TẠP CHÍ KHOA HỌC
TRƯỜNG ĐẠI HỌC QUY NHƠN

Quy mô hội đồng quản trị và thành quả hoạt động: Vai trò trung gian của công bố thông tin ESG

Lê Xuân Quỳnh*, Đỗ Huyền Trang, Nguyễn Vân Trâm, Phạm Thị Lai, Lê Nữ Như Ngọc, Phạm Hồng Thắm

Khoa Kinh tế và Kế toán, Trường Đại học Quy Nhơn, Việt Nam

Ngày nhận bài: 18/04/2025; Ngày sửa bài: 10/09/2025;
Ngày nhận đăng: 15/09/2025; Ngày xuất bản: 28/12/2025

TÓM TẮT

Nghiên cứu này xem xét tác động trung gian của việc công bố thông tin môi trường, xã hội và quản trị (ESG) lên mối quan hệ giữa quản trị công ty và thành quả hoạt động của các công ty niêm yết trên Sở Giao dịch Chứng khoán Thành phố Hồ Chí Minh (HOSE) năm 2022. Lợi nhuận trên tài sản (ROA) là biến đại diện cho thành quả hoạt động; là biến phụ thuộc và quy mô hội đồng quản trị là biến độc lập; công bố thông tin môi trường, xã hội và quản trị (ESG) là biến trung gian. Sử dụng mô hình phương trình cấu trúc (PLS-SEM), chúng tôi thấy rằng quy mô hội đồng quản trị có liên quan tích cực đáng kể đến thành quả hoạt động. Có tác động tích cực đáng kể giữa việc công bố thông tin môi trường, xã hội và quản trị (ESG) và thành quả hoạt động. Cuối cùng, công bố thông tin môi trường, xã hội và quản trị (ESG) đóng vai trò trung gian một phần đến mối quan hệ giữa quy mô hội đồng quản trị và thành quả hoạt động. Tóm lại, đặc điểm của quy mô hội đồng quản trị thúc đẩy các hoạt động công bố thông tin môi trường, xã hội và quản trị (ESG) để đạt được hiệu quả hoạt động cao hơn. Những kết quả này nhấn mạnh tầm quan trọng và giá trị của công bố thông tin môi trường, xã hội và quản trị (ESG) tại Việt Nam.

Từ khóa: *Quy mô hội đồng quản trị, thành quả hoạt động, công bố thông tin môi trường, xã hội và quản trị (ESG).*

**Tác giả liên hệ chính.*
Email: lexuanquynh@qnu.edu.vn

QUY NHON UNIVERSITY
JOURNAL OF SCIENCE

Board size and performance: The mediating of ESG disclosure

Le Xuan Quynh*, Do Huyen Trang, Nguyen Van Tram, Pham Thi Lai, Le Nu Nhu Ngoc, Pham Hong Tham

Faculty of Economics and Accounting, Quy Nhon University, Vietnam

Received: 18/04/2025; Revised: 10/09/2025;
Accepted: 15/09/2025; Published: 28/12/2025

ABSTRACT

This study examines the mediating effect of ESG disclosure on the relationship between board size and performance of firms listed in the Ho Chi Minh City Stock Exchange (HOSE) in 2022. Return on assets (ROA) is a proxy for performance; as the dependent variable and board size is the independent variable; ESG disclosure is the mediating variable. Using structural equation model (PLS-SEM), we found that board size is significantly positively related to performance. There is significant positive impact between ESG disclosure and performance. Finally, ESG disclosure plays a partial mediating role on the relationship between board size and performance. To sum up, board size characteristics promote ESG disclosure activities to establish and reach higher performance. These results denote the importance and value of ESG disclosure in Vietnam.

Keywords: *Board size, performance, ESG disclosure.*

1. INTRODUCTION

The board of directors plays a central role in establishing a firm's strategic orientation and in monitoring managerial actions to ensure alignment with shareholder interests.[1] Positioned at the core of the corporate governance framework, boards exert significant influence over a variety of firm-level outcomes.[2] Consequently, considerable scholarly attention has focused on determining the optimal structure of boards to maximize their effectiveness.[1]

Among board attributes, board size has received particular emphasis. It is frequently incorporated into governance research not only because it represents a highly observable structural feature but also because it directly shapes board dynamics and, in turn, affects strategic decision-making at the firm level.[3]

Although a considerable number of studies have explored the relationship between board size and performance, the empirical findings remain mixed. Some studies document that larger boards are associated with enhanced performance.[4] However, other studies fail to provide evidence supporting this positive association,[5,6] and several studies even report that increases in board size may negatively affect firm performance.[3,7]

Environmental, social, and governance disclosure (ESG disclosure) is an important activity that integrates environmental, social and governance considerations into business

*Corresponding author.
Email: lexuanquynh@qnu.edu.vn

https://doi.org/10.52111/qnjs.2025.19609

strategy.[8] Companies actively disclose ESG information in the belief that ESG disclosure brings financial benefits or improves the company's finance.[9] Jo and Harjoto[10] argue that corporate governance directly affects performance if there is no conflict of interest between managers and shareholders. However, the current conflict of interest may require ESG disclosure to act as a mechanism to resolve conflicts between stakeholders and shareholders.[9] The rapid expansion of the Vietnamese stock market has exacerbated information asymmetry, thereby granting informed investors a decisive advantage and increasing the likelihood of material misstatements in annual reports and financial statements.[11] ESG disclosure is anticipated to alleviate such asymmetry and strengthen investor protection. Moreover, the growing prominence of socially responsible investment over the past decade has elevated the importance of ESG disclosure, which accounts for nearly 50% of the data required for investment decisions. Consequently, ESG disclosure emerges as a critical mechanism for enhancing corporate governance and improving firm performance.

While the relationship between board size, ESG disclosure, and performance has been a major topic since the 1960s, investigations of these relationships have largely focused on the direct relationship between two of the three constructs, namely board size, ESG disclosure, or performance, respectively.[12] Recently, researchers have called for further research on the relationship between board size, ESG disclosure, and performance.[8,13] Despite its intuitive nature, research examining the mediating role of ESG disclosure on the relationship between board size and performance is still scarce.

Therefore, it is of interest to examine whether the impact of board size on performance can be explained by ESG disclosure.

Using a sample of companies listed on the HOSE, we find that board size has a direct and positive effect on performance. Furthermore, board size contributes significantly to creating value by improving ESG disclosure. Our findings reinforce previous arguments that board size enhances performance and increases firm value.

Our research makes significant contributions to the literature in two ways. First, while previous studies have investigated whether board size has a direct effect on performance, this is one of the few studies examining both the direct effect of board size on performance and the indirect effect of board size on performance mediated by ESG disclosure in Vietnam.

Second, in terms of method, an important difference compared to the previous study in Vietnam that we examine the both direct and indirect effect of board size on performance by using PLS-SEM. The strength of PLS-SEM is to eliminate bias effects caused by measurement errors and build a latent structure hierarchy.[14] In summary, we contribute to the literature review by supplementing and extending the studies Nguyet and Chien,[15] Anh and Hoang,[16] Duc and Thuy,[17] and Trang,[18] which only consider the direct effect of board size on performance.

The rest of the article is presented as follows. Part 2 is research overview and research hypothesis. Part 3 is research methods. Section 4 is research results and discussion. Section 5 is conclusion.

2. RESEARCH OVERVIEW AND RESEARCH HYPOTHESIS

2.1. Direct impact of board size on performance

Resource dependence theory suggests that larger board size may be associated with higher performance because larger board size may be better able to form resource linkages from the environment and secure important resources.[19, 20] Pfeffer and Salancik[19] found that board size is associated with better responsiveness to resource dependence and regulatory pressures. The authors argued that the greater the need for effective external linkages is, the larger the board size

should be. Larger board size provides increased expertise, information, and quality advice. Zahra and Pearce[21] suggested that larger board size may improve performance by reducing CEO dominance (CEO). A meta-analysis by Dalton et al.[6] showed that larger board size may improve decision-making efficiency due to information sharing. Pearce and Zahra[22] concluded that board size was positively associated with performance in 119 Fortune 500 firms during 1983-1989. Larger board size could potentially exploit more potential, with members appointed from different sectors, with different expertise and management skills. Similarly, Ciftci et al.[23] and Kanakriyah[24] also agreed that larger board size seemed to bring more positive performance for firms in Turkey and Jodan. Pucheta-Martínez and Gallego-Álvarez[25] used a sample consisting of 10,314 firm-year observations from 34 countries, grouped into six geographic zones: Africa, Asia, Europe, Latin America, North America, and Oceania. The result shows that board size is positively associated with performance.

In Vietnam, Nguyet and Chien[15] and Anh and Hoang[16] found that board size was positively associated with performance of firms listed. Using the instrumental variables two-step generalized method of moments (IV-GMM), Chien and Thuan[26] suggest that board size has a positive influence on performance (ROA and ROE) of from 52 construction and real estate enterprises listed on the Vietnam stock exchange in the period 2006-2020.

However, there are views and evidence that contradict the above argument. Proponents of agency theory (such as Eisenberg et al.[27] and De Andres et al.[5] argue that larger board sizes are less effective in improving firm performance because new ideas and perspectives are less likely to be effective, less likely to be adopted by the board, and the monitoring process is likely to be less effective.[28,29,30] Furthermore, larger board sizes may face problems of greater conflict and lower coordination among members leading to slower decision making and delays in disclosure.[20,31] Fama and Jensen[32] argue that smaller boards are more effective and when boards exceed seven or eight members, they are less likely to be effective. Based on a sample of 879 small and medium-sized companies in Finland from 1992-1994, Eisenberg et al[27] also found a significant negative correlation between board size (ranging from two to nine, with an average of 3.7 members) and return on assets (ROA), and return on sales (ROS). According to the authors, performance declines for boards of three, four, and five members. This is lower than the optimal board size proposed in the previous hypothesis although these hypotheses tend to focus on larger companies. It means that this effect may exist in small firms where there is less separation between ownership and control than in large firms. This result supports the argument that small board size is more effective in improving performance. Hermalin and Weisbach[33] agree that larger board size may make it difficult for members to apply their knowledge and skills effectively. De Andres et al.[5] find a negative relationship between board size and performance in a sample of 450 firms from 10 countries in Western Europe and North America. This result supports the view that large board size reduces performance both in countries where internal governance mechanisms are dominant and in countries where external governance mechanisms are dominant. Mak and Kusnadi[34] provide additional evidence of an inverse relationship between board size and firm performance in Singapore and Malaysia. Based on a sample of 176 firms listed on the Bombay Stock Exchange (India) in 2008 and 2009, Kumar and Singh[7] found a significant negative relationship between board size and performance, and this effect was weaker for firms with smaller board sizes. Recently, a meta-analysis of 346 studies across 110 countries conducted by Ahrens et al.[3] indicates that, at the firm level, the effect of board size varies depending on the type of performance measure, with a stronger negative association observed for market-based performance. Duc and Thuy[17]

https://doi.org/10.52111/qnjs.2025.19609

conducted an in-depth examination of the impact of corporate governance characteristics on the performance of 77 listed firms in Vietnam from 2006 to 2011 using the Feasible Generalized Least Squares (FGLS) method. The findings of indicate that board size has a negative impact on performance. Similarly, Trang[18] also found evidence that board size has a negative impact on return on assets (ROA) and Tobin's Q of 189 listed companies during the period from 2011 to 2014.

After controlling for the determinants of board characteristics, Aljifri and Moustafa[35] also found no significant impact of board size on Tobin's Q for a sample of 51 firms listed on the Abu Dubai Stock Exchange in 2004. This suggests that, in general, UAE firms do Aljifri and Moustafa[35] board members optimally, which may lead to a lack of coordination, communication, and influence on decision making. Al-ahdal et al.[36] used a sample of 53 listed companies in India and 53 listed companies in the Gulf Cooperation Council (GCC) countries for the period from 2009 to 2016. The results showed that board size has an insignificant impact on Return on Equity (ROE) and Tobin's Q. Furthermore, the country dummy results showed that Indian companies are performing better than companies in the Gulf countries in terms of corporate governance practices and performance. Kurnia et al.[37] also found no significant impact of board size on Tobin's Q for a sample of 35 mining companies listed in Indonesia from 2011 to 2020. Recently, Sunny and Hoque[38] found no evidence of a strong relationship between board size and performance for by evaluating a sample of 270 firm-year observations from 2016 to 2021 in Bangladesh's textile industry.

In summary, the empirical evidence suggests that board size can be positively or negatively related or has no effect on performance. Most argue that larger boards are effective in promoting performance because larger board sizes allow for specialized leadership, which can lead to higher performance.[6,21] Boards are composed of people from different fields. The knowledge and wisdom of these board members can be used to make some strategic decisions, and this can boost the performance of the firm. Larger board size also provides greater monitoring capabilities and also enhances the firm's ability to form larger external linkages.[20] Based on all the above arguments, we propose the following hypothesis:

H_1: Board size has a direct and positive impact on performance.

2.2. Indirect impact of board size on performance

Agency theory and stakeholder theory are two dominant perspectives used to explain the relationship between corporate governance and performance.[39] Haniffa and Cooke[40] explain that agency theory suggests that effective corporate governance will improve a firm's ability to address emerging challenges and reduce agency conflicts. In this way, effective corporate governance will enhance legitimacy and improve performance.[10]

Drawing on stakeholder theory, Michelon and Parbonetti[41] argue that board size structure and ESG disclosure are complementary mechanisms for enhancing stakeholder management and improving long-term performance. The authors further note that stakeholder theory provides a link between governance mechanisms and sustainability initiatives to align long-term financial goals. Similarly, Kurnia et al [37] argue that through disclosing valid, accurate, and credible ESG information, the board size structure can reduce information asymmetry between various stakeholders. Thus, agency theory and stakeholder theory complement each other by advocating the alignment of shareholder, stakeholder, and management goals.[42]

Using structural analysis method, Maali et al.[43] investigated the direct and indirect effects between corporate governance, sustainability performance, and ESG disclosure using a sample of 300 UK companies over the period

2005–2017. The authors found that corporate governance has a positive impact on sustainability performance. In addition, the results showed that ESG disclosure fully mediates the relationship between corporate governance and sustainability performance. Greater engagement in sustainability and ESG disclosure will reduce manager and shareholder conflict.

Based on data from the 500 largest family-owned businesses in the US from 2009 to 2018, Xu et al.[9] find that ESG disclosure plays a mediating role in the relationship between corporate governance and performance. This supports the hypothesis that by performing well in ESG disclosure, family firms are more likely to conduct corporate governance to ensure ESG disclosure, thereby improving their future performance. These findings provide insights for all stakeholders, from managers to regulators and policy makers, to improve and sustain performance.

Using the PLS-SEM model, Oanh et al.[44] used PLS-SEM model to investigate how environmental, social, and governance (ESG) disclosure mediate the relationship between board characteristics and performance in Vietnamese listed firms (2018-2023). The study finds that board characteristics negatively affect environmental and social dimensions, with no significant impact on governance dimension, while the social dimension itself adversely influences performance. The results further highlight the mediating role of social practices, thereby extending the ESG literature in Vietnam and offering practical implications for enhancing performance and sustainability.

Recently, using panel data of 35 mining companies listed in Indonesia from 2011 to 2020 Kurnia et al.[37] The results of this study that ESG disclosure mediates the relationship between board size and performance. The results support theory of stewardship, which is very suitable for use in Indonesia when viewed from the geography and culture of Indonesia itself. Indonesia is a country influenced by Eastern culture, where shareholders' interests are prioritized and agents are more devoted to their clients.

Thus, managers should combine corporate governance mechanisms with ESG disclosure to resolve conflicts of interest among stakeholders and bring higher performance to the company.[8] Therefore, ESG disclosure can play an intermediary role in facilitating the relationship between corporate governance and performance.[45]

Based on all the above arguments, we propose the hypothesis:

H_2: Board size has an indirect and positive effect on performance through the mediating variable of ESG disclosure.

3. RESEARCH METHODS

3.1. Research sample

The initial sample was all companies listed on the Ho Chi Minh City Stock Exchange (HOSE) in 2022. We then excluded companies in the finance, banking, stock, insurance sectors and companies with incomplete data. Therefore, the final research sample was 290 companies.

The Structural Equation Modeling (SEM) approach enables researchers to simultaneously model and estimate complex relationships among dependent, independent, and mediating variables. This study employs the Partial Least Squares-Structural Equation Modeling (PLS-SEM) technique for several reasons:

First, PLS-SEM does not require normally distributed data.[14] This is particularly advantageous given that the research sample consists of listed firms, whose data may not follow a normal distribution.

Second, the increasing prevalence of secondary data analysis has shifted the focus of research from confirmatory testing toward prediction and causal modeling, especially in contexts where theoretical foundations are not clearly established or where single-item

https://doi.org/10.52111/qnjs.2025.19609

constructs are observed.[14] Such conditions are well-suited to PLS-SEM.

Thus, this study applies PLS-SEM to examine the impact of board size on performance, with ESG disclosure as a mediating variable.

3.2. Variable measurement

Performance: We prefer to use accounting metrics rather than market-based ones because they more accurately reflect a company's internal operational performance.[46] Return on assets (ROA) is widely used as a proxy for performance.[47,48] In contrast, return on equity (ROE) is extensively applied as a conventional metric to determine the extent to which value is created for shareholders.[47,49] ROA is defined as the total pre-tax accounting profit over total assets.[50]

Board Size (BSIZE): Board size is determined by the number of board members.[50]

Environmental, social, and governance disclosure *(ESG disclosure)*: The ESG disclosure index is determined by content analysis based on GRI guidelines and Circular No. 96 (2020). The ESG disclosure index is collected by extracting information related to environmental (10 items), social (6 items) and governance (3 items) categories from annual reports and/or sustainability reports. The average ESG disclosure score is determined by the following formula.[40]

$$\text{ESG Index}_j = \frac{\Sigma X_{ij}}{n_j}$$

In there:

ESG_j: ESG disclosure index of company j;

X_{ij} : If company j discloses the i-th environmental, social, and governance aspests. Each information index is determined by assigning a range of 0 – 2.[51] 2: If the company discloses quantitative or monetary information; 1: If the company discloses qualitative information; 0: If the company does not disclose any information.

n_j : Number of information indexes for the jth company;

```
Test scale = mean(unstandardized items)

Average interitem covariance:     .0996653
Number of items in the scale:            3
Scale reliability coefficient:      0.7399
```

Figure 1. Reliability test results.

Source: Analysis results from Stata 14

Cronbach's alpha test was used to check the reliability of the collected data. The results showed that the Cronbach's alpha coefficient was 0.7399 (greater than 0.6), proving that the data was reliable.

Control variables: To control for differences in performance that may influence this relationship, the study uses the variables firm size (SIZE) and financial leverage (LEV) as control groups. Firm size (SIZE) is defined as the logarithm of total assets.[52] Financial leverage (LEV) is defined as the ratio of liabilities to total assets.[52]

3.3. Research model

The research model is shown in Figure 2. The first model examines the direct effect of board size on performance. The second model examines the indirect effect of board size on performance through the mediation of ESG disclosure.

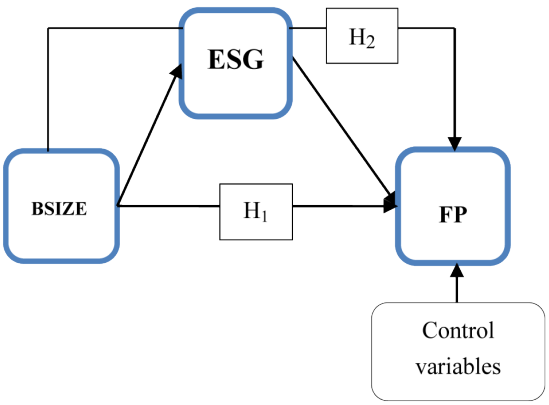

Figure 2. Research model.

Source: Suggested by the authors

The each indicators (E, S, G) for a formative construct captures a specific aspect of the construct's domain (ESG). Thus, this is formative model.

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

Table 1. Descriptive statistics.

Variable	Maximum value	Minimum value	Average value	Standard deviation
ROA	0.536	0.001	0.080	0.091
BSIZE	11.000	3.000	5.786	1.418
E	1.909	0.000	0.440	0.438
S	2.000	0.000	1.016	0.509
G	1.333	0.000	0.191	0.349
SIZE	14.701	11.125	12.384	0.634
LEV	0.905	0.007	0.452	0.205

Source: Analysis results from Smart PLS

Accordingly, the average return on assets (ROA) of the companies in the sample is 0.080, ranging from a minimum of 0.011 to a maximum of 0.536. On average, companies listed on the Vietnamese stock market have 5.786 board members, lower than the maximum of 11 members prescribed by law. This corresponds to the characteristics of Vietnamese listed companies, which are generally small in scale, with a charter capital of merely VND 30 billion (around USD 1.2 million). The level of ESG disclosure is relatively low, similar to Cuong and Khanh[53].The level of ESG disclosure is the highest in the social aspect (S) (average 1.016), followed by the environmental aspect (E) 0.440 and the governance aspect (S) 0.191.

4.2. Evaluation of measurement model

Formative measurement model is evaluated by convergent validity, collinearity between indicators, significane and relevance or outer weights. Because BSIZE, FP indicators are the single variables, we measure significane and relevance of outer weights. According to Table 2, the outer weights loading of variables E, S, G are 0.570, 0.849 and 0.623 respectively. In addition, the bootstrapping results show that these variables are all statistically significant at the 1% level, demonstrating good variable quality.

Table 2. Significance and relevance of outer weights.

	BSIZE	ESG	FP	LEV	SIZE
BSIZE	1				
E		0.570 ***			
S		0.849 ***			
G		0.623 ***			
LEV				1	
ROA			1		
SIZE					1

Source: Analysis results from Smart PLS

4.3. Structural model evaluation

4.3.1. Multicollinearity

The results of the multicollinearity test (Table 3) show that the VIF coefficients of the research variables range from 1.000 to 1.375 (all < 3). Therefore, the research model does not suffer from multicollinearity.

Table 3. VIF coefficient.

	BSIZE	ESG	FP	LEV	SIZE
BSIZE		1	1.205		
ESG			1.044		
FP					
LEV			1.190		
SIZE			1.375		

Source: Analysis results from Smart PLS

4.3.2. Coefficient of determination R^2

The results of the model's predictive ability assessment (Table 4) show that the adjusted R^2 of the direct effect model is 20.3% and that of the indirect effect model is 3.1%. The relatively low R^2 value in the indirect effect model may reflect the nascent stage of ESG disclosure development in Vietnam, where such ESG disclosure are still

emerging[53] and have yet to attract substantial attention from investors.

Table 4. R^2 coefficient.

	R-square	R-square adjusted
ESG	0.034	0.031
FP	0.214	0.203

Source: Analysis results from Smart PLS

4.3.3. Coefficient of determination f^2

The results of the impact coefficient f^2 assessment (Table 5) show that the size of the board size has a weak impact on performance and ESG disclosure (f^2 is 0.024 and 0.087, respectively).

Table 5. Coefficient of determination f^2.

	BSIZE	ESG	FP	LEV	SIZE
BSIZE		0.036	0.024		
ESG			0.087		
FP					
LEV			0.111		
SIZE			0.008		

Source: Analysis results from Smart PLS

4.4. Testing research hypothesis

Figures 2 and 3 show the results of the structural model estimation. The values on the path of the research variable are the outer loadings and the outer weights. The values in the research variable are R^2.

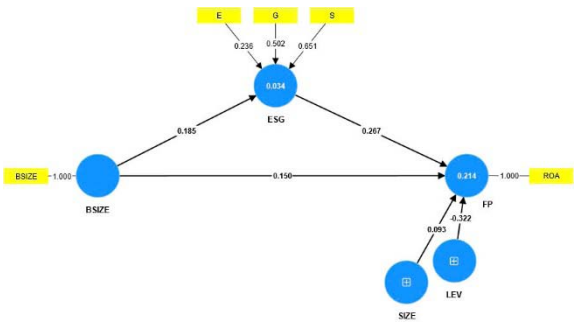

Figure 2. PLS-SEM Algorithm results.

Source: Analysis results from Smart PLS 4

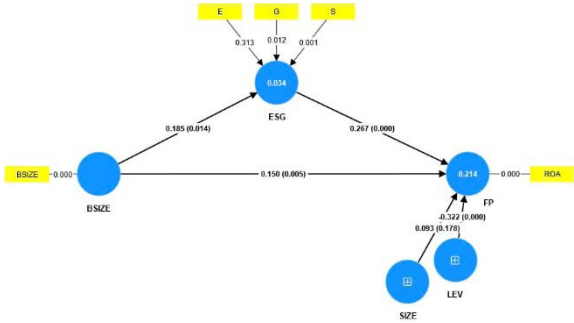

Figure 3. Bootstrap 5,000 results.

Source: Analysis results from Smart PLS 4

Table 6 presents the results of Bootstrap 5,000 testing of the research model.

Table 6. Test results.

	Original sample	Sample mean	Standard deviation	t-value	p-value
Direct relationship					
BSIZE → FP	0.150	0.145	0.053	2.810	0.005
BSIZE → ESG	0.185	0.190	0.075	2.466	0.014
ESG → FP	0.267	0.274	0.060	4.488	0.000
LEV → FP	-0.322	-0.325	0.056	5.703	0.000
SIZE → FP	0.093	0.094	0.069	1.346	0.178
Indirect relationship					
BSIZE → FP	0.050	0.052	0.024	2.035	0.042

Source: Analysis results from Smart PLS 4

Accordingly, board size directly and positively affects performance at the 1% significance level ($\beta = 0.150$, $p < 0.01$, $t = 2.810$) which may indicate the preference of listed companies in HOSE for large-sized boards that are proportional to performance. Thus, hypothesis H_1 is accepted. Similar to previous studies such as Brennan,[54] Pfeffer and Salancik,[19] Dalton et al.,[6] Kumar and Singh,[7] this result reaffirms the role of the board of directors in monitoring and controlling managers to ensure that managers act

in the interests of all shareholders.[55,30] Consistent with resource dependence theory, larger board size can improve the efficiency of the decision-making process due to the sharing of knowledge, skills, and experience.[56,57,19,20] Therefore, the performance will be improved significantly.

Board size directly and positively affects ESG disclosure at 5% significance level ($\beta = 0.185$, $p < 0.05$, $t = 2.466$), similar to Treepongkaruna et al.,[58] Beji et al.,[59] De Villiers et al.,[4] Endrikat et al.[60] According to resource dependence theory, firms will benefit from larger boards. As more directors, each of whom can provide ESG disclosure-related skills, knowledge, and experience, motivate firms to improve their levels of ESG disclosure.[57,4] According to stakeholder theory, a larger and more diverse board creates more opportunities to develop stakeholder connections by incorporating social, environmental, and governance goals beyond purely financial goals.[61]

ESG disclosure has a direct and positive impact on performance at the 1% significance level ($\beta = 0.267$, $p < 0.01$, $t = 4.488$), similar to Loh et al.,[62] Maji and Lohia,[63] Bich et al.[64] From the perspective of stakeholder theory, ESG disclosure provides complete and clear information, reduces information asymmetry, and reduces agency costs leading to increased performance.

Board size indirectly and positively affects performance through the mediator variable of ESG disclosure at the 5% significance level ($\beta = 0.050$, $p < 0.05$, $t = 2.035$), thus, hypothesis H_2 is accepted. An effective board size will facilitate ESG disclosure to maintain and increase performance, ensuring that companies become more socially responsible.[10] This suggests that stronger performance can be achieved through higher levels of ESG disclosure, with ESG acting as a mediator between board size and performance. This can be interpreted as companies with larger board sizes may lead to better ESG disclosure and monitoring practices to ensure that corporate promises to external stakeholders are fulfilled, supporting claims of corporate legitimacy and improving ESG disclosure. Improved levels of ESG disclosure will generate positive signals about corporate reputation, creating a trustworthy atmosphere for business development and thus improving performance.[8,45]

5. CONCLUSION

This study examines the mediating effect of ESG disclosure on the relationship between board size, ESG disclosure, and performance. The empirical results show that ESG disclosure plays a partial mediating role in the relationship between board size and performance.

Our study extends the existing literature on the relationships between board size and performance, ESG disclosure and performance, and board size and ESG disclosure by investigating the three-way relationships among all three and identifying the mediating role of ESG disclosure between board size and performance.

This study provides practical implications for managers, investors, policymakers, and regulators. For business owners, this study demonstrates the importance of board size in enhancing ESG disclosure to improve long-term performance. For investors, the study provides valuable insights into how to increase investment efficiency and avoid over- or under-investment by highlighting the mediating effects of ESG disclosure. For policymakers and regulators, the study suggests that companies with higher ESG disclosure levels may have better performance. Therefore, there is a need for viable ESG disclosure policies and regulations to assess actual ESG disclosure to close the legitimacy gap.

This study has some limitations. First, the results of this study are based on companies listed on HOSE. Second, we did not consider all the characteristics of corporate governance and performance was not considered according

https://doi.org/10.52111/qnjs.2025.19609

to market measures. Finally, we studied for a one year, so we did not have a basis to assess the direction of the impact over time. Since the ESG index indicators were manually collected, the data collection process was highly time-intensive. Consequently, ESG disclosure was limited to a single year of observation. All these limitations can be the subject of future studies on the role of corporate governance in emerging markets.

Acknowledgement

This research is conducted within the framework of science and technology projects at institutional level of Quy Nhon University under the project code T2024.873.44.

REFERENCES

1. J. L. Johnson, C. M. Daily, A. E. Ellstrand. Boards of directors: a review and research agenda, *Journal of Management*, **1996**, *22*(3), 409-438.
2. R. B. Adams, B. E. Hermalin, M. S. Weisbach. The role of boards of directors in corporate governance: a conceptual framework and survey, *Journal of Economic Literature*, **2010**, *48*(1), 58-107.
3. F. K. Ahrens, D. B. Veltrop, L. B. Mulder, F. Rink. Board size in context: a meta-analysis on the relationship between board size and firm performance, *Corporate Governance: An International Review*, **2025**, 1-20.
4. C. D. Villiers, V. Naiker, C. J. V. Staden. The effect of board characteristics on firm environmental performance, *Journal of Management*, **2011**, *37*(6), 1636-1663.
5. P. D. Andres, V. Azofra, F. Lopez. Corporate boards in OECD countries: size, composition, functioning and effectiveness, *Corporate Governance: An International Review*, **2005**, *13*(2), 197-210.
6. D. R. Dalton, C. M. Daily, S. T. Certo, R. Roengpitya. Meta-analyses of financial performance and equity: fusion or confusion?, *Academy of Management Journal*, **2003**, *46*(1), 13-26.
7. N. Kumar, J. P. Singh. Effect of board size and promoter ownership on firm value: some empirical findings from India, *Corporate Governance: The International Journal of Business in Society*, **2013**, *13*(1), 88-98.
8. H. Jo, M. A. Harjoto. Corporate governance and firm value: the impact of corporate social responsibility, *Journal of Business Ethics*, **2011**, *103*(3), 351-383.
9. E. G. Xu, C. Graves, Y. G. Shan, J. W. Yang. The mediating role of corporate social responsibility in corporate governance and firm performance, *Journal of Cleaner Production*, **2022**, *375*, 134165.
10. H. Jo, M. A. Harjoto. The causal effect of corporate governance on corporate social responsibility, *Journal of Business Ethics*, **2012**, *106*(1), 53-72.
11. N. X. Hung, T. H. Thien. Corporate social responsibility and the non-linear effect on audit opinion for energy firms in Vietnam, *Cogent Business & Management*, **2020**, *7*(1), 1757841.
12. R. Zaman, T. Jain, G. Samara, D. Jamali. Corporate governance meets corporate social responsibility: mapping the interface, *Business & Society*, **2022**, *61*(3), 690-752.
13. D. Jamali, A. M. Safieddine, M. Rabbath. Corporate governance and corporate social responsibility synergies and interrelationships, *Corporate Governance: An International Review*, **2008**, *16*(5), 443-459.
14. F. Hair, G. T. M. Hult, C. M. Ringle, M. Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*, SAGE Publications, USA, 2022.
15. N. T. A. Nguyet, N. V. Chien. Factors affecting corporate financial performance listed on Vietnam stock market, *Cogent Business & Management*, **2025**, *12*(1), 2464937.
16. P. T. Anh, D. L. Hoang. The effects of corporate governance mechanisms on firm performance: Empirical evidence from Vietnam, *The Journal*

of Asian Finance, Economics and Business, **2021**, *8*(4), 369-379.

17. V. Duc, P. Thuy. Corporate governance and firm performance: Empirical evidence from Vietnam, *Journal of Economic Development*, **2013**, *7*(1), 62-78.
18. P. T. K. Trang. Research on the relationship between corporate governance and firm performance: empirical evidence from companies listed on the stock exchange in Vietnam, *International Journal of Management and Applied Research*, **2016**, *3*(4), 172-183.
19. J. Pfeffer, G. Salancik. *The external control of organizations: a resource dependence perspective*, Stanford University Press, Stanford, 2003.
20. J. Goodstein, K. Gautam, W. Boeker. The effects of board size and diversity on strategic change, *Strategic Management Journal*, **1994**, *15*(3), 241-250.
21. S. A. Zahra, J. A. Pearce. Boards of directors and corporate financial performance: a review and integrative model, *Journal of Management*, **1989**, *15*(2), 291-334.
22. J. A. Pearce, S. A. Zahra. Board composition from a strategic contingency perspective, *Journal of Management Studies*, **1992**, *29*(4), 411-438.
23. I. Ciftci, E. Tatoglu, G. Wood, M. Demirbag, S. Zaim. Corporate governance and firm performance in emerging markets: evidence from Turkey, *International Business Review*, **2019**, *28*(1), 90-103.
24. R. Kanakriyah. The impact of board of directors' characteristics on firm performance: a case study in Jordan, *The Journal of Asian Finance, Economics and Business*, **2021**, *8*(3), 341-350.
25. M. C. P. Martínez, I. G. Álvarez. Do board characteristics drive firm performance? An international perspective, *Review of Managerial Science*, **2020**, *14*(6), 1251-1297.
26. N. V. Chien, H. T. N. Thuan. Characteristics of the board of directors and corporate financial performance – empirical evidence, *Economies*, **2023**, *11*(2), 53.
27. T. Eisenberg, S. Sundgren, M. T. Wells. Larger board size and decreasing firm value in small firms, *Journal of Financial Economics*, **1998**, *48*(1), 35-54.
28. M. C. Jensen. The modern industrial revolution, exit, and the failure of internal control systems, *The Journal of Finance*, **1993**, *48*(3), 831-880.
29. K. Ahmed, M. Hossain, M. B. Adams. The effects of board composition and board size on the informativeness of annual accounting earnings, *Corporate Governance: An International Review*, **2006**, *14*(5), 418-431.
30. D. R. Dalton, C. M. Daily, J. L. Johnson, A. E. Ellstrand. Number of directors and financial performance: a meta-analysis, *Academy of Management Journal*, **1999**, *42*(6), 674-686.
31. C. R. Evans, K. L. Dion. Group cohesion and performance: a meta-analysis, *Small Group Research*, **1991**, *22*(2), 175-186.
32. E. F. Fama, M. C. Jensen. Separation of ownership and control, *The Journal of Law and Economics*, **1983**, *26*(2), 301-325.
33. B. Hermalin, M. S. Weisbach. Boards of directors as an endogenously determined institution: a survey of the economic literature, *FRBNY Economic Policy Review*, **2003**, 7-26.
34. Y. T. Mak, Y. Kusnadi. Size really matters: further evidence on the negative relationship between board size and firm value, *Pacific-Basin Finance Journal*, **2005**, *13*(3), 301-318.
35. K. Aljifri, M. Moustafa. The impact of corporate governance mechanisms on the performance of UAE firms: an empirical analysis, *Journal of Economic and Administrative Sciences*, **2007**, *23*(2), 71-93.
36. W. M. Al-ahdal, M. H. Alsamhi, M. I. Tabash, N. H. S. Farhan. The impact of corporate governance on financial performance of Indian and GCC listed firms: an empirical investigation, *Research in International Business and Finance*, **2020**, *51*, 101083.
37. P. Kurnia, D. Agustia, N. Soewarno, A. Ardianto. The mediating role of carbon emission disclosure in the relationship between structure of corporate governance and firm performance, *Journal of Applied Accounting Research*, **2025**.

https://doi.org/10.52111/qnjs.2025.19609

38. S. A. Sunny, M. Hoque. The impact of board characteristics on financial performance in an emerging economy: the moderating role of nomination and remuneration committee, *European Journal of Management and Business Economics*, **2025**, 1-19.

39. G. Aras, D. Crowther. Governance and sustainability: an investigation into the relationship between corporate governance and corporate sustainability, *Management Decision*, **2008**, *46*(3), 433-448.

40. R. M. Haniffa, T. E. Cooke. Culture, corporate governance and disclosure in Malaysian corporations, *Abacus*, **2002**, *38*(3), 317-349.

41. G. Michelon, A. Parbonetti. The effect of corporate governance on sustainability disclosure, *Journal of Management & Governance*, **2012**, *16*, 477-509.

42. N. Hussain, U. Rigoni, R. P. Orij. Corporate governance and sustainability performance: analysis of triple bottom line performance, *Journal of Business Ethics*, **2018**, *149*, 411-432.

43. K. Maali, R. Rakia, M. Khaireddine. How corporate social responsibility mediates the relationship between corporate governance and sustainability performance in UK: a multiple mediator analysis, *Society and Business Review*, **2021**, *16*(2), 201-217.

44. T. T. M. Oanh, D. V. L. Tuong, H. H. Le, L. H. Nga, N. T. P. Mai. The mediating role of ESG practices in the relationship between board characteristics and firm performance: An empirical study at Vietnamese listed enterprises, *Journal of Sustainable Finance & Investment*, **2024**, *14*(2), 345-367.

45. Y. Fassin, A. Van Rossem. Corporate governance in the debate on CSR and ethics: sensemaking of social issues in management by authorities and CEOs, *Corporate Governance: An International Review*, **2009**, *17*(5), 573-593.

46. Y. Liu, M. K. Miletkov, Z. Wei, T. Yang. Board independence and firm performance in China, *Journal of Corporate Finance*, **2015**, *30*, 223-244.

47. P. J. Richard, T. M. Devinney, G. S. Yip, G. Johnson. Measuring organizational performance: Towards methodological best practice, *Journal of Management*, **2009**, *35*(3), 718-804.

48. P. Rose. The corporate governance industry, *Journal of Corporation Law*, **2006**, *32*, 887.

49. J. D. Wet, E. Du Toit. Return on equity: a popular, but flawed measure of corporate financial performance, *South African Journal of Business Management*, **2007**, *38*(1), 59-69.

50. J. E. Core, W. R. Guay, T. O. Rusticus. Does weak governance cause weak stock returns? An examination of firm operating performance and investors' expectations, *The Journal of Finance*, **2006**, *61*(2), 655-687.

51. D. Cormier, M. Magnan. The revisited contribution of environmental reporting to investors' valuation of a firm's earnings: an international perspective, *Ecological Economics*, **2007**, *62*(3), 613-626.

52. R. Ameer, F. Ramli, H. Zakaria. A new perspective on board composition and firm performance in an emerging market, *Corporate Governance: The International Journal of Business in Society*, **2010**, *10*(5), 647-661.

53. N. H. Cuong, D. H. Khanh. The impact of sustainability reporting on firm value, financial performance, and risk: an empirical study of Vietnam's listed companies, *Journal of Management & Governance*, **2025**, 1-44.

54. N. Brennan. Boards of directors and firm performance: is there an expectations gap?, *Corporate Governance: An International Review*, **2006**, *14*(6), 577-593.

55. M. C. Jensen, W. H. Meckling. Theory of the firm: managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, **1976**, *3*(4), 305-360.

56. K. M. Lehn, S. Patro, M. Zhao. Determinants of the size and composition of US corporate boards: 1935-2000, *Financial Management*, **2009**, *38*(4), 747-780.

57. A. J. Hillman, M. C. Withers, B. J. Collins. Resource dependence theory: a review, *Journal of Management*, **2009**, *35*(6), 1404-1427.

58. S. Treepongkaruna, K. Kyaw, P. Jiraporn. ESG controversies and corporate governance: evidence from board size, *Business Strategy and the Environment*, **2024**, *33*(5), 4218-4232.

59. R. Beji, O. Yousfi, N. Loukil, A. Omri. Board diversity and corporate social responsibility: empirical evidence from France, *Journal of Business Ethics*, **2021**, *173*, 133-155.

60. J. Endrikat, C. D. Villiers, T. W. Guenther, E. M. Guenther. Board characteristics and corporate social responsibility: a meta-analytic investigation, *Business & Society*, **2021**, *60*(8), 2099-2135.

61. A. Hillman, G. D. Keim. Shareholder value, stakeholder management, and social issues: what's the bottom line?, *Strategic Management Journal*, **2001**, *22*, 125-139.

62. L. Loh, T. Thomas, Y. Wang. Sustainability reporting and firm value: evidence from Singapore-listed companies, *Sustainability*, **2017**, *9*(11), 2112.

63. S. G. Maji, P. Lohia. Environmental, social and governance (ESG) performance and firm performance in India, *Society and Business Review*, **2023**, *18*(1), 175-194.

64. N. T. N. Bich, T. T. T. Hai, L. H. Oanh, N. T. Phuoc, T. H. Thien, L. Viet. Association between corporate social responsibility disclosures and firm value – empirical evidence from Vietnam, *International Journal of Accounting and Financial Reporting*, **2015**, *5*(1), 212-228.