SemeAd 2024
XXVII Seminários em Administração

05, 06, 07 e 08 de novembro de 2024
ISSN 2177-3866

GIVING VOICE TO SILENCE: THE ROLE OF DEMOCRACY IN THE RELATIONSHIP BETWEEN BOARD STRUCTURE AND ESG PERFORMANCE IN AFRICA

ALAN BANDEIRA PINHEIRO
NEOMA BUSINESS SCHOOL

JOINA IJUNICLAIR ARRUDA SILVA DOS SANTOS
UNIVERSIDADE FEDERAL DO PARANÁ (UFPR)

Agradecimento à orgão de fomento:
The authors are grateful for the financial support provided by CAPES. (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil).

GIVING VOICE TO SILENCE: THE ROLE OF DEMOCRACY IN THE RELATIONSHIP BETWEEN BOARD STRUCTURE AND ESG PERFORMANCE IN AFRICA

1 INTRODUCTION

According to the World Economic Forum report (2019), extreme environmental events are significant threats to corporations, which may have their supply chains affected due to adverse weather conditions. In this vein, several organizations have developed sustainable practices, such as waste management, carbon reduction and environmental innovation (Lewellyn & Muller-Kahle, 2024). These sustainable initiatives, which cause a measurable impact at an environmental, social and governance level, can be defined as ESG performance.

Given the importance of this topic for academics and managers, several previous studies (Garcia et al., 2017; Miranda et al., 2023; Treepongkaruna et al., 2024) have investigated the drivers of ESG performance. The results of these research have shown that organizational factors, such as company size and financial performance, can affect ESG performance. Companies with more financial resources tend to have greater financial performance because they suffer greater pressure from stakeholders, in addition to following government laws and regulations (Singhania & Saini, 2023).

At the institutional level, the role of institutions on ESG performance is still not clear in the literature, especially in emerging and underdeveloped countries (Singhania & Saini, 2023). According to Barros et al. (2024), the ESG score varies according to the geographic region in which the company is based, and there is a gap in research on factors motivating ESG performance on the African continent (Abdelkader et al., 2024). Research in the area of environmental management in Africa focuses on unethical business behaviors, especially in extractive industries, and little has been investigated how the institutional environment of countries can help companies to have more ESG practices, helping to face global challenges (Daugaard & Ding, 2022).

The relationship between board structure and ESG performance has been deeply investigated in the literature. However, the literature review developed by Martiny et al. (2024) showed that there are no studies on this relationship on the African continent. Furthermore, adding the institutional environment to this relationship is of great value, as African countries lack strict environmental legislation, penalties and adequate incentives for ESG practices and efforts (Guidolin & La Ferrara, 2007). Furthermore, the African institutional environment has problems that need to be overcome, such as high rates of violence, poverty, corruption and lack of voice for citizens (Githaiga & Kosgei, 2023).

Therefore, the purpose of this paper is to examine the moderating role of democracy in the relationship between board structure and ESG performance of African companies. To achieve the research objective, we investigated the ESG performance of 208 companies based in ten African countries for a period of five years (2017-2021). Based on the paper by Githaiga and Kosgei (2023), who identified important characteristics of the board structure in East Africa, we defined the board structure: gender diversity, board size and experience of board members.

Combining a symmetric approach (panel data regression) and asymmetric approach (fuzzy set QCA), the findings showed that in countries with higher levels of democracy, the presence of women and smaller boards of directors are drivers of superior ESG performance. These findings contribute theoretically by filling the gap that existed regarding the lack of research on ESG performance in Africa, but they also make important practical contributions.

This research provides practical implications, which can influence the development of public policies on the African continent in order to build a sustainable future. Governments

need to be aware that by encouraging democracy they are promoting greater development of ESG practices by companies in different industries and not just in the extractive sector. Managers of African companies must be aware that ESG performance can replace the lack of trust that investors have in companies based in contexts with poor regulatory and governance quality.

This research is structured as follows. The following section presents Institutional Theory, which provides basic concepts for interpreting the results of research hypotheses. Section 3 presents the research methods in detail. Section 4 corresponds to the analysis of the statistical tests and section 5 presents the discussions and theoretical and practical implications of the results. Finally, section 6 concludes the research by highlighting the main findings, limitations and suggestions for future studies.

2 INSTITUTIONAL THEORY AND HYPOTHESES

Institutional Theory has become one of the most popular theoretical lenses used to approach environmental management, as it collaborates with the investigation of factors external to organizations that can shape corporate strategies to combat climate change (Alonso-Almeida et al., 2021). Institutional theory asserts that companies adopt sustainability initiatives not only because of their economic appeal, but also because of institutional reasons exercised through normative, coercive and mimetic forces (DiMaggio & Powell, 1983). These forces are outside organizations and can shape their behavior (Alshbili & Elamer, 2020).

One of the main constructs of institutional theory is the definition of institutional isomorphism. This approach has been used in the search to clarify how, in practical and structural terms, organizational changes occur (Amoako et al., 2021). According to DiMaggio and Powell (1983), isomorphism is a process that involves the strategies and behavior of organizations that aim to resemble their practices to another leading firm. In this vein, in order to maintain legitimacy and resemble the most prominent company in their industry, companies copy ideas or behaviors, such as ESG practices. Often these practices developed by the leading company can be developed by institutional forces, such as environmental regulations (Kim et al., 2024).

In this sense, the country's institutional environment, that is, political and socioeconomic factors directly influence the adoption of sustainable practices by companies (Maama, 2021). The study by Kılıç and Kuzey (2018) found that countries that are economically and politically advanced, with a higher level of transparency and less corruption contribute to helping companies disclose more ESG information. Additionally, in a country with a scenario of greater economic freedom, companies in the energy sector tend to have better ESG performance (Pinheiro et al., 2024). However, it is still unclear how the institutional environment encourages ESG performance in companies based in Africa (Githaiga & Kosgei, 2023).

Previous studies have argued that, from the lens of institutional theory, countries with more robust economies tend to be home to more profitable companies, which have greater capital to invest, promote and disseminate ESG activities (Maama, 2021). However, in developing countries, companies have lower ESG performance due to weak regulations and governance standards, as in these economies, the institutional structure is weak and there are high rates of corruption and a low level of democracy (Singhania & Saini, 2023).

2.1 Hypothesis development

The female presence on the board of directors can positively influence the social and environmental performance of a company (Jouber, 2022), as women who occupy management positions add knowledge, skills and principles that complement the boards of directors, when compared to their male counterparts: male colleagues (Kuzey et al., 2022). Gender plurality

positively influences the ESG score, showing that having a greater balance between male and female directors on companies' administrative boards plays a fundamental role in sustainability performance (Romano et al., 2020). Therefore, we argue that:

H1: Gender diversity on the board positively affects ESG performance.

The impact of board size on ESG performance presents different perspectives. Larger, more diverse boards can incorporate social and environmental issues as more stakeholder connections and opportunities can be developed (Erauskin-Tolosa et al., 2020; Sepulveda-Nuñez et al., 2024). On the other hand, large boards may be less efficient because management oversight may be weakened, while smaller boards may experience fewer challenges and be more effective in monitoring management (Treepongkaruna et al., 2024). Previous literature is inconclusive regarding board size and companies' environmental practices. However, we consider that smaller boards can be more efficient, especially in contexts of scarcity of resources, such as in emerging countries. Therefore, we argue that:

H2: Board size negatively affects ESG performance.

The concentration of experienced members, with specific perspectives and connections are important factors for high ESG performance (Lewellyn & Muller-Kahle, 2024). Although a board's ability to disseminate social initiative reporting information and engage in sustainable practices depends on the expertise of the board chair, all board members have an important role in strategic decisions (Tarus et al., 2023). By encompassing legitimacy assurance resources, connections, external knowledge, complementary skills, experience and guidance, board members with diverse experience will likely understand the potential negative impacts that social and environmental initiatives can have on corporate credibility and legitimacy (Al-Mamun & Seamer, 2021). Therefore, we argue that:

H3: Board member experience positively affects ESG performance.

The increase in ESG scores tends to be characterized by countries that have a high degree of democratic representation in their political system (Acheampong et al., 2022), that appear to exert social pressure and have the necessary regulations for companies to act more responsibly (Daugaard & Ding, 2022). When considering the configuration of the board, it is observed that greater diversity, in terms of gender and professional experiences, demonstrates greater influence in relation to social sustainability, suggesting that greater board diversity has been a motivational factor for companies considered socially sustainable (Fernandes et al., 2023). From this perspective, in more democratic countries, companies can have a more diverse board, and this can positively affect ESG performance. Therefore, we argue that:

H4: The level of democracy positively affects the relationship between board configuration and ESG performance.

After developing these four research hypotheses, we designed the theoretical model that summarizes our study (See Figure 1).

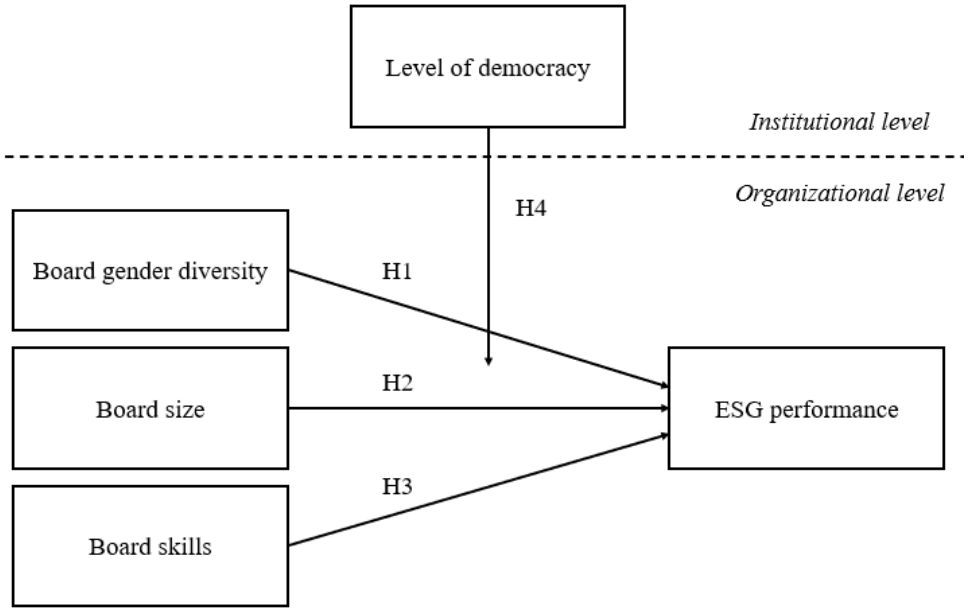

Figure 1. Conceptual research model.

3 RESEARCH DESIGN

The initial sample for this research was made up of all 305 companies on the African continent in the Refinitiv Eikon database. As 97 companies did not have information available, the final sample covers 208 companies based in 10 African countries. Our initial sample comprises observations spanning five years (2017-2021). Before 2017, ESG performance information was available to few African companies in the database. African companies began to engage with ESG in 2017, two years after the UN Global Compact. 2021 was the year with the most recent information when data was collected. Table I displays the distribution of firms by country and sector.

Table I. Sample distribution across countries

Country/Sector	CC	CNC	ENE	FIN	HCA	IND	MAT	RES	TEC	UTI	Total
Egypt	4	4	1	10	4	2	2	5	2	0	34
Kenya	0	0	0	0	0	0	0	0	1	0	1
Mauritius	0	0	0	1	0	0	0	0	0	0	1
Morocco	3	7	1	12	2	6	6	2	4	2	45
Nigeria	0	0	1	4	0	0	1	0	0	0	6
South Africa	18	17	3	19	4	12	21	14	8	0	116
Togo	0	0	0	1	0	0	0	0	0	0	1
Tunisia	1	0	0	0	0	0	0	0	0	0	1
Uganda	0	0	0	1	0	0	0	0	0	1	2
Zimbabwe	0	1	0	0	0	0	0	0	0	0	1
Total	26	29	6	48	10	20	30	21	15	3	208

Note: CC: Consumer Cyclical. CNC: Consumer Non-Cyclicals. ENE: Energy. FIN: Financials. HCA: Health Care. IND: Industrials. MAT: Materials. RES: Real Estate. TEC: Technology. UTI: Utilities.

The final sample encompasses an unbalanced panel of 208 companies based in different parts of the African continent. South Africa has the largest number of companies, representing

55.76% of the sample. Next, Morocco and Egypt occupy the second and third position, respectively, with 45 and 34 companies. The financial, basic materials and non-cyclical consumption sector has the largest number of companies in the sample, representing 23.07%, 14.42% and 13.94% respectively. In contrast, the utilities sector has only three companies in our sample.

Our dependent variable is the companies' ESG performance, which was collected in the Refinitiv Eikon database. This database covers 80% of the global capitalization market and is widely used in academic research. Each company is assigned a score based on its corporate reporting, which varies from 0 (lowest ESG performance) to 100 (highest ESG performance). This variable is divided into ten main themes: resource use, emissions, innovation, workforce, human rights, community, product responsibility, management, shareholders, CSR strategy. Table II shows the definition and measurement of all model variables.

Table II. List of all variables

Variables	Description	Variable type
ESG	ESG performance: This variable is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars, ranging from 0 (lowest ESG performance) to 100 (highest ESG performance).	Dependent variable
BGENDER	Board Gender diversity: This variable measures the percentage of women present on the board.	Independent variable
BSIZE	Board size: This variable measures the number of members on the board of directors.	Independent variable
BSKILLS	Board specific skills: Percentage of board members who have either an industry specific background or a strong financial background.	Independent variable
ROA	Return on Assets: Net Income/Total Assets.	Control variable
FIRMSIZE	Company size: Natural logarithm of the company's total assets.	Control variable
LEVERAGE	Financial leverage: Total Liabilities/Total Assets.	Control variable
FRISK	Firm risk: Total debt/Total Assets.	Control variable
MKTCAP	Market capitalization: It represents the sum of market value for all relevant issue level share types. The issue level market value is calculated by multiplying the requested shares type by latest close price.	Control variable
INDUSTRY	Industry impact: 1= if the company operates in the energy, utilities, materials and industry sectors; 0 = otherwise	Control variable
DEMOC	Country's level of democracy: This variable is calculated by the average of three indicators: participation, rights, and inclusion and equality, ranging from 0 (least democracy) to 100 (greatest democracy).	Moderating variable

Based on the paper by Githaiga and Kosgei (2023), who identified important characteristics of the board structure in East Africa, we defined the independent variables: gender diversity, board size and experience of board members. Gender diversity is measured by the percentage of women on the board, board size represents the number of members on the board and board experience reflects the percentage of members who have a background in the industry in which they are operating or have strong financial background.

We added six control variables to the models, which affect ESG performance according to previous studies. Companies that have greater financial performance (ROA, firm size and market capitalization) tend to have greater environmental and social performance (DasGupta & Roy, 2023). Financial leverage, which is a proxy for company solvency, is another metric that can affect performance in ESG activities (Pozzoli et al., 2022). Companies that are more active in ESG practices have the lowest level of firm risk (Shakil, 2021). Finally, companies that

operate in sensitive industries produce the best ESG in emerging countries (Garcia et al., 2017). All independent and control variables were collected from the Refinitiv Eikon database.

As a moderating variable of the relationship between board structure and ESG performance, we use the country's level of democracy. This variable was collected from the Ibrahim Index of African Governance (IIAG), which was developed by the Harvard Kennedy School of Government and has already been used in previous studies (Inekwe et al., 2021). This metric is calculated through three pillars: I) participation, II) rights and III) inclusion and equality.

In view of our research purpose, we chose panel data regression (symmetric analysis) and fuzzy set qualitative comparative analysis (asymmetric analysis) to analyze the data. Panel data regression is appropriate because we have data from five years (2017-2021), and it is important to check ESG performance over the years. Furthermore, we used panel fixed effects, since this type of effect must be used to avoid the problem of unobserved heterogeneity bias (Hair Jr et al., 2019). In addition to the main tests, we conducted additional tests to ensure the reliability of the findings, such as VIF (variance inflation factor), Breusch-Pagan test and GMM models to confirm the absence of endogenous regressors (Hair Jr et al., 2019). Our econometric model is expressed as follows:

$$ESG_{it} = \beta_{it} + \beta_1 BGENDER_{it} + BSIZE_{it} + BSKILLS_{it} + ROA_{it} + FIRMSIZE_{it} + LEVERAGE_{it} + FRISK_{it} + MKTCAP_{it} + INDUSTRY_{it} + DEMOC_{it}\ \theta_i + \varepsilon_{it}$$

To confirm the effects of explanatory variables on ESG performance, we used an asymmetric analysis, which is still rarely used in studies on environmental management. Fuzzy set Qualitative Comparative Analysis (fsQCA) is an excellent technique that provides more detailed insights into the variable configurations that lead to high levels of the dependent variable (ESG performance). This type of analysis allows the researcher to identify the variety of paths in which a common outcome is reached. Following the procedure of this type of technique, we standardize and calibrate the data between 0 and 1 and prepare the truth table with all possible configurations, considering ESG performance as the outcome (Bolourian et al., 2023).

The analyzes in this study were performed using STATA software version 14.0 and fsQCA 3.1b software.

4 RESULTS

4.1 Descriptive and bivariate analysis

Table III presents the descriptive statistics of all study variables. ESG performance, which ranges between 0 and 100, has a mean of 46.37. This means that the companies analyzed made 46% of the total 100%, with a minimum of 1.31 and a maximum of 88.78. Gender diversity has a mean of 26.02, indicating that 26% of African board members are women. The board size has a mean of 10.94, ranging from boards with just 1 member to boards with 20 members. 52.65 of African board members have experience in the industry in which they operate or have a strong financial background.

Table III. Descriptive statistics

Variables	25%	Mean	75%	Std.dev.	Minimum	Maximum
ESG	33.63	46.37	61.48	19.27	1.31	88.78
BGENDER	18.18	26.02	33.33	13.78	0.00	75.0
BSIZE	9.00	10.94	11.00	2.98	1.00	20.0

BSKILLS	42.86	52.65	66.67	21.30	0.00	100
ROA	0.02	0.06	0.09	0.08	-0.13	0.61
FIRMSIZE	8.95	9.41	9.76	0.67	7.44	11.26
LEVERAGE	0.44	0.60	0.78	0.22	0.00	1.36
FRISK	0.09	0.23	0.34	0.16	0.00	0.73
MKTCAP	-0.23	0.10	0.25	0.69	-1.00	7.88
INDUSTRY	0.00	0.28	1.00	0.45	0.00	1.00
DEMOC	50.4	63.24	75.03	18.61	19.33	81.33

ROA presents a mean of 0.06, with a maximum reaching 0.61 and a minimum as low as -0.15. The company size has a mean of 9.41 and the minimum and maximum are not that far apart, which may indicate that companies vary little in terms of total assets. In relation to the other control variables, leverage has a mean of 0.60, firm risk a mean of 0.23 and market capitalization a mean of 0.10. 28% of the sample is made up of industries operating in sensitive sectors. The national democracy index has a mean of 63.24, with a minimum of 19.33 and a maximum of 81.33.

Table IV displays the correlation matrix between the variables. The matrix reveals that all variables are correlated with the dependent variable, except market capitalization. The matrix reveals that all variables are correlated with the ESG dependent variable, except market capitalization. The intensity of the correlations between the explanatory variables is low, that is, below 0.80. This may indicate the absence of multicollinearity between the variables. To prove this absence, the VIF test was applied to the econometric models.

Table IV. Correlation coefficients

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) ESG	1.00									
(2) BGENDER	0.44***	1.00								
(3) BSIZE	0.26***	0.20***	1.00							
(4) BSKILLS	0.22***	0.27***	-0.00	1.00						
(5) ROA	0.10**	0.15***	-0.04	0.05	1.00					
(6) FIRMSIZE	0.33***	0.00	0.44***	0.09*	-0.31***	1.00				
(7) LEVERAGE	0.10***	0.01	0.08**	-0.08*	-0.38***	0.37***	1.00			
(8) FRISK	-0.12***	-0.04	-0.17***	0.07**	-0.03	-0.26***	0.04	1.00		
(9) MKTCAP	-0.01	0.02	-0.00	-0.01	0.08*	0.03	-0.04	-0.03	1.00	
(10) INDUSTRY	0.06*	-0.02	-0.05	-0.07**	0.14***	-0.13***	-0.14***	-0.07**	0.09***	1.00
(11) DEMOC	0.39***	0.42***	0.13***	0.50***	0.07	0.05	-0.17***	0.10***	-0.07**	0.06*

Note: ***: <0.01; **:<0.05; *<0.10

4.2 Multivariate analysis: symmetric approach

Table V presents the results of the panel data analysis, operationalized to test the four research hypotheses. Adjusted R2 values across all models range from 30% to 40%. This implies that the variables we include explain the most variation in ESG performance.

Our findings show that gender diversity has a positive effect on the ESG performance of African companies (coefficients = 0.25***; 0.36***). In practice, this means that the presence of women on boards favors greater corporate engagement in environmental, social and governance activities. The results reveal that board size has a negative effect on ESG performance (negative and significant coefficients = -0.69**; -3.11***). The variable skills of

board members were significant and negative (coefficient = -0.27***) in Model 6. However, in Model 3 it was insignificant. Therefore, the result for this variable is not conclusive.

Table V. Panel data analysis (Fixed effects)

	Model 1 Coef.	Model 2 Coef.	Model 3 Coef.	Model 4 Coef.	Model 5 Coef.	Model 6 Coef.
BGENDER	0.25***			0.36***		
BSIZE		-0.69**			-3.11***	
BSKILLS			0.05			-0.27***
ROA	25.16*	29.24**	29.27**	26.21*	27.19**	27.54*
FIRMSIZE	6.07***	6.66***	5.59***	7.71***	4.96***	7.88***
LEVERAGE	3.63	3.89	4.48	-0.76	1.67	-2.86
FRISK	-6.71	-11.42*	-8.86	-4.08	-13.35**	-6.49
MKTCAP	0.01	0.31	0.13	-0.26	0.14	-0.32
INDUSTRY	6.06***	6.31***	6.47***	4.12*	6.63***	5.83***
DEMOC	0.40***	0.52***	0.47***	0.45***	0.54***	0.75***
BGENDER*DEMOC				0.01***		
BSIZE*DEMOC					0.04***	
BSKILLS*DEMOC						-0.00***
Obs.	325	325	325	325	325	325
R-squared	0.3968	0.3856	0.3791	0.3432	0.3791	0.3161
F (Prob > F)	25.66***	24.47***	23.81***	20.38***	23.81***	18.02***
VIF	1.43	1.40	1.40	3.19	1.72	2.04
Breusch-Pagan test	8.54	10.66	11.38	3.59	4.75	8.06
Endogeneity	No	No	No	No	No	No
Year effect	Yes	Yes	Yes	Yes	Yes	Yes

Note: ***p<0.01. **p<0.05. *p<0.10.

Regarding the control variables, ROA and company size were significant and positive in all models. This supports previous studies that have already found that companies with greater financial performance tend to have more resources to invest in ESG activities. The firm's risk variable showed instability in the econometric models, being significant and negative in some models and insignificant for determining ESG performance in most cases. Our findings showed that industry has a positive effect on ESG performance. This means that companies that operate in industries directly linked to the environment tend to have greater engagement with ESG activities.

The results for democracy as a control variable show that this variable positively affects ESG performance. Therefore, in Africa, ESG performance is not just explained by organizational factors, as institutional factors matter. In Models 4, 5 and 6, in which democracy is the moderating variable, the results show that democracy positively strengthens the relationship between gender diversity and ESG performance, as well as the relationship between board size and ESG performance. These results indicate that ESG performance is superior in companies with more women on the board and fewer board members based in countries with a high level of democracy.

4.2.1 Additional analyzes: Alternative proxy for ESG performance

In line with previous studies, we changed the nature of the dependent variable to conduct new tests and give greater validity to the results. As the mean value of ESG performance was 46.37, we transformed this variable from continuous to binary. Companies that were above the average scored 1, companies below the average scored 0. Table VI expresses the results of additional analyses.

Table VI. Logistic Regression Results

	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
BGENDER	0.02**			0.05**		
BSIZE		-0.04*			-0.24***	
BSKILLS			0.00***			-0.03***
ROA	3.46	3.87*	3.77*	3.64	3.63	3.45
FIRMSIZE	0.41	0.42	0.37	0.48*	0.30	0.51*
LEVERAGE	1.96*	2.08**	2.12**	1.67**	1.76**	1.57**
FRISK	-1.83**	-2.15**	-2.03**	-1.81**	-2.23***	-2.07**
MKTCAP	0.07	0.12	0.10	0.03	0.09	0.05
INDUSTRY	0.70**	0.69**	0.71**	0.50*	0.67**	0.61**
DEMOC	0.03***	0.04***	0.04***			
BGENDER*DEMOC				0.00***		
BSIZE*DEMOC					0.03**	
BSKILLS*DEMOC						0.00***
Obs.	325	325	325	325	325	325
Log likelihood	-169.12	-170.62	-170.61	-171.08	-173.37	-173.48
Wald chi2	53.96***	51.45***	51.64***	49.87***	47.30***	47.28***

Note: ***p<0.01. **p<0.05. *p<0.10.

Overall, the findings indicate that gender diversity positively affects ESG performance, and that board size has a negative effect on ESG performance. In Models 9 and 12, the member skills variable remains unstable, being positive and negative in different models (coefficients = 0.00***; -0.03***). In all models, firm risk showed a negative and significant effect. This may indicate that companies with higher risk may do more ESG activities in order to create more external financing advantages and operational advantages.

Besides that, industry and democracy continue to be two important drivers for companies to have superior ESG. The results confirm that in more democratic contexts, companies that have more women and fewer board members tend to have higher ESG performance.

4.3 Fuzzy set qualitative comparative analysis: asymmetric approach

In addition to the symmetric analysis, we conducted an asymmetric analysis to verify the effects of explanatory variables on ESG performance using the fsQCA method. This analysis only includes necessary and sufficient conditions, presenting nine paths that lead to greater ESG performance. In all possible paths, the consistency was greater than 0.65, presenting an acceptable value. Solution coverage indicates how much of the outcome is covered by all configurations, and it is important to be above 0.80 (Ragin, 1987). Table VII presents the causal paths, which indicate the sufficient configurations and the core and contributing causal conditions.

Table VII. Configurational paths to ESG performance

Condition	Path1	Path2	Path3	Path4	Path5	Path6	Path7	Path8	Path9
BGENDER		○		○	○	●		●	○
BSIZE	○	○	○	○	○	○	○	○	○
BSKILLS	○	○	○	○		○	○		
ROA	●	●	●	●	●	●	●	●	●
FIRMSIZE	○	○	○	○	○	○	○	○	○
LEVERAGE			○	○			○	○	○
FRISK	●	●			●		●	●	○
MKTCAP	●		●		●	●		●	●
INDUSTRY					●	●	●	○	○
DEMOC	○	●	○	○	○	○	○	○	●
Raw coverage	0.700	0.724	0.582	0.583	0.534	0.052	0.495	0.023	0.207
Unique coverage	0.003	0.003	0.003	0.009	0.006	0.004	0.003	0.002	0.144
Consistency	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.837
Solution coverage	0.855								
Solution consistency	1.000								

Note: Black circles '●' indicate the presence of causal conditions, white circles '○' indicate the absence of causal conditions. The blank cells represent 'don't care' conditions.

In most paths, gender diversity appears as a driver of superior ESG performance, with paths 6 and 8 being core causal conditions. The size of the board presents an absence of causal condition, that is, its importance for ESG performance is secondary. Likewise, the variable skills of board members has secondary importance for ESG and, in some paths, this variable does not matter for superior ESG. Democracy matters in all paths to superior ESG, being its core (paths 2 and 9) or secondary (paths 1, 3, 4, 5, 6, 7 and 8) importance depending on the path the company will follow.

Additionally, Table VII reveals that ROA is a central condition for companies to engage more in ESG activities in Africa. In every possible path, this variable is the causal condition of superior ESG. Company size also appears to be an important secondary factor for ESG performance. This complements the results of the multivariate analysis, which identified that companies with greater financial performance tend to have more ESG practices. The other variables vary in importance according to the path followed by the companies.

5 DISCUSSION AND IMPLICATIONS

Our analysis was based on Institutional Theory under the assumption that in more democratic countries the board structure plays an important role in ESG performance. The findings allow us to confirm Hypothesis I, Hypothesis II and Hypothesis IV. For hypothesis III, the results found are mixed.

The results allow us to conclude that greater gender diversity improves the ESG performance of African companies, confirming Hypothesis 1. From this perspective, even the small number of women on the boards of companies in Africa makes a difference in ESG performance. This corroborates the empirical results of Pareek et al. (2023), who found in their study of Indian companies that gender diversity has a positive relationship with ESG disclosure. The study by Girardone et al. (2021) showed that gender diversity is an important factor in the

social dimension of the ESG score, providing evidence that women tend to be averse to high risk and are more concerned about others than men (Yahya, 2023).

According to Birindelli et al. (2018), empirical studies that analyze ESG performance related to the size of the board of directors have two categories: the first is directed to a stream of research that defends a smaller board and the second presents empirical evidence in favor of a larger board. Our study confirmed Hypothesis 2 by showing that smaller boards are more efficient for ESG performance.

In this vein, our findings show that in Africa, smaller boards can reach faster decisions and thus reduce meeting times. With this evidence, our study suggests that having more members on the board is not always positive for environmental and social discussions. This is in line with the study by Nguyen et al. (2021), which found mixed results for the association between ESG and board size of Asian companies.

Our Hypothesis 3 could not be confirmed, as it indicates an inconclusive result, since at first the member competence variable was significant with a negative sign and at another point in the analysis it demonstrated an insignificant result. Therefore, our finding contradicts the findings of Tarus et al. (2023), who found that the experience of board members matters for the disclosure of human rights by companies in Kenya. In line with the arguments of Cambrea et al. (2024), our results also indicate that the combination of the experience of "older" directors and the knowledge of "younger" directors can contribute to superior ESG.

We partially confirm Hypothesis 4, by revealing that in countries with a level of democracy, the board structure has a greater contribution to ESG performance. In this vein, in more democratic institutional environments, it is expected that the female presence and a smaller board are antecedents of ESG performance. As highlighted by Mooneeapen et al. (2022), in more democratic countries, the government responds more quickly to the environmental and social demands of stakeholders, and thus demands a more accurate response from organizations in combating climate change.

Therefore, our findings show that not only internal factors, such as the board structure, shape companies' ESG performance in Africa, but also external or institutional factors, such as the level of democracy in the country in which it operates. From this perspective, organizations through ESG performance try to adapt their environmental strategies to meet the demands of stakeholders and the normative forces of institutional environments (Lewellyn & Muller-Kahle, 2024).

5.1 Theoretical and practical implications

The findings of this research make it possible to confirm the assumption of Institutional Theory, which states that companies are influenced by the national context. In this vein, companies must be understood in a politically situated way. This means that institutional aspects matter for determining environmental policies and strategies by companies. In emerging contexts, such as Africa, companies suffer from high levels of corruption, weak governance and low levels of democracy. However, organizations can replace this institutional instability with ESG practices in order to increase confidence in their performance in the market, which can promote increased investments.

The level of democracy in a country is fundamental for good corporate performance, as it allows the interests of different parties to be aligned in the organization's operations. The study by Guidolin and La Ferrara (2007) confirms this by showing that company shares dropped during and after the civil war in Angola.

In addition to the theoretical implications, the findings have important practical implications. Companies should reconsider the formation of their board structure, as the characteristics of their directors can be fundamental in influencing decisions about investments

in ESG practices. In Africa, although there are no specific laws for gender diversity on boards of directors, companies that wish to have superior ESG must value the presence of women, in addition to reducing the number of directors.

When developing ESG practices, companies need to align the interests of their investors with the interests of society. From this perspective, the structure of boards needs to be examined so that the interests of a voiceless society are represented by directors. Furthermore, companies must be aware that ESG disclosure is important, but not sufficient. An efficient corporate contribution requires deeper and more detailed reports that show concrete actions, and this requires appropriate metrics to evaluate impacts and allow comparison with other companies in the same industry.

In terms of government implications, to promote better ESG performance, governments must strengthen the level of external supervision for this type of disclosure, reducing greenwashing. The lack of democracy can lead companies to be less transparent, as organizations reflect their governments. Therefore, African governments must guarantee a voice for their citizens so that public and private interests are closer. Furthermore, governments can draft clearer environmental legislation and punish organizations that do not act according to the rules of the game.

6 CONCLUSIONS

This paper explores the moderating role of democracy in the relationship between board structure and the ESG performance of African companies. We find that gender diversity and smaller boards drive better ESG performance. Our findings also indicate that democracy moderates the relationship between board structure and ESG performance. Therefore, in African countries that have more social participation, rights, inclusion and equity, companies tend to have a higher ESG. In this vein, by giving citizens a voice, African governments are indirectly promoting ESG performance.

Our findings also allow us to conclude that financial performance helps companies to have better ESG performance. Companies with more financial resources are generally larger and suffer greater institutional pressure to act in environmental and social activities. The results also show that the industry in which the company operates is a driver of ESG performance. ESG activities carried out by sensitive industries can be valued by stakeholders. Although this type of disclosure is not mandatory in Africa, these industries can lead the movement to encourage the disclosure of ESG information in corporate reports by different industries.

Our results have important theoretical and practical implications, as evidenced in the discussion section. Despite this, this study has some limitations. We only examine companies with information available in the Refinitiv Eikon database, which significantly reduces the number of companies. We analyzed a particular period (2017-2021), as more recent information was not available.

Since democracy is an important institutional factor in Africa, other studies may use different variables to measure it. As the result of the variable specific skills of board members is not conclusive, we encourage that new studies can better investigate the relationship of this variable with ESG performance. In this study, we investigate ESG performance in an aggregated way, future studies may find different results when examining specific pillars of ESG, such as environmental performance.

REFERENCES

Abdelkader, M. G., Gao, Y., & Elamer, A. A. (2024). Board gender diversity and ESG performance: The mediating role of temporal orientation in South Africa context. *Journal of Cleaner Production*, *440*, 140728.

https://doi.org/10.1016/j.jclepro.2024.140728

Acheampong, A. O., Opoku, E. E. O., & Dzator, J. (2022). Does democracy really improve environmental quality? Empirical contribution to the environmental politics debate. *Energy Economics*, *109*, 105942. https://doi.org/10.1016/j.eneco.2022.105942

Al-Mamun, A., & Seamer, M. (2021). Board of director attributes and CSR engagement in emerging economy firms: Evidence from across Asia. *Emerging Markets Review*, *46*(October 2020), 100749. https://doi.org/10.1016/j.ememar.2020.100749

Alonso-Almeida, M. del M., Rodriguez-Anton, J. M., Bagur-Femenías, L., & Perramon, J. (2021). Institutional entrepreneurship enablers to promote circular economy in the European Union: Impacts on transition towards a more circular economy. *Journal of Cleaner Production*, *281*. https://doi.org/10.1016/j.jclepro.2020.124841

Alshbili, I., & Elamer, A. A. (2020). The influence of institutional context on corporate social responsibility disclosure: a case of a developing country. *Journal of Sustainable Finance and Investment*, *10*(3), 269–293. https://doi.org/10.1080/20430795.2019.1677440

Amoako, G. K., Adam, A. M., Arthur, C. L., & Tackie, G. (2021). Institutional isomorphism, environmental management accounting and environmental accountability: a review. *Environment, Development and Sustainability*, *23*(8), 11201–11216. https://doi.org/10.1007/s10668-020-01140-y

Barros, V., Verga Matos, P., Miranda Sarmento, J., & Rino Vieira, P. (2024). ESG performance and firms' business and geographical diversification: An empirical approach. *Journal of Business Research*, *172*, 114392. https://doi.org/10.1016/j.jbusres.2023.114392

Birindelli, G., Dell'Atti, S., Iannuzzi, A. P., & Savioli, M. (2018). Composition and activity of the board of directors: Impact on ESG performance in the banking system. *Sustainability (Switzerland)*, *10*(12), 1–20. https://doi.org/10.3390/su10124699

Bolourian, S., Alinaghian, L., & Angus, A. (2023). Exploring the role of board-level corporate social responsibility committees in corporate social responsibility performance: A configurational approach. *Journal of Business Research*, *169*, 114280. https://doi.org/10.1016/j.jbusres.2023.114280

Cambrea, D. R., Quarato, F., D'Allura, G. M., & Paolone, F. (2024). Driving ESG performance: CEO succession impact in European listed firms. *Management Decision*. https://doi.org/10.1108/MD-10-2023-2005

DasGupta, R., & Roy, A. (2023). Firm environmental, social, governance and financial performance relationship contradictions: Insights from institutional environment mediation. *Technological Forecasting and Social Change*, *189*, 122341. https://doi.org/10.1016/j.techfore.2023.122341

Daugaard, D., & Ding, A. (2022). Global Drivers for ESG Performance: The Body of Knowledge. *Sustainability*, *14*(4), 2322. https://doi.org/10.3390/su14042322

DiMaggio, P., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism in Organizational Fields. *American Sociological Review*, *48*(2), 147–160.

Erauskin-Tolosa, A., Zubeltzu-Jaka, E., Heras-Saizarbitoria, I., & Boiral, O. (2020). ISO 14001, EMAS and environmental performance: A meta-analysis. *Business Strategy and*

the Environment, *29*(3), 1145–1159. https://doi.org/10.1002/bse.2422

Fernandes, V., Kuzey, C., Uyar, A., & Karaman, A. S. (2023). Board structure policy, board diversity and social sustainability in the logistics and transportation sector. *International Journal of Physical Distribution & Logistics Management*, *53*(1), 62–92. https://doi.org/10.1108/IJPDLM-09-2021-0415

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production*, *150*, 135–147. https://doi.org/10.1016/j.jclepro.2017.02.180

Girardone, C., Kokas, S., & Wood, G. (2021). Diversity and women in finance: Challenges and future perspectives. *Journal of Corporate Finance*, *71*(February), 101906. https://doi.org/10.1016/j.jcorpfin.2021.101906

Githaiga, P. N., & Kosgei, J. K. (2023). Board characteristics and sustainability reporting: a case of listed firms in East Africa. *Corporate Governance: The International Journal of Business in Society*, *23*(1), 3–17. https://doi.org/10.1108/CG-12-2021-0449

Guidolin, M., & La Ferrara, E. (2007). Diamonds Are Forever, Wars Are Not: Is Conflict Bad for Private Firms? *American Economic Review*, *97*(5), 1978–1993. https://doi.org/10.1257/aer.97.5.1978

Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th editio). Cengage Learning.

Inekwe, M., Hashim, F., & Yahya, S. B. (2021). CSR in developing countries – the importance of good governance and economic growth: evidence from Africa. *Social Responsibility Journal*, *17*(2), 226–242. https://doi.org/10.1108/SRJ-10-2019-0336

Jouber, H. (2022). Women leaders and corporate social performance: do critical mass, CEO managerial ability and corporate governance matter? *Management Decision*, *60*(5), 1185–1217. https://doi.org/10.1108/MD-07-2020-0953

Kim, D., Shin, D., Lee, J., & Noh, G. (2024). Sustainability from institutionalism: determinants of Korean companies' ESG performances. *Asian Business & Management*. https://doi.org/10.1057/s41291-024-00271-8

Kılıç, M., & Kuzey, C. (2018). Determinants of forward-looking disclosures in integrated reporting. *Managerial Auditing Journal*, *33*(1), 115–144. https://doi.org/10.1108/MAJ-12-2016-1498

Kuzey, C., Fritz, M. M. C., Uyar, A., & Karaman, A. S. (2022). Board gender diversity, CSR strategy, and eco-friendly initiatives in the transportation and logistics sector. *International Journal of Production Economics*, *247*(January), 108436. https://doi.org/10.1016/j.ijpe.2022.108436

Lewellyn, K., & Muller-Kahle, M. (2024). ESG Leaders or Laggards? A Configurational Analysis of ESG Performance. *Business and Society*, *63*(5), 1149–1202. https://doi.org/10.1177/00076503231182688

Maama, H. (2021). Institutional environment and environmental, social and governance accounting among banks in West Africa. *Meditari Accountancy Research*, *29*(6), 1314–1336. https://doi.org/10.1108/MEDAR-02-2020-0770

Martiny, A., Taglialatela, J., Testa, F., & Iraldo, F. (2024). Determinants of environmental

social and governance (ESG) performance: A systematic literature review. *Journal of Cleaner Production*, *456*, 142213. https://doi.org/10.1016/j.jclepro.2024.142213

Miranda, B., Delgado, C., & Branco, M. C. (2023). Board Characteristics, Social Trust and ESG Performance in the European Banking Sector. *Journal of Risk and Financial Management*, *16*(4). https://doi.org/10.3390/jrfm16040244

Mooneeapen, O., Abhayawansa, S., & Mamode Khan, N. (2022). The influence of the country governance environment on corporate environmental, social and governance (ESG) performance. *Sustainability Accounting, Management and Policy Journal*, *13*(4), 953–985. https://doi.org/10.1108/SAMPJ-07-2021-0298

Nguyen, L.-T., Doan, A. N. P., & Frömmel, M. (2021). Boards of directors and corporate sustainability performance: evidence from the emerging East Asian markets. *International Journal of Disclosure and Governance*, *18*(2), 95–105. https://doi.org/10.1057/s41310-020-00102-0

Pareek, R., Sahu, T. N., & Gupta, A. (2023). Gender diversity and corporate sustainability performance: empirical evidence from India. *Vilakshan - XIMB Journal of Management*, *20*(1), 140–153. https://doi.org/10.1108/xjm-10-2020-0183

Pinheiro, A. B., dos Santos, J. I. A. S., Cherobim, A. P. M. S., & Segatto, A. P. (2024). What drives environmental, social and governance (ESG) performance? The role of institutional quality. *Management of Environmental Quality: An International Journal*, *35*(2), 427–444. https://doi.org/10.1108/MEQ-03-2023-0091

Pozzoli, M., Pagani, A., & Paolone, F. (2022). The impact of audit committee characteristics on ESG performance in the European Union member states: Empirical evidence before and during the COVID-19 pandemic. *Journal of Cleaner Production*, *371*, 133411. https://doi.org/10.1016/j.jclepro.2022.133411

Ragin, C. C. (1987). *The Comparative Method: Moving beyond Qualitative and Quantitative Strategies*. University of CA Press.

Romano, M., Cirillo, A., Favino, C., & Netti, A. (2020). ESG (Environmental, social and governance) performance and board gender diversity: The moderating role of CEO duality. *Sustainability (Switzerland)*, *12*(21), 1–16. https://doi.org/10.3390/su12219298

Sepulveda-Nuñez, M. D. D. C., Fong Reynoso, C., & Llamosas-Rosas, I. (2024). Board of directors effect on environmental, social and governance performance in publicly traded non-financial firms. *Corporate Governance: The International Journal of Business in Society*. https://doi.org/10.1108/CG-09-2023-0409

Shakil, M. H. (2021). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, *72*, 102144. https://doi.org/10.1016/j.resourpol.2021.102144

Singhania, M., & Saini, N. (2023). Institutional framework of ESG disclosures: comparative analysis of developed and developing countries. *Journal of Sustainable Finance and Investment*, *13*(1), 516–559. https://doi.org/10.1080/20430795.2021.1964810

Tarus, D. K., Tuwey, J. K., & Yego, J. K. (2023). Does board chairperson experience matter? Examining the relationship between board attributes and human rights reporting in Kenya. *Corporate Governance (Bingley)*, *23*(2), 323–346. https://doi.org/10.1108/CG-11-2021-0396

Treepongkaruna, S., Kyaw, K., & Jiraporn, P. (2024). ESG controversies and corporate governance: Evidence from board size. *Business Strategy and the Environment*, *November 2023*, 1–15. https://doi.org/10.1002/bse.3697

World Economic Forum report, W. (2019). *The Global Competitiveness Report*.

Yahya, H. (2023). Female leadership and ESG performance of firms: Nordic evidence. *Corporate Governance: The International Journal of Business in Society*. https://doi.org/10.1108/CG-03-2023-0129