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Driving Market Performance through Sustainability: The Role of Board Committees and Climate Change Initiatives in Nigerian Firms

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ABSTRACT

This research assessed board sustainability committee, climate change initiatives and market performance of listed firms in Nigeria. The study was anchored on resource dependency theory and adopted the panel methodology. Using a panel ordinary least square regression, the findings revealed that engagement in climate change initiatives (CCI) was negatively associated with market performance, implying that firms involved in such initiatives may experience reduced performance, likely due to increased operating costs. Interestingly, the presence of a board sustainability committee (BSC) showed a negative coefficient, although not statistically significant. This suggests that firms with dedicated sustainability committees may experience slightly lower market performance. The study recommended that Government policies should incentivize firms to adopt sustainable practices by offering tax breaks or subsidies for investments in renewable energy, waste reduction, and eco-friendly technologies. Given the potential impact of board sustainability committees on market performance, regulatory bodies such as the federal reporting council of Nigeria should mandate the establishment of such committees in listed firms.

Keywords: Sustainability, SDG, Climate Change, Corporate Governance, Performance
JEL Classifications: M1, M2, M3, M4

1. INTRODUCTION

Firm profitability is commonly regarded as a necessary qualification for long-term firm existence and success; furthermore, the state of a firm affects the accomplishment of other financial objectives (Charles and Ochieng, 2023; Dodoo et al., 2022). Successful enterprises are a crucial component for developing countries. Numerous economists see them as analogous to an engine in shaping their economic, social, and political development of a nation. To thrive in a competitive business landscape, every company must function under circumstances of performance (Taouab & Issor, 2019). In Nigeria, several enterprises across different industries have shown strong financial success, while others are facing declining results. This continued decrease in financial performance has led to winding up and voluntary withdrawal from the stock market (Umar et al., 2024; Onwe et al., 2020).

Furthermore, sustainable development is the most pressing concern confronting society today. Presently, investors and other stakeholders in Nigeria and beyond are seeking a comprehensive understanding of businesses through corporate reporting (Erin and Olojede, 2024). In order to make better informed decisions,

stakeholders need information that helps them calculate an organization's total economic worth. Instead of depending just on economic data from the past, they want all the knowledge they can get their hands on about the present and the future. Providing comprehensive reports that furnish users with extensive data on all activities and uncertainties is in the public interest during this era of global financial and economic challenges, heightened unethical business practices, climate change, ozone depletion, water scarcity, and other issues characteristic of the current century (Emeka-Nwokeji and Osisioma, 2019).

Climate change has attracted growing interest among academics, practitioners, policymakers, and regulators over the past few decades (Baidya and Saha, 2024; Giannarakis et al., 2017; Omar et al., 2021), becoming a dominant issue on the economic, political, and business agenda. Caused by the excessive amount of greenhouse gas (GHG) emissions, global climate change is currently a major issue of concern for businesses, governments and other stakeholders (Bui et al., 2020; Downar et al., 2021), adversely affecting the environment, socio-economic systems, and subsequently human lives (Goworek et al., 2018; Sun et al., 2020). Hence, international organizations and national governments have introduced a number of initiatives, policies and practices to combat global warming and climate change (Baboukardos, 2018; Wisdom et al., 2022).

A multitude of Nigerian enterprises have significantly underperformed regarding environmental sustainability, climate change, general productivity, income creation, and profitability (Mishra, 2023; Odusanya et al., 2018). The dismal market performance is due to elevated manufacturing costs and existing macroeconomic circumstances. The business climate has remained quite unfavourable, with several enterprises, irrespective of their longevity, seeing a decline in profit margins. In recent years, several enterprises have migrated to adjacent African nations, notably Ghana. The situation has remained unabated despite the implementation of policy mix by successive governments (Odusanya et al., 2018).

Capturing the research gap, research endeavours aimed at identifying the fundamental drivers of market performance across a diverse array of enterprises under these regulatory adjustments have been limited and is lacking in developing nations. The study of corporate boards of directors has been a subject of continuous research in management for over a 100 years, contributing to a vast body of knowledge in the field of governance. The enduring interest in board research may be attributed to various factors, including the crucial role that boards are expected to fulfill in governance oversight, the perception that they sometimes fail to fulfill this role adequately, and their connection to well-known instances of corporate failures.

Shareholders are equally concerned about climate change, pollution, and other adverse environmental impacts since these factors affect business performance and demand accountability (Joshi & Li, 2016). Consequently, the subject of how organizations respond to climate change has captured the interest of management researchers and business ethics, who seek to understand the organizational factors that influence these responses (Hassan et al., 2024). Therefore, this study seeks to examine the effect of board sustainability committee and climate change initiatives on market performance of listed firms in Nigeria.

2. THEORY AND LITERATURE REVIEW

2.1. Conceptual Review

2.1.1. Sustainability practices

Sustainability practices encompass a wide range of concerns related to the environment, social impact, and governance (ESG). These practices have gained increasing prominence and are now placed high on the agendas of organizations (Chopra et al., 2024; Padilla-Rivera et al., 2025). Despite this, the study conducted by Kingston (2024) reveals that sustainability is not always the first topic that comes to mind in boardroom discussions. Nevertheless, it is still vital to businesses' competitiveness and day-to-day operations. Among the many problems that have long been discussed in connection to sustainability are natural catastrophes, labour relations, safety mishaps, and the total sustainability effect of diverse industries. Additionally, Daugaard (2020) highlighted the significant emphasis on the governance element within ESG, emphasizing the fiduciary responsibility of boards in overseeing companies' strategies, risk management, and capital allocation.

Enterprise risk management (ERM) is also seen to be an important tool for helping businesses pay more attention to the threats posed by social and environmental trends. Included in this is a change in stakeholder expectations, which may affect the company's capacity to reach its long-term goals. Galli (2021) supports this notion, highlighting the expansion of ERM to include ESG (environmental, social, and governance) risks, thereby establishing connections between risk, strategy, and decision-making processes. This approach enhances companies' resilience and competitiveness (Dang et al., 2021).

As competition in markets intensifies, corporations face unprecedented pressure to integrate sustainable practices into their operations. This is driven by the understanding that their financial success and stock performance are closely tied to the adoption of sustainability practices (Alshehhi et al., 2018; Dang et al., 2021). The incorporation of environmental, social, and economic practices into corporate strategies has witnessed a steady increase over the years. This is because these practices have proven to enhance brand image and financial performance of companies (Keskin et al., 2020). Consequently, many countries now prioritize the adoption of sustainability practices to improve the stock performance of their corporations (Alshehhi et al., 2018). There has been a recent uptick in the awareness of corporate sustainability among both investors and consumers, who see it as their civic duty to encourage environmentally responsible business operations. Sustainability has been a hot topic among investors for a long time, but recently, they've started to seriously investigate green initiatives that firms are offering (Keskin et al., 2020).

Moreover, according to O'Dwyer and Unerman's (2020) research, sustainability practices and enterprise risk management

(ERM) work hand in hand to improve measurement capabilities and meaningful disclosure of ESG information when ESG (environmental, social, and governance) factors are thoroughly integrated. They said that this makes it easier for the board and management to get their hands on the resources they need and allocate it wisely.

2.1.2. Climate change initiatives

Strategies for mitigating climate change, including the reduction of greenhouse gas emissions and the enhancement of renewable energy generation, are essential for the environment, economy, and energy sector (Ekemezie and Digitemie, 2024). Countries around have taken steps to address climate change, with Scandinavian nations exhibiting lower vulnerability and heightened preparedness to confront it. African nations exhibit significant vulnerability to climate change but possess little resilience and adaptation capability (Onyeneke et al., 2024).

The implementation of renewable energy presents prospects including energy accessibility, energy security, economic and social advancement, as well as environmental and health co-benefits. Nonetheless, obstacles include inadequate understanding, increasing energy demand, market inefficiencies, and limited raw material availability threaten broad implementation. Developed countries may enhance their efforts by implementing legislation to diminish carbon emissions in critical economic sectors, fortifying institutions, augmenting research capabilities and institutional training, and fostering international engagement and partnerships.

Corporations with high greenhouse gas emissions are essential in the fight against climate change, since they represent significant contributors to anthropogenic greenhouse gas emissions. Cadez et al. (2019) examined a conceptual model with 247 enterprises under the European Union's Emissions Trading Scheme (EU ETS) and found that market forces facilitate the adoption of proactive environmental initiatives by greenhouse gas-intensive firms. Companies that reported information surrounding GHG-related laws decreased their emissions more efficiently than those with lesser concerns about environmental policies (Tomar, 2023).

2.1.3. Market performance

Market performance refers to how successful a company is perceived by its shareholders. A higher stock price indicates a higher company value, leading to increased shareholder welfare through higher returns on investment (Sukesti et al., 2019). Companies with a strong firm value tend to attract investor interest and gain the trust of stakeholders. Firm value is not only an indicator of a company's current performance but also its future prospects. As a result, companies listed on stock exchanges strive to provide the most accurate information to the public regarding their company's condition. Market price is often considered relevant information that reflects a company's value (Sukesti et al., 2019).

2.2. Theoretical Review

Barney developed the resource-based theory in 1991, which focuses on how a company's resources contribute to its competitive advantage. On the other hand, resource dependency theory, as explained by Pfeffer and Salancik (2003), examines how external resources influence a company's decision-making process. This theory views the company as an open system that must establish interdependent relationships with external entities to minimize dependency and uncertainty for its survival. According to Edacherian et al. (2024), the board of directors serves as a resource provider, offering various benefits to the company. These include providing advice and guidance to facilitate strategic decision-making, acting as a communication channel with the external environment, establishing networks and connections with other companies, and enhancing the company's legitimacy. Zhu et al., (2024) suggests that the board of directors encompasses human capital (knowledge, reputation, and expertise) and relational capital (networks and channels), which influence both monitoring and resource provision. Sobhan et al. (2025) argue that directors contribute to improving a company's financial and non-financial performance by reducing its dependence on the external environment and enhancing transparency. Escandon-Barbosa et al., (2024) suggests that the corporate board can play a role in resource provision, thereby enhancing non-financial performance. Therefore, resource dependency theory explains the relationship between the board of directors and integrated reporting (IR) strategy (de Graaff and Steens, 2023).

2.3. Empirical Review

Using social and economic theory, Orazalin et al. (2023) looked at how board sustainability committees, process-oriented climate change initiatives, outcome-focused carbon performance, and market value are all related. Using a panel dataset including 8,408 observations from 35 countries spanning 2002-2019, the research found that increased actual GHG emissions were negatively correlated with market value. In addition, they proved that process-oriented climate change initiatives are linked to higher levels of greenhouse gas emissions by showing a positive association between these efforts and market value. Although outcome-based carbon performance is unaffected, the presence of a board sustainability committee has a favourable effect on market value. Their research proved that expected linkages differed across categories of countries, industries, and eras.

The impact of board characteristics on CSR reporting in China was investigated by Anyigbah (2023). These characteristics were committees, board meetings, board independence, board size, CEO duality, and board meetings. The dataset, which includes 9,842 firm-year observations from the Shanghai and Shenzhen stock exchanges from 2006 to 2019, shows that a more independent board, a larger board, and a board sustainability committee all improve CSR across all three pillars. The empirical models used in this analysis are Fully Modified Ordinary Least Squares (FMOLS) and Dynamic Ordinary Least Squares (DOLS). But the study found that having a CEO and a CFO is more likely to make CSR harder. Although this study fills some important gaps in our understanding of the connection between board composition and CSR reporting, there are still many questions that need answering before corporate boards, regulators, and practitioners can fully benefit from this information.

The level of climate change disclosure by energy corporations in Asia and Africa was studied by Asare et al. (2022), along with

the variables affecting these disclosures on a global, national, and firm-specific level. An unbalanced panel dataset including 31 businesses across 18 African and Asian nations from 2015 to 2020 was evaluated using a quantitative technique. To evaluate the level of climate change disclosure, we used data from the GRI database and created a composite index using the "GRI 305: Emissions" markers. The study's authors used a regression model to determine which characteristics were associated with climate change disclosure. Energy firms in Asia are more forthcoming with details than their African competitors. Size of the board, diversity of board members, multinational status, profitability, cross-listing status, involvement in the UN Global Compact, and the Human Development Index of the countries where businesses operate are all variables that influence climate change disclosure. Energy firms in Asia and Africa are heavily reliant on GRI 305: Emissions utilization, which is explained in this study. It adds to the little knowledge on climate change disclosure in Asia and Africa.

The impact of CEO traits on the financial results of manufacturing firms traded on the Nigerian Stock Exchange (NSE) was investigated by Odubuasi et al. (2022). The companies' annual reports from 2013 to 2021 were combed through for secondary data, which was then appropriated using an ex post facto research technique. Descriptive statistics, correlation, and panel regression analysis were used to investigate the data collected from 36 purposely selected firms. For manufacturing firms, the research found that, at the 1% significance level, CEO qualities significantly impact firm value and Return on Equity (ROEQ), whereas CEO attributes alone had a large impact on company performance. Instead than looking at CEO qualities separately, the study suggests that they should be considered in tandem as supplementary factors. Furthermore, it is not enough to just nominate a woman as CEO; a woman may be chosen to the position if she has the complementary attributes necessary to increase the firm's performance and value, just like a male CEO.

In their 2021 study, Nwobu et al. evaluated the oil and gas industries' yearly reports for the level of sustainability disclosure. Eight oil and gas businesses listed on the Nigerian Stock Exchange were surveyed for their sustainability disclosures during a 10-year period (2010-2019). The study used a desktop method and content analysis tool to gather this secondary data. Finding sustainability-related aspects in annual reports is the goal of content analysis of sustainability disclosures. Using a scoring methodology developed by the Global Reporting Initiative, the research determined the level of transparency. The level of candour on environmental harm and climate change is shockingly low, according to the report. Only 13.8% of companies acknowledged the impact they had on global warming and environmental degradation. On the other side, every single company came clean about its community initiatives, which this study views as a cover-up for environmental pollution. In order to better hold companies responsible and, hopefully, improve environmental compliance, the paper suggests stricter sustainability disclosure requirements in the oil and gas industry. This would benefit investors, environmental groups, and climate change activists.

New sustainability reporting methods and external assurance were investigated by Giron et al. (2021). The research used information from two databases: One maintained by Bureau van Dijk (Orbis) and the other by the Global Reporting Initiative (GRI) Sustainability Disclosure Database. The study used three models for data analysis: two logistic regression and one logistic regression using a sample of 366 major Asian and African companies who published sustainability reports in 2017 and incorporated the SDGs. Sustainability reporting and external assurance are positively associated with manufacturing sector participation and a higher number of female directors within organization management, according to the results. In addition, businesses' bottom lines improve when they participate in the industrial sector. By illuminating the root reasons and their relationship with business performance, the research tackles sustainability concerns in emerging nations.

Across a number of Chinese industries, Khwaja et al. (2021) looked at the correlations between gender diversity on boards and CSR success. Using Chinese sector data from 2009 to 2015, Ordinary Least Squares regression models are estimated. To handle robustness and endogeneity, we employ robustness tests and two-stage least squares (2SLS) methods. When evaluating companies with a wide range of ESG risk exposure, BGD has a positive effect in many different industries. Based on the findings, it seems that BGD may improve CSP and, with one female director (either independent or executive), the board may experience a decrease in ESG risk exposure. Depending on the effects of critical mass and independent directors, the study found that BGD enhances CSP in sectors where social and environmental risks are high, and it also has an effect on sectors where governance risks are high.

One hundred fifty publicly traded companies with shares traded on the Main Board of Bursa Malaysia Berhad were studied by Omar et al. (2021) to determine the variables impacting climate change reporting. The researchers looked at the association between climate change reporting and corporate governance. The research also looked at how a company's capacity to absorb information affected the correlations between CGFs and reports on climate change. The capacity of a company to absorb information is positively correlated with its reporting on climate change. In addition, the study's results imply that the absorptive capacity of the business moderates the associations between climate change reporting and corporate governance, specifically in relation to the CEO's environmental knowledge and the board's independence. In addition, the research shows that when a company reports on climate change, it improves its performance.

For fifty publicly traded financial companies between 2012 and 2018, Asiriuwa et al. (2020) looked at how different board elements affected how quickly the companies reported their financials. Using agency theory, this research surveyed fifty companies in Nigeria's financial sector to determine which board characteristics affect the timeliness of financial reporting. Criteria like as board size, independence, diligence, financial competence, and gender of the CEO were used to evaluate the features of the board. A logistic regression analysis was performed on the collected data. The results demonstrated an empirically positive relationship between the financial knowledge of the board and the timeliness of financial reporting. The promptness of financial reporting is inversely related to the board's size and independence. The association

between board diligence and the promptness of financial reporting is negative and inconsequential. It seems that the makeup of boards of Nigerian financial companies has a substantial impact on how quickly financial reports are prepared.

In a recent study, Aifuwa (2020) looked at how sustainability reporting affected the bottom lines of companies in developing countries. Researcher findings and recommendations were based on a thorough content analysis approach. Results on the impact of sustainability reporting on business performance were inconclusive according to the review of relevant literature. Sustainability reporting and company performance are positively correlated, according to many research. Secondly, using the fourth version of the Global Reporting Initiative (GRI) methodology for calculating the sustainability disclosure index via content analysis, researchers commonly utilize financial performance measurements like as profitability indicators (ROA and ROE) and market-based measures (EPS and DPS). Thirdly, in contrast to established areas, developing regions had a lower level of sustainability disclosure. Concerning the studied sector and the sample size, they found methodological flaws in the previous study. Additional study on the impact of sustainability reporting on company performance, using the suggested methodological improvements, is encouraged by this publication.

3. METHODOLOGY

The researchers for this study used secondary data and an ex-post facto research approach to look at how BSC, CCI impacts market performance of listed companies in Nigeria. During the 5-year period (2018-2022) for which data is accessible, the panel data set will include information from 22 chosen listed enterprises on the Nigerian stock market. This research employed a random sampling approach to ensure that each sector was represented. The goal of doing research after the event is to determine whether or not there was a causal link between the variables under investigation. We used E-view version 09 and descriptive and inferential statistics was employed. The Panel Ordinary Least Square approach was applied to check the relationship amid the variables.

3.1. Measurement of Variables

The variables discussed below show the variables adopted for this study:

Table 1 below shows the research variables and their definition.

3.2. Model Specifications

This study will be adapting the model of Orazalin et al. (2023), who examined board sustainability committees, climate change initiatives, carbon performance, and market value.

$$MKTP_{it} = \beta 0_{it} + \beta_1 BSC_{it} + \beta_2 CCI_{it} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \mu_i \quad (1)$$

Where
MKTP = Market performance
BSC = Board sustainability committee
CCI = Climate change initiatives
FSIZE = Firm size
LEV = Leverage
β_0 = constant term
β_1-β_5 = Coefficient of independent variables
μ_{it} = Error term.

4. DATA ANALYSIS AND INTERPRETATION

4.1. Descriptive Statistics

Table 2 shows the descriptive statistics of the dataset and a comprehensive overview of several key variables related to market performance, board sustainability committee, climate change initiatives, firm size, and leverage. Understanding these characteristics is crucial for gaining insights into the distribution, variability, skewness, and kurtosis of the data, which are essential for making informed decisions and conducting further statistical analysis.

Market performance (MP) is an essential indicator that indicates the overall efficacy of enterprises within the market. The average market performance number of 146.1383 indicates reasonable market performance overall, however there is considerable variety within the sample. The positive skewness of 2.267141 and elevated kurtosis of 7.619274 indicate a leptokurtic distribution characterised by heavier tails and a sharper peak compared to a normal distribution.

The board sustainability committee (BSC) variable indicates if a corporation has a specialised committee for sustainability issues. The average BSC rating of 0.554545 indicates that just over half of the enterprises in the survey has a dedicated sustainability committee. The standard deviation of 0.499291 indicates diversity in the existence of such committees across businesses. Climate change initiatives (CCI) denote the degree to which companies participate in efforts to combat climate change and promote environmental sustainability. The average CCI rating of 13.09017 indicates a modest level of participation in climate change measures across companies. The standard deviation of 14.70007 indicates heterogeneity in involvement levels, with some corporations demonstrating more proactivity in tackling climate change than their counterparts.

Firm size (FZ) is a crucial factor influencing a firm's resources, competencies, and market power. The average business size of 75.55027 indicates a modest firm size within the sample. The considerable standard deviation of 112.1348 underscores significant variety in business size, indicating that some organisations are either bigger or smaller than their counterparts. Leverage (LEV) denotes the degree to which companies depend on debt funding. The average leverage value of 24.49273 indicates moderate leverage throughout the sample. The standard deviation of 10.28683 indicates heterogeneity in leverage levels across enterprises, with some firms exhibiting greater or lower leverage ratios.

4.2. Panel Data Regression Analysis

4.2.1. Hausman test

The Hausman test results above indicate a statistically significant chi-square statistic of 36.894128 with 4° of freedom, yielding a P = 0.0000. This low P-value suggests strong evidence against

Table 1: Measurement and description of variables

Variables	Measurement	Source
Market performance	TOBINQ. Total assets minus book value of equity plus market value of equity divided by total assets.	Okere et al. (2024)
Board sustainability committee	A dummy value of 1 is assigned if the board has a sustainability committee, and 0 if otherwise	Orazalin et al. (2023)
Climate change initiatives	A dummy value of 1 is assigned if the firm fully instituted climate change initiatives and practices, and 0 if otherwise	Orazalin et al. (2023)
Firm size	Natural log of total asset	Okere et al. (2024)
Leverage	Ratio of total debt to total assets	Okeke et al. (2025)

Source: Author's computation (2024)

Table 2: Descriptive statistics matrix

Test	MP	LEV	FS	CCI	BSC
Mean	146.1383	75.55027	13.09017	24.49273	0.554545
Median	64.06800	12.92250	7.843900	16.60000	1.000000
Maximum	930.2000	492.1000	77.10000	66.60000	1.000000
Minimum	1.137000	0.135890	1.719000	16.60000	0.000000
Standard deviation	212.3591	112.1348	14.70007	10.28683	0.499291
Skewness	2.267141	1.725670	2.525780	1.396942	−0.219492
Kurtosis	7.619274	5.301599	9.437574	5.969468	1.048177
Jarque-Bera	190.2840	78.87509	306.9028	76.19116	18.34397
Probability	0.000000	0.000000	0.000000	0.000000	0.000104
Sum	15929.08	8310.529	1439.919	2694.200	61.00000
Sum sq. Dev.	4870409	1370589	23554.03	11534.25	27.17273
Observations	109	110	110	110	110

Source: Author's computation (2024)

Table 3: Hausman test matrix

Test summary	Chi- square statistic	Chi-square d.f.	Probability
Cross-section random	36.894128	4	0.0000

Source: Author's computation (2024)

Table 4: Panel regression

Dependent variable: MP			
Variable	**Coefficient**	**t-Statistic**	**Probability**
LEV	−0.880737	−4.664455	0.0000
FS	2.362272	1.586107	0.1160
CCI	−2.604171	−2.694423	0.0083
BSC	−34.20448	−1.729682	0.0869
C	264.4921	7.450521	0.0000
R-squared	0.806065		
Adjusted R-squared	0.779527		
F-statistic	30.37354		
Probability (F-statistic)	0.000000		
Durbin-Watson stat	1.398031		

Source: Author's computation (2024)

the null hypothesis that the random effects model is appropriate. Therefore, we reject the null hypothesis and conclude that the random effects model is not consistent compared to the fixed effects model. The implication of this result is that the panel data in this analysis likely exhibits correlation between the individual-specific effects (random effects) and the regressors. In other words, there are unobserved variables that are correlated with the independent variables, which violates the assumptions of the random effects model. As a result, using the fixed effects model, which accounts for individual-specific effects by including dummy variables for each individual or entity in the panel, would provide more reliable and unbiased estimates.

4.2.2. Panel ordinary least squares (fixed-effect test)

The regression analysis results presented above show empirical evidence of the effect of some variables on market performance (MP). Variables particularly within the context of firm-level characteristics such as leverage (LEV), firm size (FS), engagement in climate change initiatives (CCI), and the presence of a board sustainability committee (BSC) were explored. The coefficient estimates of these variables provide information on the magnitude and direction of the relationship between the independent variables and market performance. While the Probability value provides insight into the statistical significance of the variable's impact on the dependent variable. Firstly, leverage (LEV) reveals a significant negative relationship with market performance, as indicated by its coefficient of −0.880737 with a t-statistic of −4.664455 ($P < 0.0001$). This suggests that higher levels of leverage are associated with lower market performance, potentially due to increased financial risk and concerns among investors about the firm's ability to meet its financial obligations.

On the other hand, firm size (FS) exhibits a positive coefficient of 2.362272, although it fails to reach statistical significance at the conventional level ($P = 0.1160$). This implies that larger firms tend to have higher market performance, but the relationship is not strong enough to be considered statistically significant in this particular sample. Engagement in climate change initiatives (CCI) also shows a significant negative association with market performance, with a coefficient of −2.604171 and a t-statistic of −2.694423 ($P = 0.0083$). This result implies that firms actively involved in climate change initiatives may experience a reduction in market performance, possibly due to increased operating costs associated with sustainability measures or perceived risks among investors. Interestingly, the presence of

a board sustainability committee (BSC) demonstrates a negative coefficient of −34.20448, although it falls just short of statistical significance (P = 0.0869). This suggests that firms with a dedicated sustainability committee may experience slightly lower market performance, although further investigation is warranted to confirm this relationship. The constant term (C) in the model represents the intercept and is statistically significant with a coefficient of 264.4921 and a t-statistic of 7.450521 (P < 0.0001). This indicates that even when all independent variables are zero, there is still a significant baseline level of market performance.

Moving on to the effects specification, the regression employs a cross-section fixed effects model, utilizing dummy variables to account for unobserved heterogeneity across different firms. The model's goodness-of-fit is evaluated using the R-squared and adjusted R-squared values, which measure the proportion of variance in the dependent variable explained by the independent variables. Here, the R-squared value is 0.806065, indicating that approximately 80.6% of the variation in market performance is explained by the independent variables included in the model. The adjusted R-squared value, which adjusts for the number of predictors and penalizes model complexity, is slightly lower at 0.779527 but remains relatively high. The F-statistic assesses the overall significance of the regression model, testing the joint hypothesis that all coefficients are equal to zero. In this case, the F-statistic is 30.37354 with a P = 0.0000, indicating that the model as a whole is statistically significant. Finally, the Durbin-Watson statistic tests for autocorrelation in the residuals, with values close to 2 suggesting no autocorrelation. Here, the Durbin-Watson statistic is 1.398031, indicating the presence of positive autocorrelation in the residuals which suggests that further diagnostics and potentially alternative modelling approaches may be warranted.

CONCLUSION AND RECOMMENDATIONS

This study seeks to examine the effect of board sustainability committee and climate change initiatives on market performance of listed firms in Nigeria. Findings show that engagement in climate change initiatives (CCI) was negatively associated with market performance, implying that firms involved in such initiatives may experience reduced performance, likely due to increased operating costs. Interestingly, the presence of a board sustainability committee (BSC) showed a negative coefficient, albeit not statistically significant. This suggests that firms with dedicated sustainability committees may experience slightly lower market performance, although further investigation is needed to confirm this relationship. Arising from the findings of this study, the following recommendations are prescribed;

i. Government policies should incentivize firms to adopt sustainable practices by offering tax breaks or subsidies for investments in renewable energy, waste reduction, and eco-friendly technologies. This can help mitigate the negative impact of climate change initiatives on market performance by offsetting some of the associated costs
ii. Given the potential impact of board sustainability committees on market performance, regulatory bodies should mandate the establishment of such committees in listed firms. These committees should be empowered to oversee and drive sustainability initiatives within the organization, thereby enhancing transparency and accountability.

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