BOARD DIVERSITY, ESG REPORTING, AND MARKET VALUATION IN NIGERIA, GHANA, AND SOUTH AFRICA

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Abstract

This study examined the impact of board diversity and ESG reporting on the market valuation of manufacturing firms in Nigeria, Ghana, and South Africa between 2012 and 2023. This study used a quantitative, panel data, and ex-post facto design to examine how board characteristics affect ESG disclosure in listed manufacturing firms across Nigeria, Ghana, and South Africa. A purposive sample of 100 firms (8 from Ghana, 49 from Nigeria, and 43 from South Africa) was drawn based on data availability. Using panel data regression models and country-level fixed effects, the research analyzed how board gender diversity, board size, ESG disclosures, and firm-specific characteristics influenced firm value. The results indicated that ESG reporting and board size had a statistically significant and positive effect on market valuation in the full sample. However, board gender diversity did not exhibit a consistent or significant relationship with firm value. These findings provided empirical support for the value relevance of sustainability disclosures and structural board attributes in emerging African markets. The study concluded that effective ESG integration and optimal board composition enhance firm performance and investor confidence in Sub-Saharan Africa. The study recommended strengthening ESG reporting frameworks, optimizing board size for strategic oversight, fostering genuine gender inclusion on boards, and enhancing regional cooperation to promote best practices and attract long-term investment across Sub-Saharan Africa.

Keywords: Board Diversity, ESG Reporting, Market Valuation, Corporate Governance, Sustainability.

1. Introduction

In recent years, the convergence of corporate governance, sustainability imperatives, and market expectations has elevated the significance of board diversity and Environmental, Social, and Governance (ESG) reporting in both developed and emerging economies. Particularly in Sub-Saharan Africa (where regulatory frameworks are still maturing and market structures are evolving) corporate boards have become critical arenas for navigating complex ESG expectations. Among the continent's leading economies, Nigeria, Ghana, and South Africa offer unique insights into how diversity in board composition and ESG disclosure practices shape market valuation and investor confidence.

Board diversity, encompassing gender, age, experience, and ethnicity, has been increasingly recognized as a driver of board

effectiveness and ethical oversight (Blay et al., 2024; Yahaya et al., 2024). Diverse boards are more likely to challenge managerial decisions, advocate for broader stakeholder interests, and promote comprehensive ESG strategies. Simultaneously, the rise of ESG investing (driven by institutional and global capital markets) has created mounting pressure for firms to integrate non-financial disclosures into their core reporting systems (Saka et al., 2025; Lotsu, 2024).

Despite the global momentum, the African context remains under-examined in empirical literature, with existing studies often treating ESG and board governance as isolated phenomena. Yet, evidence is mounting that ESG-aligned governance structures, especially those emphasizing inclusivity and transparency, are directly linked to improved financial performance and firm valuation (Anifowose, 2025; Duho, 2024). South Africa's leadership in integrated reporting, Nigeria's regulatory reforms, and Ghana's evolving ESG disclosure norms provide fertile ground for comparative analysis.

This study investigates the interplay between board diversity, ESG reporting, and market valuation across Nigeria, Ghana, and South Africa. It answered a core research question: To what extent does board diversity influence ESG disclosure quality, and how does this relationship impact firm market valuation in these three African economies? The study builds on recent empirical evidence, utilizing cross-country comparative approaches to highlight both convergences and contextual differences.

2. Literature Review

2.1 Empirical Review

Empirical research has increasingly explored the relationship between board diversity, ESG disclosure, and firm valuation, particularly in emerging markets. In Sub-Saharan Africa, where corporate governance reforms are intensifying, scholars have examined how board composition and sustainability practices jointly influence corporate performance and market perception.

Board Diversity and Market Valuation

Recent empirical studies have emphasized the pivotal role of board diversity in shaping firm market performance in emerging economies. In a multi-country study across Sub-Saharan Africa—including Nigeria, Ghana, and South Africa (Blay et al. (2025) found that firms with more gender-diverse and heterogeneous boards tended to exhibit stronger market valuation metrics, such as higher Tobin's Q and price-to-book ratios. These findings suggest that diverse boards contribute to more effective strategic oversight, risk

management, and investor confidence, thereby influencing valuation.

Yahaya et al. (2024) provided further evidence from the Nigerian context, showing that board gender diversity and the presence of independent directors significantly correlate with improved market capitalization and shareholder value. The study linked these governance attributes with enhanced corporate transparency and accountability, which are increasingly rewarded by capital markets.

Saka et al. (2025), analyzing listed banks in Ghana, demonstrated that firms with diverse boards not only performed better on ESG metrics but also reported superior financial indicators, including market valuation. The authors concluded that board diversity enhances decision-making capacity, reduces informational asymmetries, and improves firm legitimacy in the eyes of investors.

Similarly, Bukari et al. (2024) found that ESG performance acted as a key moderator in the relationship between governance structures and firm valuation. Specifically, firms with structurally diverse boards and high ESG engagement experienced enhanced valuation outcomes across multiple sectors in Ghana and South Africa. Nyamedi (2024) also supported this trend in his firm-level analysis of Ghanaian public companies, where firms with inclusive and professionally diverse boards consistently showed better market value relative to their peers. His findings highlight the broader strategic value of governance diversity beyond compliance, especially in investor-sensitive environments.

These studies collectively reinforce the notion that board diversity is not only a governance best practice but also a financial performance enhancer, particularly in contexts where investor trust, reputation, and regulatory signaling are crucial. *H_{04}: Board diversity has no significant effect on market valuation.*

ESG Disclosure and Market Valuation

Anifowose (2025) examined ESG disclosure in relation to ownership structure in Nigeria and South Africa. Using panel data and moderation models, the study demonstrated that board independence and gender diversity significantly boosted ESG transparency, which in turn improved market capitalization and investor trust. Similarly, Duho (2024) found that mining firms with robust ESG frameworks in Ghana and South Africa exhibited stronger stock performance and institutional investor engagement, underlining ESG's financial relevance.

In a broader comparative study, Blay et al. (2025) investigated environmental sustainability reporting across firms in Kenya, Nigeria, Ghana, and South Africa.

They found that firms with larger, more gender-balanced boards were more likely to disclose comprehensive ESG information and were positively valued by the market. Furthermore, Bukari et al. (2024) identified ESG performance as a significant moderator in the relationship between corporate governance and firm valuation in developing countries. Firms that actively integrated ESG into their governance frameworks demonstrated superior return on equity and price-to-book ratios. o assess the financial implications of sustainability practices, the following hypothesis examines whether ESG reporting significantly influences firm market valuation: *H_{o3}: ESG reporting (ESG) has no significant effect on market valuation.*

Linking Board Diversity, ESG, and Firm Value

Empirical evidence from Osemene et al. (2024) and Nyamedi (2024) underscores that diverse boards in African contexts are instrumental in translating ESG strategy into value creation. They found that in Ghana and Nigeria, board diversity had a significant positive effect on ESG disclosure quality and was strongly correlated with higher firm value. Moreover, these studies noted that regulatory backing and stakeholder activism enhance the effectiveness of board diversity in promoting transparency.

Taken together, these findings affirm a strong empirical consensus: board diversity fosters better ESG disclosure, and both factors are positively associated with improved market valuation in Nigeria, Ghana, and South Africa. However, the extent of this relationship is mediated by factors such as sectoral dynamics, regulatory maturity, and institutional investor presence. In exploring the governance–performance nexus, this hypothesis tests whether board diversity independently contributes to explaining variations in firm market valuation:

2.2 Theoretical Framework

The relationship between board diversity, ESG reporting, and firm valuation is best understood through a multi-theoretical lens. This study draws primarily from Agency Theory, Stakeholder Theory, Resource Dependence Theory, and Legitimacy Theory to explain the underlying mechanisms linking governance attributes to sustainability performance and market valuation.

Rooted in the seminal work of Jensen and Meckling (1976), agency theory posits that corporate boards serve as a mechanism to mitigate conflicts between management and shareholders. Diverse boards—especially those with independent and gender-balanced compositions—enhance oversight, reduce managerial opportunism,

and are more likely to enforce comprehensive ESG disclosures (Yahaya et al., 2024). By improving transparency, board diversity directly contributes to market confidence and valuation.

Freeman's (1984) stakeholder theory broadens the firm's accountability beyond shareholders to include a wide array of stakeholders—employees, regulators, communities, and the environment. ESG reporting serves as a tool for aligning corporate behavior with stakeholder expectations. Diverse boards tend to be more empathetic and responsive to varied stakeholder concerns (Blay et al., 2024), making them instrumental in integrating ESG into strategic decision-making. This responsiveness often translates into reputational gains and market advantages.

This theory, developed by Pfeffer and Salancik (1978), suggests that board members provide critical resources, including information, access to networks, and legitimacy. Board diversity—especially through gender, ethnic, or professional heterogeneity—enhances the board's capacity to acquire and deploy strategic ESG knowledge (Saka et al., 2025). Such enriched capabilities improve the firm's ESG performance and signaling power to capital markets, thereby boosting valuation.

Legitimacy theory asserts that organizations seek societal approval to sustain their operations. ESG reporting is one way firms maintain legitimacy by demonstrating alignment with societal norms and sustainability values. According to Anifowose (2025), firms in South Africa and Nigeria with high ESG scores were more likely to attract long-term capital, as stakeholders perceived them as socially responsible and credible. Diverse boards serve as a legitimizing force, signaling inclusivity and ethical accountability.

The integration of multiple theoretical perspectives provides a comprehensive foundation for understanding the dynamics between board diversity, ESG reporting, and market valuation in this study. Drawing on agency theory, stakeholder theory, and resource dependence theory, the model posits that board diversity (encompassing factors such as gender, experience, and independence) plays a critical role in enhancing the quality and transparency of ESG reporting. Furthermore, legitimacy theory and stakeholder theory support the argument that high-quality ESG disclosures improve a firm's social license to operate and positively influence its market valuation by aligning corporate behavior with societal and investor expectations. Corporate governance structures are positioned as key mediating mechanisms

through which firm-specific characteristics are translated into financial outcomes. This integrated framework ensures that the study's empirical analysis is both theoretically sound and practically relevant, particularly within the evolving governance landscape of emerging African markets.

3. Methodology

This study employs a quantitative, explanatory research design to examine the causal relationships between board diversity, ESG reporting, and market valuation among publicly listed firms in Nigeria, Ghana, and South Africa. By utilizing a panel data approach, the research controls for firm-level and temporal heterogeneity, thereby enhancing the reliability and precision of the estimations. This study employs a quantitative, ex-post facto research design using panel data to examine the influence of board characteristics on ESG disclosure among listed manufacturing firms in Nigeria, Ghana, and South Africa. This design is suitable as it utilizes historical data to identify statistical relationships without any manipulation of variables. The target population consists of all manufacturing firms listed on the Nigerian Exchange (NGX), Ghana Stock Exchange (GSE), and Johannesburg Stock Exchange (JSE) from 2012 to 2023. A purposive sampling method was used to select 100 firms (8 from Ghana, 49 from Nigeria, and 43 from South Africa) based on the availability and consistency of ESG and board-related data throughout the study period.Secondary data for the study were primarily collected from annual reports and sustainability disclosures published on company websites and official stock exchange repositories. In addition, market valuation indicators and ESG scores were sourced from the MachameRatios database, where available. To address data gaps and ensure robustness, cross-verification was conducted using corporate filings and reputable open-access academic platforms such as ResearchGate and SSRN. This multi-source data triangulation enhances the validity of the research findings.

Variable	Proxy / Measurement
Board Diversity	Board gender diversity (% women), board size,
ESG Reporting	ESG Disclosure Score (0–100), or binary index (1 = disclosed, 0 = no disclosure)
Market Valuation	Market Capitalization
Control Variables	Firm size (log of total assets), firm age, leverage

To test the study hypotheses, the following panel regression model is estimated:

$$MV_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 BDIV_{it} + \beta_3 BSIZE_{it} + \beta_4 LEV_{it} + \beta_5 FSIZE_{it} + v_{it}$$

Where: MV is the market valuation for firm i in year t proxy Market Capitalisation; ESG_{it} is the ESG disclosure score for firm i in year t; BDIV is board diversity; LEV is financial leverage; FSIZE is firm size; ϵ_{it}, v_{it} are error terms.

The study applies Fixed Effects (FE) and Random Effects (RE) regression models to control for time-invariant unobserved heterogeneity. The Hausman Test is employed to determine the preferred model. To address endogeneity concerns, robust standard errors are used as robustness checks.

4. Results and Discussions

4.1 Data Presentation

Descriptive Statistics

Table 1a: Descriptive Statistics by Country – Ghana

Variable	Mean	Median	Max	Min	SD	N
MV	331334	39533	2056864	0	421560	70
ESG	46	48	66	0	14	87
BG	14	11	50	0	14	79
BS	7.9	8	13	4	2	79
LEV	59	59	107	3.4	23	84
FSIZ_1	11	12	14	8	1.9	84

Table 1b: Descriptive Statistics by Country – Nigeria

Variable	Mean	Median	Max	Min	SD	N
MV	190000000	6458842	5400000000	588	640000000	530
ESG	57	60	92	0	13	547
BG	14	13	67	0	14	521
BS	9.1	9	19	3	3	525
LEV	92	60	2354	12	204	528
FSA	17	16	22	11	2.3	528

Table 1c: Descriptive Statistics by Country – South Africa

Variable	Mean	Median	Max	Min	SD	N
MV	17151982	3160575	340000000	13436	41951988	431
ESG	62	65	96	0	19	486
BG	22	20	80	0	15	457
BS	9.8	10	25	5	2.8	466
LEV	51	50	299	0.15	21	464
FSA	15	16	20	9.8	2.1	465

Table 1d: Descriptive Statistics by Country – Full Sample

Variable	Mean	Median	Max	Min	SD	N
MV	100000000	3126210	5400000000	0	470000000	1031
ESG	58	60	96	0	17	1120
BG	18	16	80	0	15	1057
BS	9.4	9	25	3	2.9	1070
LEV	72	55	2354	0.15	145	1076
FSA	16	16	22	8	2.6	1077

Keys: **MV** – *Market Valuation*; **ESG** – *Environmental, Social, and Governance Disclosure Score*; **BG** – *Board Gender Diversity*; **BS** – *Board Size*; **LEV** – *Leverage*; and **FSA** – *Firm Size (Total Assets)*.
Source: Researcher's Computation (2025) - STATA 15.1

The descriptive statistics reveal notable differences among Ghana, Nigeria, and South Africa in terms of board features, ESG disclosure, and firm value. Nigeria records the highest market valuation (MV), averaging 190 million with a large spread, pointing to inequality driven by a few dominant firms. South Africa follows with 17 million, and Ghana ranks lowest at 331,000, indicating smaller firm size and limited capital access.

South Africa leads in ESG disclosure (mean = 62), board gender diversity (BG = 22), and board size (BS = 9.8), suggesting stronger governance frameworks and sustainability culture. Nigeria follows, while Ghana consistently lags behind in all governance indicators. These results reflect South Africa's advanced institutional standards compared to the relatively weaker systems in Ghana and Nigeria.

Leverage (LEV) is highest in Nigeria (mean = 92), reflecting greater financial risk, while South Africa remains more conservative (mean = 51). Firm size (FSIZ_1) also favors Nigeria, followed by South Africa and Ghana. Overall, South Africa displays the strongest governance profile, Nigeria dominates in firm scale but with risk, and Ghana remains underdeveloped in governance and financial dimensions. These patterns emphasize the need for contextual adjustments in subsequent analyses

Normality Tests
Table 2a: Normality Test Results (Sktest and Shapiro-Wilk) - Ghana

Variable	Pr(Skewness)	Pr(Kurtosis)	Adj Chi2(2)	Prob > Chi2	W	Prob > z
MV	0.0000	0.0023	22.1	0.0000	0.7769	0.0000
ESG	0.0000	0.0059	19.24	0.0001	0.90152	0.0000
BG	0.0034	0.7483	7.75	0.0207	0.92598	0.0002
BS	0.2591	0.0268	5.87	0.0532	0.96013	0.0146
LEV	0.0711	0.6293	3.61	0.1645	0.96682	0.0289
FSA	0.1035	0.0000	16.31	0.0003	0.91431	0.0000

Table 2b: Normality Test Results (Sktest and Shapiro-Wilk) - Nigeria

Variable	Pr(Skewness)	Pr(Kurtosis)	Adj Chi2(2)	Prob > Chi2	W	Prob > z
MV	0.0000	0.0000		0.0000	0.31776	0.0000
ESG	0.0000	0.0000		0.0000	0.79661	0.0000
BG	0.0000	0.0938	38.03	0.0000	0.97259	0.0000
BS	0.0000	0.3854	29.79	0.0000	0.96776	0.0000
LEV	0.0000	0.0000		0.0000	0.21947	0.0000
FSA	0.8933	0.0000	15.56	0.0004	0.9866	0.0000

Table 2b: Normality Test Results (Sktest and Shapiro-Wilk) – South Africa

Variable	Pr(Skewness)	Pr(Kurtosis)	Adj Chi2(2)	Prob > Chi2	W	Prob > z
MV	0.0000	0.0000		0.0000	0.42961	0.0000
ESG	0.0000	0.0000	64.22	0.0000	0.93465	0.0000
BG	0.0000	0.0272	26.83	0.0000	0.97421	0.0000
BS	0.0000	0.0028	27.78	0.0000	0.96837	0.0000
LEV	0.0000	0.0000		0.0000	0.82043	0.0000
FSA	0.0123	0.0489	9.42	0.0090	0.97616	0.0000

Table 2d: Normality Test Results (Sktest and Shapiro-Wilk) – Full Sample

Variable	Pr(Skewness)	Pr(Kurtosis)	Adj Chi2(2)	Prob > Chi2	W	Prob > z
MV	0.0000	0.0000		0.0000	0.22011	0.0000
ESG	0.0000	0.0000		0.0000	0.91608	0.0000
BG	0.0000	0.0166	65.22	0.0000	0.98152	0.0000
BS	0.0000	0.0049	56.39	0.0000	0.97577	0.0000
LEV	0.0000	0.0000			0.17801	0.0000
FSA	0.0005	0.9080	11.45	0.0033	0.9905	0.0000

Source: Researcher's Computation (2025) - STATA 15.1

The results from the normality assessments, including the Skewness/Kurtosis and Shapiro-Wilk tests—reveal that the dataset across Ghana, Nigeria, South Africa, and the full sample exhibits substantial deviations from normality. This non-normality is especially evident in variables central to the study such as Market Valuation (MV), ESG disclosure, and Leverage (LEV). For example, in Ghana, MV records a Shapiro-Wilk W value of 0.7769 and a chi-square probability of 0.0000, clearly rejecting normality. Although some governance metrics like Board Size (BS) and Leverage appear marginally normal under Skewness/Kurtosis, the overall indication from the Shapiro-Wilk test affirms systemic non-normality.

In Nigeria, the non-normality is even more severe. MV (W = 0.31776), ESG (W = 0.79661), and LEV (W = 0.21947) all

return p-values of 0.0000, confirming that these distributions are far from normal. Governance variables like BG and BS, despite their relatively higher W-values, are also non-normal. Interestingly, Firm Size (FSA) displays mixed indicators: a high Skewness p-value (0.8933) but a significant Kurtosis p-value (0.0000), suggesting issues with peakedness. South Africa exhibits a similar pattern, with all variables failing the Shapiro-Wilk test at the 1% level. Notably, even high-W variables such as FSA (W = 0.97616) and BS show significant skewness and kurtosis distortions.

In the pooled full sample, the situation intensifies due to aggregation effects. MV (W = 0.22011), ESG (W = 0.91608), and LEV (W = 0.17801) again reject normality strongly, while even variables that seemed borderline in national samples (like BG and FSIZ_1) fail joint normality tests. The consistent lack of normality across samples signals the need for robust estimation techniques such as log-transformations, bootstrapping, or quantile regressions. Given that non-normal distributions are common in financial data—particularly in emerging markets—these results reinforce the importance of methodological caution in statistical modeling and hypothesis testing.

Correlation Analysis

Table 3a: Pearson Correlation Matrix Results – Ghana

Variable	MV	ESG	BG	BS	LEV	FSA
MV	1					
ESG	0.5289	1				
BG	0.4333	0.263	1			
BS	0.4935	0.2878	0.2613	1		
LEV	-0.1649	-0.2182	0.076	0.1338	1	
FSA	0.5457	0.2613	0.2168	0.689	0.0291	1

Table 3b: Pearson Correlation Matrix Results - Nigeria

Variable	MV	ESG	BG	BS	LEV	FSA
MV	1					
ESG	0.2088	1				
BG	0.0247	0.2174	1			
BS	0.2768	0.3111	0.1322	1		
LEV	-0.0443	-0.3488	-0.0696	-0.1309	1	
FSA	0.4831	0.3859	0.2969	0.5869	-0.2546	1

Table 3c: Pearson Correlation Matrix Results - South Africa

Variable	MV	ESG	BG	BS	LEV	FSA
MV	1					
ESG	0.3214	1				
BG	0.1635	0.3802	1			
BS	0.3591	0.5612	0.1842	1		
LEV	0.0162	0.1099	0.159	0.101	1	
FSA	0.558	0.6718	0.3847	0.6016	0.1634	1

Table 3d: Pearson Correlation Matrix Results - Full Sample

Variable	MV	ESG	BG	BS	LEV	FSA
MV	1					
ESG	0.0809	1				
BG	-0.0173	0.3586	1			
BS	0.1971	0.4597	0.194	1		
LEV	-0.0203	-0.1847	-0.0624	-0.0988	1	
FSA	0.3946	0.435	0.2311	0.5228	-0.1073	1

Source: Researcher's Computation (2025) - STATA 15.1

The Pearson correlation analysis across Ghana, Nigeria, South Africa, and the full sample offers nuanced insights into the interrelationships among market valuation (MV), ESG disclosure, board gender diversity (BG), board size (BS), leverage (LEV), and firm size (FSA/FSIZ_1). Ghana's results show strong positive correlations between MV and ESG (r = 0.5289), BG (r = 0.4333), BS (r = 0.4935), and especially FSIZ_1 (r = 0.5457), suggesting that larger, more diverse boards and ESG-active firms tend to be more valuable. Nigeria presents weaker but consistent patterns, with MV moderately linked to FSIZ_1 (r = 0.4831) and ESG (r = 0.2088), while South Africa demonstrates the most coherent associations, especially between ESG and FSIZ_1 (r = 0.6718), and BS (r = 0.5612), highlighting a structured and institutionalized governance ecosystem.

When viewed comparatively, firm size stands out as the most consistently influential factor across countries, correlating positively with MV, ESG, and BS, which implies that resource availability and organizational complexity play a significant role in governance and sustainability performance. Board size also aligns positively with ESG across all countries, reinforcing the notion that larger boards are better positioned for effective oversight and disclosure. However, BG exhibits more varied influence—positively correlated with ESG and MV in Ghana and South Africa, but negligible in Nigeria— indicating that societal and regulatory environments mediate the influence of gender diversity on firm outcomes.

The full sample analysis confirms these patterns but with diluted strength due to cross-country variability. The highest correlations in the aggregated data exist between FSIZ_1 and BS (r = 0.5228) and ESG (r = 0.4597), emphasizing the central role of scale in shaping governance and disclosure. BG shows a weak and slightly negative correlation with MV (r = -0.0173), suggesting that its impact is not uniform across governance environments. LEV generally exhibits weak or negative relationships, underscoring potential conflicts between high debt usage and sound governance or ESG engagement. Altogether, the findings suggest that firm size and board structure are critical enablers of ESG and market performance, with cultural, institutional, and regulatory differences influencing the role of gender diversity and leverage across different African contexts.

Regression Analysis

Table 5: Panel Regression Results Summary

	Expected Sign	Ghana	Nigeria	South Africa	Full Sample
ESG	+	2301.758 (0.6030)	7225519 (0.0000)***	-229790 (0.0640)	2479597 (0.0010)**
BG	+	9126.592 (0.0300)*	-248864.2 (0.7880)	-220995.9 (0.0050)**	-17841.03 (0.9700)
BS	+	50216.04 (0.0630)	1.14e+07 (0.0290)*	-62456.14 (0.8940)	6221263 (0.0260)*
LEV	+	-1850.469 (0.3190)	59521.63 (0.4720)	-135317.9 (0.0030)**	41445.55 (0.4840)
FSA	+	-17486.06 (0.8310)	3.61e+07 (0.0430)*	2675001 (0.1020)	2.18e+07 (0.0210)*
Constant		31731.86 (0.9750)	-9.45e+08 (0.0020)**	4273953 (0.8600)	-4.51e+08 (0.0020)**
F-value (p)		2.18 (0.071)	6.7 (0.0000)***	3.99 (0.0015)	5.37 (0.0001)
Breusch-Pagan LM test		0 (1.0000)	1800.95 (0.0000)***	1444.18 (0.0000)***	3712.83 (0.0000)****
Multicollinearity (Mean VIF)		1.5	1.39	1.65	1.34
Portmanteau test (p)		8.435 (0.2958)	47 (0.4726)	43 (0.4713)	71.8777 (0.2607)
Ramsey RESET		3.97 (0.0123)*	403.65 (0.0000)***	402.37 (0.0000)***	416.73 (0.0000)***
Modified Wald test		3425.6 (0.0000)***	11700 (0.0000)***	7146668 (0.0000)***	23852647 (0.0000)***
Hausman test		134.34 (0.0000)***	N/A	18.15 (0.0000)***	N/A
Heteroskedasticity test		14.27	844.96 (0.0000)***	515.96 (0.0000)***	2000.47 (0.0000)***
RÂ² Within		0.173	0.0675	0.0504	0.0289
RÂ² Between		0.393	0.2193	0.0514	0.1176
RÂ² Overall		0.3677	0.1971	0.0565	0.1051
Observations		65	517	424	1006

Source: Researcher's Computation (2025) - STATA 15.1

The regression analysis results presented in Table 5 provide an international comparison of the determinants of market valuation based on ESG disclosure and governance factors across Ghana, Nigeria, South Africa, and a pooled full sample. The table includes coefficient estimates with p-values, diagnostic tests, and model fit statistics, allowing for a nuanced interpretation of the influence of ESG and related firm-level variables across varying institutional contexts.

The ESG variable shows a significant and positive influence on market value in Nigeria ($p = 0.0000$), and in the full sample ($p = 0.0010$), highlighting the importance of ESG disclosure in enhancing firm valuation, especially in environments with greater investor sensitivity. However, in Ghana, the coefficient is positive but statistically insignificant ($p = 0.6030$), while in South Africa it is negative and borderline significant ($p = 0.0640$), suggesting that ESG initiatives may be perceived as costly or ineffectively implemented in certain settings.

Board gender diversity has a statistically significant positive effect only in Ghana ($p = 0.0300$), implying that gender-inclusive governance structures are positively viewed by investors in this context. In contrast, it has a negative and significant association in South Africa ($p = 0.0050$), and is insignificant in Nigeria and the full sample, pointing to potential cultural or structural differences in how diversity is interpreted or its effect materialized.

Board size significantly enhances market valuation in Nigeria ($p = 0.0290$) and the full sample ($p = 0.0260$), moderately in Ghana ($p = 0.0630$), but has no impact in South Africa. This suggests that larger boards may provide better oversight and resource allocation in certain economies, although their effectiveness may depend on context-specific governance practices.

Contrary to expectations, leverage shows no consistent positive effect across models. It is only significantly negative in South Africa ($p = 0.0030$), indicating investor concern with higher debt levels. In all other models, leverage has insignificant effects, suggesting limited explanatory power in market value dynamics.

Firm size exerts a significant positive impact on market value in Nigeria ($p = 0.0430$) and the full sample ($p = 0.0210$), confirming its role as a structural driver of performance. In Ghana and South Africa, however, it remains statistically insignificant, hinting at weaker scalability effects or different valuation practices in these markets.

All models are well-specified in terms of multicollinearity, with mean VIFs below 2. The Ramsey RESET test flags potential

omitted variable bias in all cases ($p < 0.05$), especially in Nigeria and South Africa. Heteroskedasticity is a pervasive issue across countries as shown by significant Breusch-Pagan and Modified Wald test results ($p < 0.0001$), calling for robust standard errors or transformation methods in further analyses.

Serial correlation does not appear to be a major issue in any model, based on the Portmanteau tests ($p > 0.26$ across all samples). The Breusch-Pagan Lagrangian Multiplier test supports the use of fixed effects in all models, particularly for Nigeria, South Africa, and the full sample. The Hausman tests confirm the preference for fixed effects in Ghana and South Africa, while the full and Nigeria samples return invalid results, possibly due to specification or estimation issues.

The explanatory power of the models, as measured by R-squared values, is modest across the board. Ghana shows the strongest fit (within $R^2 = 17.3\%$, overall $R^2 = 36.8\%$), whereas South Africa and the full sample yield much lower explanatory capacity (overall $R^2 = 5.7\%$ and 10.5%, respectively). Nigeria lies in between, with overall $R^2 = 19.7\%$. These differences indicate that ESG and governance structures explain a larger portion of firm value variability in Ghana and Nigeria than in South Africa or the aggregated model.

In sum, the regression results illustrate that while ESG disclosure and governance factors such as board structure and firm size do matter, their effects are highly contextual. This implies that regulatory, cultural, and market maturity differences significantly mediate the value relevance of ESG practices across Sub-Saharan Africa

4.2 Discussion of Findings and Test of hypotheses

The first hypothesis of the study posits that ESG reporting has no significant effect on market valuation (H_{01}). This was tested using the fixed effects regression model for the full sample. The ESG coefficient was 2,479,597 with a p-value of 0.0010, indicating a statistically significant positive effect at the 5% level (Table 5). Consequently, we reject the null hypothesis and conclude that ESG reporting positively influences market valuation among manufacturing firms in Nigeria, Ghana, and South Africa. The model's F-statistic (5.37; $p = 0.0001$) further confirms the joint significance of the predictors.

This positive link suggests that ESG disclosures contribute to higher firm value, likely by enhancing transparency and stakeholder confidence. The finding supports prior research by Blay et al. (2025) who found ESG positively affected firm value in Ghana, and Aboud and Diab

(2018), who confirmed ESG relevance in emerging markets. Yahaya et al. (2024) similarly reported that ESG transparency boosts firm value in South Africa..

The mixed evidence may arise from regulatory, institutional, and investor differences across countries. South Africa's advanced ESG framework likely enhances the market impact of disclosures, unlike Nigeria or Ghana, where ESG norms are less enforced. Firm characteristics like size and stakeholder engagement, as well as cultural expectations, also shape investor responses. These factors highlight that ESG's valuation effect is context-dependent and influenced by both firm-specific and systemic variables.

The second hypothesis of the study states that board gender diversity has no significant effect on market valuation (H_{02}). This was tested using a fixed effects regression on the full sample. The coefficient for board gender diversity (BG) is –17,841.03 with a p-value of 0.9700, which is far above the 5% significance level (see Table 5). This result indicates that board gender diversity does not significantly influence market valuation in the studied manufacturing firms across Nigeria, Ghana, and South Africa. Therefore, we fail to reject the null hypothesis.

The insignificance of gender diversity suggests that the presence of women on corporate boards in these markets does not have a measurable impact on firm value. This contradicts studies such as Anifowose (2025), Duho (2024) and Blay et al. (2025, who found that female board participation positively affects firm performance through better governance and oversight.

These mixed outcomes may reflect contextual differences in how gender diversity is implemented and perceived. In many African firms, female board members may lack executive influence or hold token roles, which limits their strategic contribution. Weak enforcement of diversity regulations and prevailing gender norms can also reduce the substantive impact of board inclusiveness. Additionally, market actors may not yet fully recognize or reward diversity as a value driver. Thus, the non-significant effect observed could stem from both structural limitations and investor perceptions, highlighting the need for deeper integration of gender diversity into governance practices.

The third hypothesis of the study posits that board size has no significant effect on market valuation (H_{03}). Based on the fixed effects regression using the full sample, board size (BS) has a coefficient of 6,221,263 with a p-value of 0.0260, which

is significant at the 5% level (Table 5). This indicates a positive and statistically significant relationship between board size and market valuation among manufacturing firms in Nigeria, Ghana, and South Africa. Thus, the null hypothesis is rejected, confirming that board size significantly influences market valuation.

The findings imply that firms with larger boards tend to have higher market valuation, possibly due to greater access to diverse skills, oversight, and strategic guidance. This aligns with Osemene et al. (2024), who observed improved firm performance from larger boards in South Africa, and Nyamedi (2024), who associated board size with better decision-making in emerging markets.

These differing conclusions may stem from variations in institutional settings, governance structures, and how actively board members engage in strategic roles. In this study, the positive impact may reflect the need for diverse expertise to manage complex manufacturing environments in Africa. Where boards are expanded mainly for regulatory compliance or where board participation is weak, the size may not translate into better performance. Thus, the effectiveness of board size appears contingent on the governance context and how boards are structured and utilized across different countries.

5. Conclusions and Recommendations

The findings from this study reveal that ESG reporting and board size have a statistically significant and positive effect on market valuation across the full sample of firms in Nigeria, Ghana, and South Africa, suggesting that stakeholders increasingly value sustainability transparency and structured governance. Board gender diversity, on the other hand, showed no significant effect on market valuation in the pooled analysis, although it demonstrated some relevance in country-specific contexts. Leverage remained largely insignificant, while firm size was positively associated with market value in several models, emphasizing its importance in capital structure and investor perception. Based on these outcomes, it was recommended that policymakers in the studied countries continue to enhance ESG reporting frameworks and ensure their enforcement through stock exchange regulations and corporate governance codes. Stronger disclosure standards will support informed investor decisions and improve capital market efficiency. National policies should also address context-specific challenges to ESG integration and incentivize firms to engage in meaningful sustainability practices.

From a corporate governance perspective, it was recommended that firms adopt an

optimal board size that enhances strategic oversight without incurring excessive coordination costs. This study finds that larger boards positively influence market value, potentially due to diversified expertise and resource access. However, firms must also ensure the functionality and active contribution of each board member to realize the benefits.

Moreover, while gender diversity on boards did not yield a direct market valuation premium in the full sample, firms should not overlook its broader benefits. Boards should go beyond tokenism and create inclusive environments where diverse voices influence critical decisions. Empowering women with substantive roles on governance committees could enhance both governance quality and investor confidence.

Finally, this study recommends that regional cooperation be strengthened. Institutions such as the African Securities Exchanges Association (ASEA) should promote cross-country learning on governance and ESG practices. Facilitating benchmarking, capacity-building programs, and harmonized disclosure requirements will enable firms across Sub-Saharan Africa to align more closely with international best practices and attract long-term investment.

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