achieve the objectives of the research, the study adopted and modified the study of Ong & Djajadikerta (2018) to express the econometric equation as

$$\mathbf{ESD_{it} = b_0 + b_1CEON_{it} + b_2BOGD_{it} + b_3BODN_{it} + RETA_{it} + e_{it}}$$

Where:

ESD	=	Environmental Sustainability Disclosure
CEON	=	Chief Executive Officer Nationality Diversity
BOGD	=	Board Gender Diversity
BOGN	=	Board of Directors Nationality
RETA	=	Return on Total Asset
β0	=	Constant Term
β1-β2	=	Slope Coefficient
e	=	Stochastic disturbance
i	=	ith firm
e	=	Stochastic disturbance
t	=	time-period

Descriptive Statistics Analysis

Each variable is examined in terms of the mean, standard deviation, maximum, and minimum, as displayed in the tables below.

Table 1

Variable	Obs	Mean	Std. Dev.	Min	Max
ensd	160	.1875	.3915378	0	1
ceon	159	.5157233	.5013317	0	1
bgdv	160	13.99069	10.43371	0	40
bodn	159	3.471698	2.318913	0	10
reta	160	6.9595	8.748588	-19.66	46.67

Source: Author's Computation 2023

Table 1 describes the nature of the data which was employed for this study. The mean value of environmental sustainability disclosure (ESD) is 0.19 indicating that the average value of (ESD) of the series is 0.19%. The standard deviation (Std. Dev.) of 0.39 indicates the dispersion from or spread in the series from their mean values. We also find that the mean value of CEO Nationality is 0.52 with a standard deviation of 0.50, which implies that the average CEO Nationality for firms under study is 52. For the variable of board gender diversity, the table reveals that, on average, it is 13.99 with a standard deviation of 10.43 and minimum/maximum values of 0 and 40, respectively.

Normality Test

In this study, the Shapiro-Wilk test for data normality is employed based on the findings of Mendes & Pala (2003), and Keskin (2006), who concluded that the Shapiro-Wilk test is the most powerful normality test for observations that are less than 2000 but greater than 30. Particularly, when testing for normality, where the probabilities > 0.05, it indicates that the data is normally distributed. Conversely, where the probabilities < 0.05, it indicates that the data is not normally distributed.

Shapiro-Wilk W test for normal data

Variable	z	Prob>z
ensd	3.721	0.00010
ceon	-6.991	1.00000
bgdv	3.385	0.00036
bodn	3.014	0.00129
reta	4.655	0.00000

Source: Author (2023)

Table 2 shows that the dependent variable of firm performance in terms of environmental sustainability disclosure has a z-statistics value of 3.72 with a corresponding probability of 0.00010. This implies that the dependent variable of firm performance, when measured in terms of environmental sustainability disclosure, is not normally distributed since the probability z-statistic is significant at a 1% level. In the same vein, the independent variables of board gender diversity, foreign board diversity, and the control variable of firm leverage are seen to have Z probabilities of 0.00000 during the period under consideration. This implies the non-normality of the variables of board gender diversity, foreign board diversity, and the control variable of return on total assets during the period under study. However, the results show that the independent variables of CEO Nationality presence have a z-statistics of –6.911 with a probability Z-statistics of 1.00000 i the data are normally distributed.

For the correlation between the independent variables and dependent variables of the study, the results presented in Table 3 show that there exists a positive association between the independent variable of CEO nationality (0.1074) and the dependent variable of Environmental Sustainability Disclosure during the period under study. There is a positive association between the variable of the board of directors' diversity (0.0367) and Environmental Sustainability Disclosure during the period under study. Further, the results show that there is a positive association between the variable of board gender diversity (0.3078) and Environmental Sustainability Disclosure during the period under study. Finally, the control variable of return on total assets (-0.3668) has a negative association with the dependent variable of Environmental Sustainability Disclosure during the period under study.

Correlation Analysis
Table 3: Correlation analysis

VARIABLES	ENSD	CEON	BOGD	BODN	RETA
ENSD	1.0000				
CEON	0.1074	1.0000			
BOGD	0.0367	-0.1303	1.0000		
BODN	0.3078	0.0319	-0.1973	1.0000	
RETA	0.5157	0.4705	-0.2595	-0.1353	**1.0000**

Author's Computation (2023)

Table 4.4 Binary Logistic Regression Estimates

ensd	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
ceon	2.178597	.8648904	2.52	0.012	.4834427	3.873751
bgdv	.0437237	.0325519	1.34	0.179	-.0200768	.1075243
bodn	.6180089	.1423432	4.34	0.000	.3390214	.8969965
reta	.1370133	.043053	3.18	0.001	.052631	.2213956
_cons	-7.540024	1.321231	-5.71	0.000	-10.12959	-4.950458

Logistic regression Number of obs = 158

LR chi2(4) = 76.66

Prob > chi2 = 1.0000

Log likelihood = -38.465683 Pseudo R2 = 0.4991

Mean VIF 1.46

The table above shows the results obtained from the logistic regression model employed to test corporate board diversity determinants of environmental sustainability likelihood in Nigeria. The result above reveals a Pseudo R^2 value of 0.50 which indicates that about 50% of the variation in the dependent variable has been explained by the independent and control variables in the model. This also means that about 50% of the variation in the dependent variable is left unexplained but has been captured in the error term. The model goodness of fit, as captured by the likelihood ratio (76.66) with the corresponding probability value 0.0000, which shows a 1% statistically significant level, reveals that the entire model is fit and can be employed for discussion and policy recommendation.

Discussions

CEO nationality diversity significantly impacts the environmental sustainability reporting of listed consumer goods firms in Nigeria during the study period. CEOs with foreign backgrounds contribute positively to environmental sustainability practices and associated disclosures of these firms. This finding aligns with prior expectations and is consistent with the studies conducted by Sumarta *et al.* (2021) and Shahab *et al.* (2019).

In contrast, board gender diversity has an insignificant positive effect on the environmental sustainability reporting of listed consumer goods firms in Nigeria during the period understudy. The presence of female

directors does not significantly influence the level of environmental sustainability reporting in these firms. This outcome contradicts initial expectations and is at odds with the findings of Orumwense & Osa-Izeko (2023) while supporting the research of Donkor *et al.* (2023) and Ujebe & Nwankwo (2022).

Furthermore, board diversity in terms of foreign directors has a significant positive impact on the environmental sustainability reporting of listed consumer goods firms in Nigeria during the period under review. Directors with foreign identities contribute positively to the firm's environmental sustainability practices and related disclosures. This finding is consistent with our initial expectations and corroborates the work of Ilogho (2017).

CONCLUSION AND RECOMMENDATION

This research investigates how diversity on corporate boards influences the disclosure of environmental sustainability practices among publicly listed consumer goods companies in Nigeria. The sampling method for this study ensures that only consumer goods firms with complete and relevant information are included. The findings from this research highlight the significant advantages (regarding environmental sustainability practices and their related disclosures) that can arise from appointing foreign CEOs. Based on the summary of findings and conclusions drawn, the researcher proposes the following recommendations:

Environmentally responsible companies should develop policies that facilitate the hiring of CEOs from diverse national backgrounds. If implemented, these policies will encourage environmentally friendly discussions and decisions, potentially leading to enhanced value for the firm.

Companies should aim to increase opportunities for women, as the emotional intelligence of female directors can boost the morale of management and staff, thereby improving employee productivity and elevating overall company performance.

Management should consider adopting policies that promote the hiring and retention of foreign nationals on corporate boards in Nigeria, as these individuals bring diverse perspectives, ideas, expertise, and international support, ultimately enhancing the firm's ability to make better and more effective decisions.

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