



# Linking Corporate Governance Mechanisms to Firm Performance: Evidence from Vietnam

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## ABSTRACT

Corporate governance plays a crucial role in enhancing firm performance by improving oversight and decision-making processes. This study examines the impact of corporate governance on financial performance with a control of earnings quality. Corporate governance includes ten proxies reflecting characteristics of board of director (DoB), supervisory board, and risk management mechanism, while firm performance is measured by ROE. The study applies panel data analysis with a sample of 1,260 observations from non-financial listed companies in Vietnam from 2018 to 2023. The results indicate that BoD size positively affects ROE, while BoD duality and BoD meeting frequency have negative impacts. SB meeting frequency enhances financial performance, whereas supervisory board size and gender diversity exhibit negative effects on ROE. Outsourced internal audits significantly improve ROE, while the use of Big4 audit services does not show a statistically significant impact. Notably, earnings quality has a significantly positive influence on ROE, highlighting the importance of transparent financial reporting in enhancing financial performance. These findings provide empirical insights for policymakers and businesses to optimize governance structures. The study contributes to the corporate governance literature by offering evidence from an emerging market, emphasizing the role of boards and risk management mechanisms in enhancing financial performance.

**Keywords:** BoD Characteristic, Corporate Governance, Earnings Quality, Firm Performance, Risk Management Mechanism, Supervisory Board  
**JEL Classifications:** G30, G32, M48

## 1. INTRODUCTION

Corporate governance and earnings quality play a crucial role in the performance of publicly listed firms in global stock markets. The evaluation of a firm should not be based solely on its financial performance but should also take into account its governance practices and earnings quality to ensure sustainable growth and development. In Vietnam's stock market, there is a growing interest in corporate governance and earnings quality, especially in the context of increasing market openness and international integration (Nguyen et al., 2022). Effective corporate governance enhances transparency, accountability, and fairness in decision-making and managerial actions, thereby reducing risks and preventing fraudulent activities (Al-Hiyari et al., 2024).

Existing research on corporate governance, earnings quality, and business performance has been widely conducted worldwide and can be categorized into three main directions. First, studies have explored the specific characteristics of corporate governance that influence firm performance (Judge et al., 2003; Maher and Andersson, 1999; Mashayekhi and Bazaz, 2008; Phan and Duong, 2021; Vander Bauwhede, 2009). Second, research has examined how individual factors of earnings quality impact business performance (Boachie and Mensah, 2022). Third, studies have investigated the effects of corporate governance attributes on earnings quality (Al-Hiyari et al., 2024; Dang et al., 2020; Gulzar, 2011). However, there is limited comprehensive research focusing on the relationship between corporate governance and

business performance, particularly considering earnings quality as a control variable for the board's efficiency.

The role of corporate governance structure in enhancing firm performance is a concerning research question. This study aims to analyze and assess the impacts of corporate governance on the business performance of publicly listed companies in Vietnam within the context of an emerging financial market. This study uses earnings quality as a control variable in the relationship between corporate governance and financial performance due to the role of the board of directors (BoD) and supervisor board (SB) in guaranteeing the quality of earnings. By doing so, it seeks to consolidate and extend the findings of previous studies. The subsequent sections of this paper will present the conceptual framework, indicating the key concepts and a literature review of hypotheses development. Following this, the research methodology will be outlined, followed by the presentation of results and discussion. The conclusion section will summarize the key research outcomes.

## 2. CONCEPTUAL FRAMEWORK

### 2.1. Financial Performance

Firm performance is a multidimensional concept that encompasses both financial and non-financial aspects of a company and is typically measured using a range of indicators and evaluation methods. Financial performance can be assessed through key financial metrics such as return on assets (ROA), return on equity (ROE), Tobin's Q, earnings per share (EPS), net profit margin, and so on, while non-financial performance includes non-financial metrics like market position, brand reputation, product and service quality, and customer and employee satisfaction (Lee et al., 2006; Ozgulbas et al., 2006). Financial performance refers to a company's ability to effectively utilize its assets to generate revenue and sustain growth from its core business activities (Nnamani et al., 2017). It serves as a key indicator of a firm's overall economic health and managerial efficiency, providing information users with insights into its stability and profitability (Kenton, 2024). Financial performance is assessed using quantifiable metrics, which are derived from financial statements, including the balance sheet, income statement, and cash flow statement.

### 2.2. Corporate Governance

Corporate governance is a broad concept encompassing various dimensions, with definitions spanning both narrow and broad perspectives (OECD, 2023). According to Tricker (2015), corporate governance includes internal control mechanisms, such as rules and review procedures, as well as managerial behaviors and leadership styles. It shapes how decisions are made and implemented within an organization, from high-level strategic planning to daily operational processes. In Vietnam, corporate governance is undergoing significant improvement. Legal frameworks such as the Vietnamese Enterprise Law and the Securities Law establish the regulatory foundation to enhance compliance and governance capacity, ultimately fostering greater competitiveness and sustainability in the market. The objectives of corporate governance go beyond enhancing firm performance; they also provide a foundation for risk management, strengthen

transparency, and promote fairness and accountability in corporate decision-making (Al-Hiyari et al., 2024).

Board composition refers to the structure and characteristics of a board of directors (BoD) and supervisory board (SB) (Muchemwa et al., 2016). BoD and SB are two agency entities responsible for corporate governance practice. BoD and SB play a central role in ensuring accountability and the protection of shareholders' interests in public companies. BoD is a fundamental component of corporate governance, responsible for setting strategic direction, overseeing management, and ensuring that the company operates in the best interests of shareholders (OECD, 2023). An effective board enhances decision-making processes and mitigates agency problems by aligning managerial actions with shareholder value (Fama and Jensen, 1983; Naciti, 2019). Meanwhile, SB functions as an independent oversight body, monitoring the BoD and executive management. It ensures compliance with regulations, internal controls, and ethical standards (Jensen and Meckling, 1976). In countries with a two-tier board system, such as Germany and Vietnam, the supervisory board plays a key role in reducing conflicts of interest and enhancing transparency (Adams and Ferreira, 2007).

Furthermore, a risk management mechanism is a fundamental component of corporate governance, designed to mitigate potential risks that may impact a company's operations and financial stability. Effective corporate governance ensures that risk management frameworks are in place, promoting compliance with regulatory standards (OECD, 2023). By implementing strong internal controls and oversight structures, corporate governance helps safeguard shareholder interests and enhances long-term business sustainability (Jensen and Meckling, 1976).

### 2.3. Earnings Quality

Earnings quality refers to a company's ability to generate stable and sustainable profits over time through the efficient utilization of resources and effective risk management (Aguguom and Salawu, 2019). Earnings quality plays a crucial role in shaping the perceptions of executives, investors, and managers regarding a firm's financial performance (Dechow and Schrand, 2004). Firms with robust governance structures are less likely to engage in earnings manipulation, leading to more reliable financial disclosures and increased investor trust (Al-Hiyari et al., 2024). However, in Vietnam, several challenges related to earnings quality have been postulated. Tran and Duong (2020) highlighted an increase in earnings management practices among publicly listed firms, indicating signs of non-transparency and inconsistencies in financial reporting. Duarte et al. (2024) indicate that managers should prioritize the quality of reported earnings, as it plays a crucial role in enhancing a firm's financial performance, particularly in terms of accruals quality.

### 2.4. Basic Theory and Hypotheses Development

Agency theory which was developed by Jensen and Meckling (1976) describes the dynamics between a principal, typically shareholders, and an agent, manager or executives, who act on their behalf. Agency theory asserts that the agent and principal often have conflicting interests, which can lead to disputes that disrupt

the firm's operation. This delegation of decision-making inherently creates the potential for conflicts of interest. While shareholders seek to maximize their wealth, managers may be driven by personal objectives or alternative incentives. As a result, this misalignment gives rise to what agency theorists refer to as agency costs, which include monitoring expenses and the consequences of opportunistic behavior. In the context of corporate governance, agency theory helps explain how governance decisions and earnings quality influence the performance of publicly listed firms in Vietnam's stock market. Executive decisions, such as investment policies and business development plans, often reflect agency relationships and conflicts of interest among corporate stakeholders. Specifically, agency theory is commonly used to analyze governance mechanisms on corporate performance.

#### *2.4.1. BoD characteristics and financial performance*

The structure and characteristics of a company's BoD play a crucial role in shaping corporate governance and influencing firm performance (Muchemwa et al., 2016). The BoD characteristics influence governance quality and firm performance (Hermalin and Weisbach, 2003). Prior research suggests that well-structured boards enhance corporate performance by improving decision-making, reducing agency conflicts, and ensuring effective managerial oversight (Dalton et al., 1999; Fama and Jensen, 1983). There are several proxies of BoD characteristics in preceding research, such as BoD size, BoD Independence, BoD duality, BoD meeting, and BoD diversity (Bich and Uyen, 2019; Dang et al., 2020).

Board size plays a crucial role in determining the effectiveness of corporate governance. Some studies argue that larger boards bring diverse expertise, facilitating better strategic decision-making and improving firm performance (Al-Othman and Al-Zoubi, 2019; Hoa et al., 2024). However, other research suggests that excessively large boards may lead to communication inefficiencies and slow decision-making, which can negatively affect performance (Ahmed et al., 2006). In Vietnam, the law of enterprises regulated a BoD size is in a range of 3-11 members (National Assembly, 2020). In the Vietnamese market, board size is often correlated with firm size, as larger companies tend to have more board members. This study posits the following hypothesis:

Hypothesis H<sub>1</sub>: Board size positively affects firm performance.

An independent director provides unbiased oversight, reduces managerial discretion and mitigates agency problems, which can enhance firm performance (Beasley, 1996). Prior research indicates that BoD independence improves firm performance by reducing earnings management (Peasnell et al., 2006) and fostering better corporate decisions (Ahmed and Duellman, 2007; Ongore and K'obonyo, 2011). Independent directors play a crucial role in monitoring executives, particularly in emerging markets where ownership concentration is high (Judge et al., 2003). Hence, greater BoD independence is expected to enhance firm performance.

Hypothesis H<sub>2</sub>: BoD independence positively affects firm performance.

BoD duality, where the CEO also serves as the board chairman, can compromise board effectiveness by concentrating power and reducing oversight (Judge et al., 2003). Studies suggest that BoD

duality weakens governance structures, leading to ineffective monitoring and lower firm performance (Dechow et al., 1995; Klein, 2020; Rahman and Haniffa, 2005). In contrast, separating the CEO and chairman roles enhances board independence and decision-making. Thus, the following hypothesizes is posited:

Hypothesis H<sub>3</sub>: BoD duality negatively affects firm performance.

Frequent BoD meetings provide opportunities for CEOs to monitor management activities, improving transparency and reducing risks associated with poor governance. Brick and Chidambaran (2010) argue that regular board meetings enhance strategic decision-making and improve financial performance. By increasing oversight, frequent board meetings can mitigate managerial opportunism and contribute to better firm performance. However, the high frequency of BoD meetings can reflect that the company is facing urgent problems (Nguyen et al., 2022). This study concerns the roles of BoD in enhancing decision-making, thus the hypothesis H<sub>4</sub> is postulated:

Hypothesis H<sub>4</sub>: BoD meeting frequency positively affects firm performance.

Gender diversity in boards has been widely studied, with findings suggesting that female directors bring diverse perspectives, improve decision-making, and enhance corporate reputation (Adams and Ferreira, 2007; 2009). Female board members contribute to a better understanding of market dynamics, promote ethical business practices, and improve overall governance quality. Additionally, diverse boards foster innovation and inclusivity, benefiting long-term firm performance (Carter et al., 2003).

Hypothesis H<sub>5</sub>: BoD gender diversity positively affects firm performance.

#### *2.4.2. Supervisory board characteristics and financial performance*

The supervisory board (SB) plays a crucial role in ensuring corporate transparency, compliance with financial regulations, and mitigating fraudulent activities (Dienes and Velte, 2016, 2021). It functions as an additional governance mechanism by overseeing managerial decisions and financial disclosures, thereby strengthening corporate accountability (Klein, 2002). A well-structured supervisory board enhances corporate governance effectiveness, ultimately influencing firm performance (Abbott et al., 2004).

The size of the SB determines its ability to oversee and regulate corporate governance decisions effectively. A larger SB provides a wider range of expertise, allowing for improved risk assessment and strategic decision-making (Detthamrong et al., 2017). While some studies report a negative relationship between SB size and firm performance due to coordination difficulties (Aldamen et al., 2012), others find a positive impact, particularly in emerging markets or Islamic firms (Wijayanti and Setiawan, 2022). Given the regulatory framework outlined in Article 168 of the 2020 Enterprise Law, which stipulates a supervisory board size ranging from three to five members, it is expected that an optimally sized board will contribute positively to firm performance.

H<sub>6</sub>: The SB size positively affects firm performance.



Frequent SB meetings facilitate active engagement, timely oversight, and better monitoring of financial reporting processes (DeZoort et al., 2002). Research suggests that companies with more frequent SB meetings exhibit higher financial transparency and reduced earnings management (Vafeas, 2005). Song et al. (2019) find a significant negative relationship between the number of SB meetings and firm performance, which suggests an ineffective SB in Chinese firms. The SEC mandates a minimum of two meetings per year, highlighting the importance of board engagement in financial oversight (Abbott et al., 2000). Companies that hold more than two meetings annually are likely to experience improved governance efficiency, enhancing firm performance (Hossain and Oon, 2022).

Hypothesis H<sub>7</sub>: The frequency of SB meetings positively affects firm performance.

Board diversity, particularly gender diversity, enhances decision-making quality by incorporating diverse perspectives and reducing groupthink (Adams and Ferreira, 2009). Greater gender diversity in SB is linked to higher quality financial reporting and enhanced corporate governance practices (Carter et al., 2003). Firms with a higher proportion of female SB members tend to exhibit improved transparency, accountability, and financial performance (Farber, 2005). Given the increasing emphasis on gender diversity in corporate governance policies, companies with a more diverse SB are expected to achieve better firm performance.

Hypothesis H<sub>8</sub>: The SB gender diversity positively affects firm performance.

#### 2.4.3. Risk management mechanism and firm performance

Risk management mechanisms play a crucial role in corporate governance by identifying, assessing, and mitigating potential risks that could impact a firm's financial stability and performance. Effective risk management ensures transparency, accountability, and compliance with regulatory standards, thereby protecting shareholder interests and promoting sustainable growth (Dong et al., 2023; OECD, 2023; Zerihun and Affedjou, 2025). One of the key components of risk management is the integration of internal and external audit functions (Anh and Hoa, 2021), which collectively enhance firm performance.

Asare et al. (2008) highlight that external auditors play an essential role in detecting managerial misstatements due to their sensitivity to management incentives. An effective internal audit function provides an additional layer of monitoring, helping to curb opportunistic managerial behavior (Messier et al., 2006). The quality of external audits by using Big4 services is shown to exert a significantly positive influence on firms' financial performance by Tobin's Q (Al-Ahdal and Hashim, 2022), ROA and ROE (Elewa and El-Haddad, 2019). In contrast, Monametsi and Agasha (2020) reveal that the use of Big 4 auditors as a measure of audit quality has a negative but statistically insignificant impact on firm financial performance in Botswana and Uganda. However, many studies confirm that enhancement of audit quality can lead to better firm performance (Nguyen and Nguyen, 2024).

H<sub>9</sub>: Using Big4 audit services positively impact firm performance.

Another critical aspect of risk management is the outsourcing of internal audit functions, which has been identified as a mechanism for enhancing audit effectiveness. Alzeban (2023) criticized the simplistic binary measurement of internal audit effectiveness, arguing that merely assessing the presence or absence of an internal audit function does not fully capture its impact on firm performance. Instead, outsourcing internal audit functions to independent professionals can enhance the credibility and objectivity of financial oversight, leading to improved governance outcomes (Prawitt et al., 2009). Jiang et al. (2020) discuss that outsourcing internal audit activities reduces the positive influence of the internal audit function on performance. The study posits the following hypothesis:

H<sub>10</sub>: Outsourced internal audit functions positively impact firm performance.

#### 2.4.4. Control variable

Accrual quality represents the embedded content of abnormal accruals within the overall structure of a firm's reported earnings. Abnormal accruals are often used to justify earnings management activities, reflecting managerial opportunistic behavior. A lower level of abnormal accrual content indicates that reported earnings are less influenced by managerial discretion and may better reflect the firm's true financial performance. Accruals are formulated based on past, current, and future cash flows, as their primary role is to adjust the timing of cash flow recognition within reported earnings (Dechow et al., 2010). Poor earnings quality creates information risk for firms as it affects investors' valuation decisions; Specifically, cash flow is a fundamental factor in investor valuation, and poor accrual quality indicates that information regarding the transformation of earnings into cash flow is unclear to investors (Francis et al., 2005). This lack of clarity can increase information risk and, consequently, raise a firm's cost of capital. Given that a firm's market value is considered an unbiased present value of expected current and future cash flows discounted at a risk-adjusted cost of capital, a lower cost of capital reflects a better valuation of the firm (Gaio and Raposo, 2011). Consistent with the prior studies discussed above, a positive relationship is expected between accrual quality and firm performance.

Furthermore, firm age was also used as a control variable in this research. Coad et al. (2013) reveal that firm age significantly influences firm performance, with older firms benefiting from established brand reputation, enhanced resource acquisition capabilities, and accumulated experience. Firm age often provides advantages in resource stability and knowledge accumulation.

## 3. MATERIALS AND METHODS

### 3.1. Variable Measurement and Research Equation

In this research, ROE is a proxy of financial performance. ROE, as a financial measure, is an indicator of a firm's profitability and how efficiently it creates income (Fernando, 2024). Board composition and risk management mechanisms were used to measure corporate governance indices. Board composition refers to the structure and characteristics of a company's BoD and SB (Muchemwa et al., 2016) and its risk management mechanism. The measurement of corporate governance and financial performance variables were adapted from previous studies by Dang et al. (2020), Bich and

Uyen (2019), and earnings quality originated from Dechow and Dichev (2002). The measurement is shown in Table 1.

Based on the research hypotheses, the study's research equation is constructed as follows:

$$ROE_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 BIND_{it} - \beta_3 BDUAL_{it} + \beta_4 BMEET_{it} + \beta_5 BFE_{it} + \beta_6 SSIZE_{it} + \beta_7 SMEET_{it} + \beta_8 SFE_{it} + \beta_9 AUDIT_{it} + \beta_{10} OIA_{it} + \beta_{11} EQ_{it} + \beta_{11} FAGE_{it} + \varepsilon_{it}$$

### 3.2. Data Collection and Analysis

This study utilizes panel data that include information collected from the annual financial reports of 210 listed non-financial firms on two Vietnam's stock exchanges, HoSE and HNX, during the 2018-2023 period. The data was aggregated from two prestigious sources, including Vietstock and Fiitrade. A total sample of 1260 observations spreading out non-financial business sectors is strongly balanced.

To examine the relationship between corporate governance and firm performance, the study employs panel data regression techniques, including Pooled Ordinary Least Squares (Pooled OLS), Fixed Effects Model (FEM), and Random Effects Model (REM), using STATA 17. The selection of these models is based on the nature of the panel data, which combines cross-sectional and time-series elements, allowing for better control of unobserved heterogeneity. While the Pooled OLS model assumes homogeneity and ignores firm-specific effects, the FEM accounts for time-invariant individual characteristics that may correlate with

explanatory variables, and the REM assumes that these effects are uncorrelated with the regressors, thereby offering more efficient estimates when appropriate. To identify the most suitable model, the study applies the Hausman test to choose between FEM and REM. Given the presence of heteroskedasticity in the panel data, the Feasible Generalized Least Squares (FGLS) method is further applied to correct this defect and enhance the robustness and validity of the final model estimates.

## 4. RESULTS AND DISCUSSION

The results of variable descriptives are depicted in Table 2. The results in Table 2 indicate that the average BoD size is 5.44, with a minimum of 3 and a maximum of 11 members. The proportion of independent non-executive directors averages 41.62%, ranging from a minimum of 20% to a maximum of 100%. On average, board meetings are held 11.218 times/year, with the lowest frequency being one meeting per year and the highest reaching 101 meetings/year. Additionally, 7.8% of firms have a dual role where the chairperson also serves as the CEO. The average percentage of female board members is 15.7%.

Regarding the supervisory board, the average number of supervisory board members in the sample is 3.02, with a minimum of 2 and a maximum of 6 members. The supervisory board meets an average of 3.45 times/year, with the lowest being one meeting per year and the highest 35 meetings/year. The average proportion of female SB members is 51.4%. And 0.95% of firms employ outsourced internal audit services, while 20.6% of firms are audited by one of the Big Four auditing firms.

Table 2 also shows the pairwise correlation matrix of variables used in this research and summary statistics. The correlation analysis reveals that EQ exhibits the strongest positive relationship with ROE ( $r = 0.3558$ ). BDSIZE and SFE also show moderate positive correlations with ROE, with coefficients of 0.1516 and 0.1258, respectively.

This study employs panel data regression using the Ordinary Least Squares (OLS), Fixed Effects Model (FEM), and Random Effects Model (REM). To determine the most appropriate model, the Hausman test is conducted, comparing FEM and REM results. The results is summarized in Table 3.

The result of the Hausman test in Table 3 with  $P < 0.05$  rejects the null hypothesis ( $H_0$ ). This result indicates that the REM model is not appropriate, and the FEM model should be used in this study. The research further examines the defects of the research model. The description of the tests conducted and their results are presented in Table 4.

The results in Table 4 show that heteroskedasticity exists in the research model. FGLS is employed to fix the defect of heteroskedasticity in the FEM model. The FGLS results are depicted in Table 5.

The regression model used in Table 5 demonstrates an explanatory power in explaining the variation in financial performance

**Table 1: Indicators measurement**

Variables	Code	Measurement
Returns on equity	ROE	Net income/equity
BoD size	BSIZE	The number of BoD member
BoD Independence	BIND	Percentage of independent members on the BoD
BoD duality	BDUAL	BDUAL=1 if Chairman is CEO; otherwise BDUAL=0
BoD meeting	BMEET	The number of BoD meetings
BoD diversity	BFE	Percentage of women on BoD
SB size	SSIZE	The number of SB members
SB meeting	SMEET	The number of SB per year
SB diversity	SFE	Percentage of women on the SB
Audit quality	AUDIT	AUDIT=1 if financial statements is audited by Big4, otherwise 0.
Outsourced internal audit	OIA	OIA=1 if firm outsourced internal audit functions, otherwise 0.
Earnings quality	EQ	EQ is the residual from the equation: $WAC_{it} = \alpha + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \varepsilon_{it}$ <ul style="list-style-type: none"> <li>WAC is total current accruals which calculated by (the yearly change in current assets – the yearly change in current liabilities – the yearly change in total cash+the yearly change in current debt)</li> <li>CFO is operating cash flows.</li> </ul>
Firm age	FAGE	The research year – listed year If the company was listed after the research year, FAGE=0

Source: Authors' summary

Table 2: Summary of descriptive statistics and pairwise correlation matrix

	ROE	BDSIZE	BDIND	BDUAL	BMEET	BFE	SSIZE	SMEET	SFE	AUDIT	OIA	EQ	FAGE
ROE	1												
BDSIZE	0.1516***	1											
BDIND	0.0274	0.1618***	1										
BDUAL	0.0332	0.0165	0.0253	1									
BMEET	0.0063	0.0800**	0.015	0.0728*	1								
BFE	0.0099	0.0015	0.004	0.0532*	0.0584**	1							
SSIZE	0.0763**	0.0708**	0.0024	0.0423	0.1535***	0.0336	1						
SMEET	0.0463	0.0700**	0.0737**	0.0587**	0.0693*	0.0383	0.0946**	1					
SFE	0.1258***	0.0394	0.0762**	0.01	0.1038***	0.0833**	0.1671***	0.0819**	1				
AUDIT	0.0057	0.0185	0.1210***	0.0285	0.0742**	0.0333	0.0257	0.027	0.0352	1			
OIA	0.0623**	0.1653***	0.0648**	0.0283	0.1819***	0.1119***	0.0551*	0.0329	0.1153***	0.0917***	1		
EQ	0.3558***	0.0561**	0.0078	0.0069	0.0442	0.0457	0.013	0.0395	0.03	0.0068	0.0188	1	
FAGE	0.0758**	0.0172	0.0891**	0.0956***	0.0247	0.0047	0.0168	0.0194	0.0364	0.0304	0.0003	0.0739***	1
Descriptive statistics													
Mean	0.1108	5.4444	0.4161	0.9222	11.2183	0.1571	3.0214	0.9294	0.5139	0.0095	0.2056	0.0022	9.4913
Standard deviation	0.1500	1.1753	0.1896	0.2679	9.9556	0.1754	0.5540	0.2563	0.3452	0.0972	0.4043	0.1229	4.5924
Min	-1.5141	3	0.2	0	1	0	2	0	0	0	0	-0.9828	0
Max	0.9624	11	1	1	101	1	6	1	1	1	1	0.5413	23
Obs.	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260

\*, \*\*, and \*\*\*denote statistical significance at 10%, 5%, and 1%, respectively

Table 3: Result of Hausman test

Test of $H_0$ : Difference in coefficients not systematic	
chi <sup>2</sup> (12)	$= (b - B)'[(V_b - V_B)^{-1}](b - B)$ =1051.49
Prob > chi <sup>2</sup>	=0.0000

measured by ROE. The R-squared value indicates the proportion of variance in ROE explained by the predictors, while the adjusted R-squared accounts for the number of independent variables in the model. The R-squared value of the model is 0.5321, indicating that approximately 53.21% of the variations in ROE can be explained by the independent variables, including corporate governance proxies of BoD characteristics, SB characteristics, risk management mechanism, and control variables as well. The adjusted  $R^2 = 0.4973$  suggests that after adjusting for the number of predictors, the model still retains robust explanatory power. The findings suggest that the model effectively captures the variations in ROE, reinforcing the appropriateness of the research model. Table 5 also provides insights into the factors influencing financial performance through ROE in non-financial listed companies in Vietnam.

Regarding the BoD characteristics, hypotheses  $H_1$ ,  $H_3$ , and  $H_4$  are statistically significant. BoD size ( $B = 0.0141$ ; sig. = 0.000) positively impacts ROE, suggesting that larger boards contribute to better financial performance, consistent with Al-Othman and Al-Zoubi (2019), and Hoa et al. (2024). However, BoD duality has a negative effect, implying that the concentration of power in a single individual when the CEO concurrently takes over as chairman undermines financial performance. BoD meeting frequency has a statistically negative effect on ROE ( $B = -0.0004$ ; sig. = 0.041) that does not agree with Brick and Chidambaran (2010) but is consistent with Nguyen et al. (2022). The result demonstrates that the higher board meeting frequency leads to ineffective decision-making and financial performance, which can be linked to Table 2 with a maximum value of 101 BOD meeting times. Hypotheses  $H_2$  and  $H_5$  are insignificant with BoD independence ( $B = -0.0055$ ; sig. = 0.578) and BoD gender diversity ( $B = 0.152$ ; sig. = 0.146), respectively. So, there is insufficient evidence to conclude the impact of BoD independence and BoD gender diversity.

Among the supervisory board characteristics, SB size ( $B = -0.0104$ ; sig. = 0.001) and SB gender diversity ( $B = -0.0516$ ; sig. = 0.000) negatively impact ROE. The largest SB size in the dataset is six members, while the Vietnamese enterprise law stipulates from 2 to 5 members. So, companies with a large SB size may trigger an operating complexity and lack of concentration of opinions, which agrees with Aldamen et al. (2012). The effect of SB gender diversity is inconsistent with previous studies by Carter et al. (2003) or Farber (2005). Similarly, SB meeting frequency ( $B = 0.0225$ ; sig. = 0.002) exhibits a positive relationship with ROE, suggesting frequent meetings achieve more excellent performance for listed firms.

Regarding risk management mechanisms, the use of Big4 services ( $B = 0.0219$ ; sig. = 0.246) does not statistically affect ROE, indicating that while external audit quality is crucial, the evidence is insufficient to show the impact on profitability. Conversely,



**Table 4: Summary of defects examinations**

Defects	Test	Threshold	Results	Conclusion
Multicollinearity	VIF	VIF values < 2	Mean VIF: 1.05	No multicollinearity
Heteroskedasticity	Modified Wald test	$H_0$ : There is no heteroskedasticity across groups	$\chi^2(210)=490790.91$ Prob > $\chi^2 = 0.0000$	Heteroskedasticity
Autocorrelation	Wooldridge test	$H_0$ : no first-order autocorrelation	F (1,209)=0.215 Prob > F = 0.6431	No autocorrelation

**Table 5: The summary of FGLS results with heteroskedasticity**

ROE	Coefficient	Standard error	z	P>z	[95% confidence interval]	
BDSIZE	0.0141	0.0017	8.24	0.000	0.0107	0.0174
BDIND	0.0055	0.0099	0.56	0.578	-0.0139	0.0250
BDUAL	-0.0127	0.0074	-1.71	0.087	-0.0271	0.0018
BMEET	-0.0004	0.0002	-2.05	0.041	-0.0008	0.0000
BFE	0.0152	0.0105	1.45	0.146	-0.0053	0.0358
SSIZE	-0.0104	0.0030	-3.45	0.001	-0.0163	-0.0045
SMEET	0.0225	0.0071	3.15	0.002	0.0085	0.0364
SFE	-0.0516	0.0054	-9.53	0.000	-0.0623	-0.0410
AUDIT	0.0219	0.0189	1.16	0.246	-0.0151	0.0589
OIA	0.0206	0.0051	4.07	0.000	0.0107	0.0305
EQ	0.2685	0.0201	13.38	0.000	0.2291	0.3078
FAGE	-0.0018	0.0004	-4.31	0.000	-0.0026	-0.0010
_cons	0.0876	0.0169	5.19	0.000	0.0545	0.1207
R-square=0.5855			Number of obs=1,260			
Adj R-squared=0.4973			Wald $\chi^2(12)=563.12$			
			Prob> $\chi^2=0.0000$			

outsourced internal audit ( $B = 0.0206$ ; sig. = 0.000) demonstrates a significant positive effect on ROE, supporting that outsourcing internal audit functions strengthens governance and performance.

Among the control variables, earnings quality ( $B = 0.2685$ ; sig. = 0.000) has a positively significant association with ROE, suggesting that higher earnings quality contributes to stronger financial performance. Firms with high-quality earnings will provide clarity of information, leading to transparency and attracting investors to have more capital for operation activities. These findings agree with Duarte et al. (2024). Firm age ( $B = -0.0018$ ; sig. = 0.000) exhibits a statistically significant effect, implying that firm maturity alone does not necessarily influence ROE, which is not in accordance with Coad et al. (2013).

## 5. CONCLUSION AND IMPLICATIONS

This study investigates the influence of corporate governance on financial performance, focusing on BoD characteristics, SB characteristics, and risk management mechanisms in Vietnamese listed firms. The findings in the research suggest that board size positively impacts ROE, as larger boards contribute to better decision-making and financial performance. In contrast, BOD duality and BOD meeting frequency negatively affect ROE, indicating that excessive concentration of power and overly frequent meetings may reduce governance efficiency, leading to low financial performance. Regarding the supervisory board, meeting frequency positively impacts ROE; however, SB size and gender diversity show negative effects, potentially due to operational inefficiencies and decision-making challenges in larger

or more diverse supervisory boards. Outsourced internal audits enhance financial performance by strengthening internal control, whereas the use of Big4 audit services does not have a statistically significant impact. Additionally, earnings quality is crucial in improving ROE, emphasizing the importance of transparent and reliable financial information to enhance financial performance.

The findings provide some implications for policymakers and decision-makers. Regulators should promote an effective board structure by balancing board size and ensuring independence to optimize governance efficiency. Companies should carefully evaluate and implement board meeting frequency and avoid excessive meetings that may hinder decision-making. Additionally, SB structures should be designed to enhance efficiency rather than focusing solely on size or diversity. Encouraging outsourced internal audits can further strengthen corporate governance frameworks, improving transparency and financial performance. This study contributes to the corporate governance literature by providing empirical evidence from an emerging market and highlighting the role of governance mechanisms in enhancing firm performance.

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