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Board Characteristics and Earnings Management: Evidence from Vietnamese Listed Firms

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A B S T R A C T

Purpose: This study examines the impact of board characteristics on earnings management in Vietnamese listed firms. Design/methodology/approach: Using panel data from non-financial firms listed on HOSE and HNX during 2015–2023, the study employs regression analysis to investigate the relationship between board characteristics and both accrual-based and real earnings management. Findings: The results indicate that only selected board characteristics are associated with earnings management, while most board attributes show insignificant effects. Practical implications: The findings provide implications for regulators and firms in strengthening corporate governance mechanisms to improve financial reporting quality. Originality/value: This study contributes to the literature by providing evidence from an emerging market and by examining both accrual-based and real earnings management simultaneously

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INTRODUCTION

Earnings management has long been a major concern in accounting and corporate governance research because reported earnings are widely used by investors, creditors, regulators, and other stakeholders to evaluate firm performance and make economic decisions. Although earnings management does not necessarily constitute financial fraud, it reflects managerial discretion in financial reporting and business decisions that may distort a firm's underlying economic performance. Prior studies define earnings management as the deliberate use of judgment in financial reporting or transaction structuring to influence reported earnings and achieve specific managerial objectives (Schipper, 1989; Healy & Wahlen, 1999; Ronen & Yaari, 2008). Consequently, earnings management may reduce the reliability of financial statements and weaken investor confidence in capital markets. The importance of earnings management has been highlighted by a number of high-profile corporate scandals, including Enron, WorldCom, and Parmalat, where the manipulation of accounting information resulted in substantial investor losses and declining market confidence. Previous research suggests that managers may engage in earnings management for various reasons, such as compensation incentives, debt covenant considerations, capital market pressures, tax motives, and other strategic objectives (Healy, 1985; Watts & Zimmerman, 1990; Frank et al., 2009). These incentives are particularly relevant for listed firms because their financial performance is continuously monitored by investors and other market participants. In Vietnam, earnings management has become an increasingly important issue as the stock market continues to develop and listed firms face growing pressure to provide transparent and reliable financial information. Existing evidence indicates that Vietnamese firms may engage in earnings management around major corporate events, including equity offerings and initial public offerings, or during periods of financial distress and economic uncertainty (Pham & Tran, 2020; Nguyen & Duong, 2021). These findings suggest that earnings management in Vietnam is often associated with specific managerial incentives rather than occurring randomly.

Corporate governance mechanisms are expected to play a critical role in constraining such opportunistic behavior. Among these mechanisms, the board of directors is particularly important because it is responsible for monitoring management, protecting shareholders' interests, and improving the quality of financial reporting. Agency Theory argues that effective board monitoring can mitigate conflicts of interest arising from the separation of ownership and control (Jensen & Meckling, 1976; Fama & Jensen, 1983). In addition, Resource Dependence Theory suggests that directors contribute valuable expertise, experience, and external resources that enhance governance effectiveness (Pfeffer & Salancik, 1978). Therefore, board characteristics such as board size, board independence, gender diversity, CEO duality, financial expertise, and board ownership may influence the extent to which firms engage in earnings management. Despite extensive research, empirical evidence regarding the relationship between board characteristics and earnings management remains inconclusive. While some studies report that stronger board monitoring mechanisms reduce earnings management, others find insignificant or contradictory results. These inconsistencies may stem from differences in institutional environments, ownership structures, governance practices, and measurement approaches. Furthermore, most existing studies focus primarily on AEM, whereas managers may also engage in real earnings management (REM) by altering normal business activities, such as sales practices, production decisions, or discretionary expenditures, to achieve desired earnings targets (Roychowdhury, 2006; Cohen & Zarowin, 2010). Examining only one form of earnings management may therefore provide an incomplete understanding of managerial behavior.

In the Vietnamese context, evidence on the governance–earnings management relationship remains fragmented. Most prior studies examine only selected board characteristics or focus on a single form of earnings management. Consequently, limited evidence is available regarding whether board characteristics influence accrual-based and REM differently. Addressing this gap is important because managers may substitute between AEM and REM depending on governance constraints and reporting incentives. Against this background, this study investigates the impact of board characteristics on both accrual-based and REM among Vietnamese listed firms during the period 2015–2023. Specifically, the study examines whether board size, board independence, board gender diversity, CEO duality, board financial expertise, and board ownership affect earnings management practices. Using panel data from non-financial firms listed on the Ho Chi Minh Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX), the study provides evidence from an emerging market where corporate governance mechanisms are still evolving. This study contributes to the literature in three ways. First, it provides updated evidence on the relationship between board characteristics and earnings management in Vietnam. Second, it examines multiple board attributes within a unified analytical framework rather than focusing on a limited set of governance factors. Third, it simultaneously investigates both accrual-based and REM, offering a more comprehensive understanding of managerial reporting behavior. The findings are expected to provide useful implications for regulators, investors, and listed firms seeking to strengthen corporate governance and improve financial reporting quality.

LITERATURE REVIEW

Theoretical Background

Agency Theory

Agency Theory, developed by Jensen and Meckling (1976), explains the conflicts of interest arising from the separation of ownership and control in modern corporations. In listed firms, shareholders delegate decision-making authority to managers, creating an agency relationship in which managers may pursue personal objectives that do not always align with shareholder interests. Information asymmetry further limits shareholders' ability to effectively monitor managerial actions. Within this context, earnings management can be viewed as a manifestation of agency problems. Managers may use their discretion over financial reporting and operating decisions to influence reported earnings in pursuit of personal benefits, such as compensation incentives, job security, or market expectations (Healy & Wahlen, 1999; Ronen & Yaari, 2008). The board of directors serves as a key internal governance mechanism for mitigating agency conflicts and monitoring managerial behavior. Effective board oversight can reduce managerial opportunism and improve financial reporting quality (Fama & Jensen, 1983). Accordingly, board characteristics, including board size, board independence, gender diversity, CEO duality, financial expertise, and board ownership, may influence the board's effectiveness in constraining earnings management. Therefore, Agency Theory provides the primary theoretical foundation for examining the relationship between board characteristics and earnings management.

Resource Dependence Theory

Resource Dependence Theory (Pfeffer & Salancik, 1978) suggests that organizations rely on external resources for survival and growth, and that the board of directors plays an important role in securing access to these resources. Beyond its monitoring function, the board provides firms with valuable expertise, experience, legitimacy, and connections to external stakeholders. From this perspective, board effectiveness depends not only on its ability to monitor management but also on the resources contributed by board members. Directors with diverse backgrounds and professional expertise may enhance strategic decision-making, improve oversight quality, and strengthen governance effectiveness. These resources can help boards better evaluate managerial decisions and financial reporting practices. In the context of earnings management, Resource Dependence Theory suggests that boards possessing greater expertise, diversity, and external resources are more capable of constraining opportunistic managerial behavior and improving financial reporting quality. Therefore, Resource Dependence Theory complements Agency Theory by emphasizing how board resources and expertise enhance governance effectiveness and influence earnings management.

Board Characteristics and Earnings Management

Board Size

Board size is one of the most widely examined board characteristics in corporate governance research. According to Agency Theory, a larger board may enhance monitoring effectiveness by providing greater oversight capacity, broader expertise, and more diverse perspectives in evaluating managerial decisions. As the number of directors increases, managerial actions are subject to closer scrutiny, potentially reducing opportunistic behavior and earnings manipulation. However, empirical evidence regarding the relationship between board size and earnings management remains inconclusive. Several studies report that larger boards are associated with lower levels of earnings management, suggesting that increased monitoring capacity and diversity contribute to higher financial reporting quality (Aygun & Sayim, 2014; Mehmet et al., 2014; Pham, 2022; Nguyen et al., 2024). In contrast, other studies argue that excessively large boards may experience coordination difficulties, slower decision-making processes, and communication inefficiencies, which can weaken governance effectiveness and increase the likelihood of earnings management (Kao & Chen, 2004; Epps & Ismail, 2009; Agyeman, 2020; Githaiga et al., 2022). Similar findings have been reported in Vietnam (Bui & Ngo, 2017; Dang et al., 2022). Furthermore, several studies find no significant relationship between board size and earnings management (Al-Fayoumi et al., 2010; Nugroho & Eko, 2011). Despite these mixed findings, Agency Theory suggests that a larger board generally strengthens monitoring capacity and limits managerial discretion. Therefore, this study expects board size to be negatively associated with earnings management among Vietnamese listed firms.

H1: Board size is negatively associated with earnings management.

Board Independence

Board independence is widely regarded as an important governance mechanism for mitigating agency conflicts and improving financial reporting quality. According to Agency Theory, independent directors are expected to monitor managerial actions more effectively because they are less likely to be influenced by management or controlling shareholders. Their presence may strengthen board oversight, promote objective decision-making, and reduce opportunities for managers to engage in opportunistic earnings manipulation. A substantial body of empirical evidence supports the view that board independence constrains earnings management. Prior studies suggest that firms with a higher proportion of independent directors tend to exhibit lower levels of earnings management because independent board members provide stronger monitoring and are more willing to challenge managerial decisions (Beasley, 1996; Klein, 2002; Uzun et al., 2004; Davidson et al., 2005). Similar findings are reported by Githaiga et al. (2022). In Vietnam, Pham (2022), Dang et al. (2022), and Bui & Nguyen (2023) also document a negative association between board independence and earnings management. However, empirical findings remain inconclusive. Several studies report no significant relationship between board independence and earnings management (Hashim & Devi, 2008; Al-Fayoumi et al., 2010; Nugroho & Eko, 2011; Daghsni et al., 2016; Ngo, 2018). These findings suggest that the presence of independent directors alone may not guarantee effective monitoring, particularly when independent directors lack sufficient expertise, information access, or influence over managerial decisions. Despite these mixed findings, Agency Theory suggests that independent directors generally enhance board monitoring effectiveness and reduce managerial discretion. Therefore, this study expects board independence to be negatively associated with earnings management among Vietnamese listed firms.

H2: Board independence is negatively associated with earnings management.

Board Gender Diversity

Board gender diversity has received increasing attention in the corporate governance literature due to its potential influence on board effectiveness and financial reporting quality. From an Agency Theory perspective, female directors may strengthen board monitoring by providing independent viewpoints, encouraging more rigorous discussions, and challenging managerial decisions when necessary. Prior studies also suggest that women tend to exhibit higher ethical sensitivity, greater risk awareness, and stronger concerns for transparency and accountability, which may reduce managerial incentives to engage in earnings manipulation. Empirical evidence generally supports the view that board gender diversity constrains earnings management. Several studies find that the presence of female directors improves board monitoring and financial reporting quality, thereby reducing earnings management practices (Adams & Ferreira, 2009; Konrad et al., 2008; Gul et al., 2011; Srinidhi et al., 2011; Lakhal et al., 2015; Githaiga et al., 2022). Evidence from Vietnam is largely consistent with this view. Nguyen et al. (2024), and Ngo (2018) report that gender-diverse boards are associated with lower earnings management and higher financial reporting quality. Nevertheless, the effectiveness of gender diversity may depend on the actual influence of female directors within the board. Prior studies suggest that gender diversity is more likely to improve governance outcomes when female directors represent a meaningful proportion of board membership rather than serving symbolic roles (Konrad et al., 2008; Lakhal et al., 2015). Consequently, the impact of board gender diversity may vary across firms and institutional environments. Despite these considerations, the prevailing evidence suggests that female directors enhance board monitoring, promote transparency, and reduce managerial opportunism. Therefore, this study expects board gender diversity to be negatively associated with earnings management among Vietnamese listed firms.

H3: Board gender diversity is negatively associated with earnings management.

CEO Duality

CEO duality refers to a governance structure in which the Chief Executive Officer simultaneously serves as the Chairperson of the Board. The relationship between CEO duality and earnings management has been widely debated in the corporate governance literature. According to Agency Theory, the separation of these two positions is necessary to ensure effective board oversight and reduce managerial opportunism. When decision-making authority and monitoring responsibilities are concentrated in a single individual, board independence may be weakened, increasing the likelihood of earnings management. A substantial body of empirical evidence supports this argument. Prior studies suggest that CEO duality reduces board monitoring effectiveness and increases managerial discretion over financial reporting decisions (Finkelstein & D'Aveni, 1994; Klein, 2002; Abdul Rahman & Haniffa, 2005). Similarly, Nugroho and Eko (2011), and Pham (2022) report that firms with CEO duality tend to exhibit higher levels of earnings management, suggesting that the concentration of authority may facilitate earnings manipulation. In contrast, Stewardship Theory argues that combining the roles of CEO and board chair may improve leadership effectiveness by enabling faster decision-making, clearer strategic direction, and stronger organizational coordination. From this perspective, CEO duality does not necessarily encourage opportunistic behavior and may even enhance organizational performance. Consistent with this view, several studies find no significant relationship between CEO duality and earnings management (Xie et al., 2003; Kao & Chen, 2004; Hashim & Devi, 2008; Moradi & Salehi, 2012; Ngo, 2018). Although empirical findings remain mixed, Agency Theory suggests that CEO duality is more likely to weaken board independence and monitoring effectiveness, particularly in emerging markets where external governance mechanisms are still developing. Therefore, this study expects CEO duality to be positively associated with earnings management among Vietnamese listed firms.

H4: CEO duality is positively associated with earnings management.

Board Expertise

Board expertise, particularly financial and accounting expertise, is widely regarded as an important determinant of board effectiveness and financial reporting quality. According to Agency Theory, directors with relevant financial knowledge are better equipped to monitor managerial actions, evaluate accounting decisions, and detect potential earnings manipulation (Jensen & Meckling, 1976; Fama & Jensen, 1983). Resource Dependence Theory further suggests that directors with specialized expertise contribute valuable knowledge and resources that enhance governance quality and strengthen oversight of financial reporting processes. A substantial body of empirical evidence supports the argument that board financial expertise constrains earnings management. Prior studies find that directors with accounting and financial backgrounds improve board monitoring effectiveness and contribute to higher-quality financial reporting (Agrawal & Chadha, 2005; DeFond et al., 2005). Similarly, Klein (2002), and Githaiga et al. (2022) report that firms with a higher proportion of financially knowledgeable directors are less likely to engage in earnings management. Evidence from Vietnam is largely consistent with this view. Ngo (2018), and Bui & Nguyen (2023) find that board financial expertise strengthens oversight and reduces managerial incentives to manipulate reported earnings. However, empirical findings remain mixed. Pham (2022) reports a positive association between board financial expertise and earnings management, suggesting that financially sophisticated directors may not always function as effective monitors. In certain circumstances, their expertise may facilitate more sophisticated earnings management practices or reflect governance environments in which monitoring mechanisms are less effective. Furthermore, Ngo (2018) finds no significant relationship between board financial expertise and REM, indicating that board expertise may affect different forms of earnings management in different ways. Despite these mixed findings, both Agency Theory and Resource Dependence Theory suggest that financially knowledgeable directors enhance the board’s monitoring capacity and improve financial reporting quality. Therefore, this study expects board expertise to be negatively associated with earnings management among Vietnamese listed firms.

H5: Board expertise is negatively associated with earnings management.

Board Ownership

Board ownership refers to the proportion of company shares held by members of the board of directors. The relationship between board ownership and earnings management remains inconclusive because board ownership may create both monitoring incentives and opportunities for managerial entrenchment. According to Agency Theory, when directors hold company shares, their interests become more closely aligned with those of shareholders. Consequently, directors are more likely to focus on long-term firm value and less likely to tolerate earnings manipulation that could harm the firm’s reputation and future performance (Jensen & Meckling, 1976). A number of studies support this alignment perspective. Warfield et al. (1995) find that managerial ownership is associated with higher earnings quality and lower levels of earnings management. Similar evidence is reported by Mehmet et al. (2014), suggesting that greater ownership by board members strengthens the alignment of interests between directors and shareholders, thereby reducing incentives for opportunistic financial reporting. Evidence from Vietnam is broadly consistent with this view. Nguyen et al (2024) reports that higher board ownership is associated with greater financial reporting transparency and lower earnings management.

However, board ownership may also generate adverse governance consequences. When directors hold substantial ownership stakes, they may accumulate greater influence and become less subject to effective monitoring. Under such circumstances, ownership may facilitate entrenchment and increase directors' ability to pursue private benefits. Consequently, directors with significant ownership interests may have incentives to manipulate earnings to maintain stock prices, achieve compensation targets, or enhance personal wealth. This perspective suggests that board ownership does not always improve governance quality and may even encourage opportunistic behavior under certain conditions (Warfield et al., 1995). In contrast, several studies find no significant relationship between board ownership and earnings management (Nugroho & Eko, 2011). Although empirical findings remain mixed, Agency Theory suggests that moderate board ownership generally aligns the interests of directors and shareholders, thereby reducing incentives for earnings manipulation. Therefore, this study expects board ownership to be negatively associated with earnings management among Vietnamese listed firms.

H6: Board ownership is negatively associated with earnings management.

Control Variables

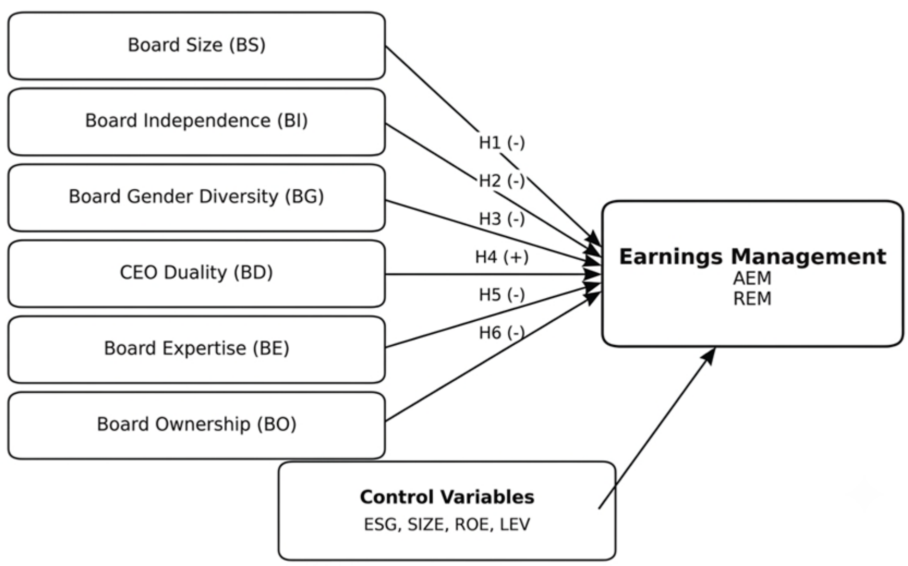
To isolate the effects of board characteristics on earnings management, this study includes several firm-specific control variables that have been widely employed in prior earnings management research. These variables are incorporated to reduce omitted variable bias and provide a more reliable assessment of the relationship between board characteristics and earnings management. Firm Size (SIZE) is included because larger firms are generally subject to greater scrutiny from regulators, auditors, analysts, and investors. Such monitoring may constrain managerial opportunism and reduce earnings management. However, larger firms may also face stronger pressure to meet market expectations, creating incentives for earnings manipulation. Therefore, firm size is controlled for in the analysis (Watts & Zimmerman, 1990; Dechow et al., 1995). Profitability (ROE) is controlled because a firm's financial performance may influence managerial reporting incentives. Managers of poorly performing firms may be more likely to manipulate earnings to conceal unfavorable results or satisfy stakeholder expectations. Conversely, highly profitable firms may have less incentive to engage in earnings management (Healy, 1985; Roychowdhury, 2006). Leverage (LEV) is included as firms with higher debt levels are often exposed to greater pressure from creditors and debt covenant requirements. Such pressure may motivate managers to manipulate reported earnings in order to maintain favorable financial positions or avoid covenant violations (Watts & Zimmerman, 1990).

Finally, ESG Disclosure (ESG) is incorporated as a governance-related control variable. Firms that voluntarily disclose environmental, social, and governance information are generally expected to exhibit greater transparency and accountability. Consequently, such firms may be less likely to engage in opportunistic earnings management practices. These control variables have been widely adopted in prior studies and are expected to capture firm-specific characteristics that may influence earnings management beyond the effects of board characteristics.

Research Framework

Based on Agency Theory, Resource Dependence Theory, and the empirical literature reviewed above, this study proposes a conceptual framework to examine the relationship between board characteristics and earnings management in Vietnamese listed firms. Specifically, board size, board independence, board gender diversity, board expertise, and board ownership are expected to reduce earnings management by strengthening board monitoring effectiveness and improving governance quality. In contrast, CEO duality is expected to increase earnings management due to the concentration of decision-making power and the weakening of board independence. In addition, several firm-specific factors, including firm size, profitability, leverage, and ESG disclosure, are incorporated as control variables to account for their potential influence on earnings management. The proposed research framework is presented in Figure 1

Figure 1. Conceptual Framework



Source: the authors

METHODOLOGY

Sample and Data Collection

This study uses panel data from non-financial firms listed on the Ho Chi Minh Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX) during the period 2015–2023. Financial institutions were excluded due to their distinct regulatory and reporting requirements. Firms with incomplete data related to board characteristics, financial statements, or earnings management estimation were also removed from the sample. The final sample consists of 3,310 firm-year observations. Data were collected from audited financial statements, annual reports, and corporate governance reports. Information on board characteristics was manually obtained from corporate governance disclosures, while financial data used to estimate AEM, and REM, and control variables were extracted from firms' financial statements. The period 2015–2023 provides a sufficiently long observation window to examine the relationship between board characteristics and earnings management in the Vietnamese context.

Variable Measurement

The variables used in this study are classified into three groups: dependent variables, independent variables, and control variables. Earnings management serves as the dependent variable and is measured using two proxies: AEM and REM. The independent variables include board size (BS), board independence (BI), board gender diversity (BG), CEO duality (BD), board expertise (BE), and board ownership (BO). Firm size (SIZE), profitability (ROE), leverage (LEV), and ESG disclosure (ESG) are incorporated as control variables. Following Dechow et al. (1995), AEM is estimated using the Modified Jones Model, while REM is measured based on the approach developed by Roychowdhury (2006). Employing both measures enables a more comprehensive assessment of earnings management behavior. Table 1 summarizes the definitions and measurements of all variables used in the study.

Table 1. Variable Definitions and Measurements

Variable	**Symbol**	**Measurement**	**Expected Sign**
Accrual-based Earnings Mngt	AEM	Modified Jones Model	Dependent
Real Earnings Management	REM	Roychowdhury (2006)	Dependent
Board Size	BS	Number of board directors	-
Board Independence	BI	Independent directors / Total directors	-
Board Gender Diversity	BG	Female directors / Total directors	-
CEO Duality	BD	1 if CEO = Chairperson, 0 otherwise	+
Board Expertise	BE	Financial experts / Total directors	-

Board Ownership	BO	Shares owned by directors / Total shares	-
ESG Disclosure	ESG	1 if ESG report disclosed, 0 otherwise	Control
Firm Size	SIZE	Natural logarithm of total assets	Control
Profitability	ROE	Net income / Equity	Control
Leverage	LEV	Total liabilities / Total assets	Control

Source: Authors' calculations

Research Models

To examine the impact of board characteristics on earnings management, two regression models are estimated. The first model investigates the relationship between board characteristics and AEM, while the second model examines their impact on REM.

Model 1: Accrual-Based Earnings Management

Regression Model 1: AEM = β0 + β1BSit + β2BIit + β3BGit + β4BDit + β5BEit + β6BOit + β7ESGit + β8SIZEit + β9ROEit + β10LEVit + εit

Model 2: Real Earnings Management

Regression Model 2: REM = β0 + β1BSit + β2BIit + β3BGit + β4BDit + β5BEit +β6BOit + β7ESGit + β8SIZEit + β9ROEit + β10LEVit + εit

The study employs panel data regression techniques. Pooled OLS, Fixed Effects Model (FEM), and Random Effects Model (RE) are initially estimated. The F-test and Hausman test are subsequently used to determine the most appropriate model specification. In addition, diagnostic tests are conducted to examine multicollinearity, heteroskedasticity, and autocorrelation.

RESULTS

Descriptive Statistics

Table 2 presents the descriptive statistics of the independent and control variables based on 3,310 firm-year observations. The average board size (BS) is 5.76 directors, ranging from 3 to 11 members, indicating variation in board structures among Vietnamese listed firms. Independent directors account for 23.84% of board membership on average (BI = 0.238), while female directors represent 14.49% (BG = 0.145), suggesting relatively low board independence and gender diversity. CEO duality (BD) has a mean value of 0.145, indicating that approximately 14.5% of the sampled firms combine the roles of CEO and board chairperson.

Regarding board expertise and ownership, directors with financial expertise account for 41.59% of board members on average (BE = 0.416). Board ownership (BO) averages 26.98%, indicating a relatively concentrated ownership structure among Vietnamese listed firms. For the control variables, the mean ROE is 11.50%, while the average leverage ratio (LEV) is 47.86%. In addition, 67.95% of firm-year observations disclose ESG-related information. Overall, the descriptive statistics reveal substantial variation across firms, supporting the suitability of the sample for subsequent regression analyses.

Table 2: Descriptive Statistics of Variables

Variables	Observations	Mean	Std. Dev.	Min	Max
BS	3310	5.761329	1.402567	3	11
BI	3310	.2383916	.1493528	0	.8333333
BG	3310	.1448594	.1697195	0	1
BD	3310	.144713	.3518644	0	1
BE	3310	.4158606	.2713249	0	1
BO	3310	26.97808	27.48344	0	98.8998
ROE	3310	.1150401	.10278	0	1.586895
LEV	3310	.4785728	.2167454	.0408163	.9029396
ESG	3310	.6794562	.4667561	0	1
SIZE	3310	3.163654	.7000274	1.380211	5.824553

Correlation Analysis

Tables 3 and 4 present the Pearson correlation matrices for the AEM and REM models, respectively. The correlation coefficients are generally low to moderate, indicating limited linear associations among the explanatory variables. The highest correlation coefficient is 0.4007, which is well below the threshold of 0.80 commonly used to indicate serious multicollinearity concerns. Therefore, multicollinearity is unlikely to affect the reliability of the regression results.

Table 3. Correlation Matrix (AEM Model)

Variable	AEM	ROE	LEV	SIZE	ESG	BS	BI	BG	BD	BE	BO
AEM	1.0000										
ROE	0.2915 (0.0000)	1.0000									
LEV	-0.1493	-0.0576	1.0000								

	(0.0000)	(0.0000)									
SIZE	-0.1787 (0.0000)	0.0725 (0.0000)	0.2853 (0.0000)	1.0000							
ESG	-0.0073 (0.6734)	-0.0136 (0.4324)	-0.0439 (0.0115)	0.0022 (0.8977)	1.0000						
BS	-0.0417 (0.0164)	0.0829 (0.0000)	0.0183 (0.2922)	0.2997 (0.0000)	-0.0523 (0.0026)	1.0000					
BI	-0.0058 (0.7374)	-0.0245 (0.1592)	-0.0571 (0.0010)	0.0442 (0.0109)	-0.0343 (0.0484)	-0.0146 (0.4007)	1.0000				
BG	0.0441 (0.0112)	0.0291 (0.0936)	-0.0990 (0.0000)	0.0064 (0.7146)	0.0239 (0.1690)	-0.0133 (0.4446)	0.0590 (0.0007)	1.0000			
BD	0.0409 (0.0185)	-0.0097 (0.5754)	0.0379 (0.0292)	-0.0180 (0.3080)	-0.0303 (0.0815)	-0.0255 (0.1421)	0.0330 (0.0575)	0.0372 (0.0322)	1.0000		
BE	0.0106 (0.3901)	0.0101 (0.5595)	-0.0076 (0.6666)	-0.0983 (0.0000)	-0.1027 (0.0000)	-0.0738 (0.0000)	0.1294 (0.0000)	0.1489 (0.0000)	0.0408 (0.0189)	1.0000	
BO	-0.0931 (0.5908)	0.0302 (0.0819)	0.0127 (0.5370)	0.0429 (0.0135)	-0.0689 (0.0001)	-0.0231 (0.1842)	0.0021 (0.9018)	0.0167 (0.3360)	0.0021 (0.9018)	0.0167 (0.3360)	1.0000

Table 4. Correlation Matrix (REM Model)

Variable	REM	ROE	LEV	SIZE	ESG	BS	BI	BG	BD	BE	BO
REM	1.0000										
ROE	-0.3329 0.0000	1.0000									
LEV	0.2348 0.0000	-0.0576 0.0009	1.0000								
SIZE	0.0514 0.0031	0.0725 0.0000	0.2853 0.0000	1.0000							
ESG	-0.0642 0.0002	0.0136 0.4324	-0.0439 0.0115	0.0022 0.8977	1.0000						
BS	-0.0810 0.0000	0.0829 0.0000	0.0183 0.2922	0.2997 0.0000	-0.0523 0.0026	1.0000					
BI	0.0423 0.0150	-0.0245 0.1592	-0.0571 0.0010	0.0442 0.0109	-0.0343 0.0484	-0.0146 0.4007	1.0000				

BG	-0.0136 0.4357	0.0291 0.0936	-0.0990 0.0000	0.0064 0.7146	0.0239 0.1690	-0.0133 0.4446	0.0590 0.0007	1.0000			
BD	0.0495 0.0095	-0.0097 0.5754	0.0379 0.0292	-0.0180 0.3008	-0.0303 0.0815	-0.0255 0.1421	0.0330 0.0575	0.0372 0.0322	1.0000		
BE	0.0106 0.5416	0.0101 0.5595	-0.0076 0.6606	0.0983 0.0000	-0.1027 0.0000	-0.0738 0.0000	0.1294 0.0000	0.1489 0.0000	0.0408 0.0189	1.0000	
BO	0.0256 0.1405	0.0302 0.0819	0.0107 0.5370	0.0429 0.0135	-0.0100 0.5635	0.0095 0.5847	-0.0689 0.0001	-0.0231 0.0001	0.0021 0.1842	0.0167 0.9018	1.0000

Regression Results

To examine the determinants of AEM, the study estimated Pooled OLS, Fixed Effects Model, and Random Effects Model. Based on the F-test and Hausman test results in table 5, FEM was selected as the most appropriate estimation method. Diagnostic tests further revealed the presence of heteroskedasticity and autocorrelation; therefore, robust standard errors and the Cochrane–Orcutt AR(1) procedure were applied to obtain reliable estimates.

Table 5. Model Selection Tests for the AEM Model

Model / Test	**Pooled OLS**	**FEM**	**RE Models**	**F-test**	**Hausman Test**
R^2	0.1342	0.1033 (within)	0.2695 (between)	–	–
Prob > F (F-test)	–	Significant	Not applicable	Prob > F = 0.0000	Prob > chi^2 = 0.0000
Conclusion	Not selected	Selected	Not selected	FEM > Pooled OLS	FEM > REM

Source: Authors' calculations

The regression results presented in Table 6 indicate that CEO duality (BD) is positively and significantly associated with AEM (β = 0.02053, $p < 0.05$), suggesting that firms in which the CEO simultaneously serves as board chair are more likely to engage in AEM. This finding supports H4 and is consistent with Agency Theory, which argues that the concentration of decision-making power may weaken board monitoring effectiveness and increase managerial discretion over financial reporting. Among the control variables, profitability (ROE) exhibits a positive and significant relationship with AEM (β = 0.49087, $p < 0.01$), indicating that more profitable firms tend to engage in higher levels of AEM. In contrast, leverage (LEV) (β = -0.07302, $p < 0.01$) and firm size (SIZE) (β = -0.03681, $p < 0.01$) show significant negative relationships with AEM, suggesting that larger firms and firms with higher leverage are less likely to engage in AEM. ESG disclosure (ESG) does not have a statistically significant effect on AEM.

Regarding board characteristics, board size (BS), board independence (BI), board gender diversity (BG), board financial expertise (BE), and board ownership (BO) do not exhibit statistically significant relationships with AEM. Therefore, H1, H2, H3, H5, and H6 are not supported. Overall, the findings indicate that CEO duality is the only board characteristic significantly associated with AEM among Vietnamese listed firms. In addition, firm-specific characteristics, particularly profitability, firm size, and leverage, play important roles in explaining earnings management behavior.

Table 6. Regression Results for the AEM Model

Variable	Coefficient	Standard Error	t-value	P>|t|	[95% Conf. Interval] Lower	[95% Conf. Interval] Upper
ROE	0.49087	0.02998	16.38	0.0000	0.43210	0.54965
LEV	-0.07302	0.01570	-4.65	0.0000	-0.10381	-0.04223
SIZE	-0.03681	0.00506	-7.27	0.0000	-0.04673	-0.02689
ESG	0.00365	0.00695	0.53	0.5990	-0.00997	0.01728
BS	-0.00105	0.00232	-0.45	0.6510	-0.00559	0.00350
BI	0.02049	0.02136	-0.96	0.3370	-0.06237	0.06237
BG	0.02221	0.01893	1.17	0.2410	-0.01490	0.05932
BD	0.02053	0.00917	2.24	0.0250	0.00256	0.03850
BE	0.00346	0.01217	0.28	0.7760	-0.02041	0.02734
BO	-0.00005	0.00012	-0.46	0.6450	-0.00028	0.00017
_cons	0.17757	0.02019	8.80	0.0000	0.13799	0.21716

Source: Authors' calculations

For the REM model, Pooled OLS, Fixed Effects Model (FEM), and Random Effects Model were estimated to identify the appropriate model. The F-test and Hausman test in table 7 result shows that FEM is more suitable than Pooled OLS, while the Hausman test also supports the use of FEM over Random Effects Model. After selecting FEM, diagnostic tests reveal the presence of heteroskedasticity and autocorrelation. Therefore, robust standard errors and the Cochrane–Orcutt AR(1) procedure were applied to improve the reliability of the estimates.

Table 7. Model Selection Tests for the REM Model

Model Selection Test for REM	Pooled OLS	FEM	RE Model	F-test	Hausman Test
R^2	0.1693	0.0414 (within)	0.1614 (overall)	–	–
Prob > F / Prob > χ^2	–	0.0000	–	0.0000	0.0000
Decision	Not selected	Selected	Not selected	FEM preferred over Pooled OLS	FEM preferred over RE

Source: Authors' calculations

The regression results presented in Table 8 show that profitability (ROE) is negatively and significantly associated with REM (β = -0.83933, $p < 0.01$), suggesting that firms with stronger financial performance are less likely to engage in REM. In contrast, leverage (LEV) exhibits a positive and significant relationship with REM (β = 0.31255, $p < 0.01$), indicating that highly leveraged firms may have stronger incentives to manipulate real operating activities in order to achieve desired financial outcomes. Among the governance variables, board size (BS) is negatively and significantly associated with REM (β = -0.01681, $p < 0.01$). This finding suggests that larger boards may enhance monitoring effectiveness and reduce managerial opportunities to engage in REM. Therefore, H1 is supported in the REM model. ESG disclosure (ESG) also shows a weak negative relationship with REM at the 10% significance level (β = -0.03296, $p < 0.10$), indicating that firms with greater transparency may be less likely to engage in REM.

However, board independence (BI), board gender diversity (BG), CEO duality (BD), board financial expertise (BE), and board ownership (BO) do not exhibit statistically significant relationships with REM. Therefore, H2, H3, H4, H5, and H6 are not supported in the REM model. Overall, the findings indicate that REM is influenced primarily by firm-specific characteristics, particularly profitability and leverage. Among the examined board characteristics, only board size appears to play a significant role in constraining REM among Vietnamese listed firms.

Table 8. Regression Results for the REM Model

Variable	Coefficient	Standard Error	t-value	P>|t|	[95% Conf.	[95% Conf. Interv

					Interval] Lower	al] Upper
ROE	-0,83933	0,0652	-12,88	0,000	-0,9671	-0,7116
LEV	0,31255	0,0401	7,79	0,000	0,2339	0,3912
SIZE	-0,02192	0,0133	1,65	0,100	-0,0042	0,0480
ESG	-0,03296	0,0180	-1,83	0,067	-0,0682	0,0023
BS	-0,01681	0,0052	-3,21	0,001	-0,0271	-0,0065
BI	0,05577	0,0481	1,16	0,247	-0,0386	0,1502
BG	0,04547	0,0462	0,98	0,326	-0,0452	0,1362
BD	0,02011	0,0215	0,94	0,350	-0,0220	0,0623
BE	0,00790	0,0300	0,26	0,793	-0,0510	0,0668
BO	0,00042	0,0003	1,48	0,139	-0,0001	0,0010
_cons	-0,22670	0,0512	-4,43	0,000	-0,3270	-0,1264

Source: Authors' calculations

DISCUSSION

The findings suggest that board characteristics play a relatively limited role in constraining earnings management among Vietnamese listed firms. Among the governance variables examined, board size is the only board characteristic that exhibits a significant relationship with REM. The negative coefficient indicates that larger boards may enhance monitoring effectiveness and reduce managers' ability to manipulate real operating activities. This finding supports H1 in the REM model and is consistent with the view that larger boards provide greater oversight capacity and a broader range of expertise. However, board size does not significantly affect AEM, suggesting that its monitoring role may be more effective in constraining operational decisions than accounting-based earnings manipulation.

The results further indicate that board independence, board gender diversity, board financial expertise, and board ownership do not significantly affect either AEM or REM. These findings imply that the formal presence of independent directors, female directors, financially qualified directors, or director ownership may not be sufficient to effectively constrain earnings management in the Vietnamese context. Rather, the effectiveness of these governance mechanisms may depend on the actual influence, experience, and engagement of board members in the monitoring process. This may partly explain why several governance attributes that are expected to reduce earnings management under Agency Theory do not exhibit significant effects in the empirical analysis.

Regarding CEO duality, the results reveal a positive and significant relationship with AEM, supporting H4. This finding suggests that the concentration of decision-making authority in a single individual may weaken board oversight and increase managerial discretion over financial reporting. The result is consistent with Agency Theory, which emphasizes the importance of separating management and monitoring functions to reduce opportunistic behavior. However, CEO duality does not significantly influence REM, indicating that its effect may be more relevant to accounting-based reporting decisions than to real operational activities.

Among the control variables, profitability and leverage emerge as important determinants of earnings management. Firms with higher profitability tend to engage in higher levels of AEM but lower levels of REM, suggesting that managers may prefer accounting-based adjustments when financial performance is strong while relying less on operational manipulation. In contrast, leverage is negatively associated with AEM but positively associated with REM, indicating that highly leveraged firms may avoid accrual manipulation due to creditor monitoring while shifting toward REM practices. Firm size also exhibits a negative relationship with AEM, suggesting that larger firms may face stronger external monitoring and greater scrutiny from investors, auditors, and regulators.

Finally, ESG disclosure does not significantly affect AEM but shows a weak negative relationship with REM. This finding suggests that greater transparency through ESG disclosure may contribute to reducing REM, although the effect remains relatively limited. One possible explanation is that ESG reporting practices in Vietnam are still evolving and may not yet be sufficiently developed to function as an effective governance mechanism for constraining earnings management behavior.

CONCLUSIONS AND RECOMMENDATIONS

This study examines the impact of board characteristics on earnings management among Vietnamese listed firms using two commonly adopted measures of earnings management, namely AEM and REM. Using panel data from Vietnamese listed firms over the period 2015–2023 and applying fixed-effects regression models, the findings indicate that the influence of board characteristics on earnings management is relatively limited.

Among the board characteristics examined, CEO duality is positively associated with AEM, suggesting that the concentration of decision-making power may increase managers’ ability to engage in accrual-based earnings manipulation. In contrast, board size is negatively associated with REM, indicating that larger boards may enhance monitoring effectiveness and reduce managers’ ability to manipulate real operating activities. However, board independence, board gender diversity, board financial expertise, and board ownership do not exhibit statistically significant effects on either AEM or REM.

Regarding the control variables, profitability, leverage, and firm size are identified as important determinants of earnings management, although their effects differ across AEM and REM. In addition, ESG disclosure does not significantly affect AEM and only provides limited evidence of reducing REM. These findings suggest that traditional board characteristics alone may not be sufficient to effectively constrain earnings management practices in Vietnamese listed firms.

This study contributes to the literature on corporate governance and earnings management by providing empirical evidence from an emerging market context and by simultaneously examining both accrual-based and REM. The findings highlight that different board characteristics may influence different forms of earnings management and suggest that strengthening governance effectiveness requires more than merely complying with formal board structure requirements.

Implications

The findings provide several implications for regulators and listed firms in Vietnam. First, the positive relationship between CEO duality and AEM suggests that regulators should continue strengthening corporate governance practices that enhance board independence and oversight. Encouraging the separation of the roles of Chief Executive Officer and Chairperson of the Board may help reduce the concentration of decision-making power and limit opportunities for accrual-based earnings manipulation.

Second, the negative association between board size and REM indicates that board monitoring remains an important governance mechanism. While larger boards do not necessarily improve all aspects of financial reporting quality, they may contribute to reducing managers' ability to engage in REM. Therefore, firms should focus not only on board composition but also on improving board effectiveness, participation, and monitoring capacity.

Third, the significant effects of profitability and leverage suggest that firm-specific financial conditions play an important role in shaping earnings management behavior. Regulators, investors, and auditors should therefore pay closer attention to firms experiencing strong performance pressures or high debt levels, as these conditions may create incentives for earnings management through different channels.

Finally, although ESG disclosure does not significantly affect AEM and only shows limited evidence of reducing REM, the findings suggest that greater transparency may contribute to improving reporting quality. Continued efforts to strengthen ESG reporting standards and disclosure practices may therefore enhance corporate accountability and support the long-term development of Vietnam's capital market.

FURTHER STUDY

This study has several limitations that should be acknowledged. First, the sample consists only of Vietnamese listed firms; therefore, the findings may not be fully generalizable to unlisted firms or companies operating in other institutional settings. Second, the study focuses on selected board characteristics and ESG disclosure as determinants of earnings management. Other governance mechanisms, such as audit committee characteristics, ownership concentration, institutional ownership, or board meeting frequency, were not included in the analysis. Third, the measurement of ESG disclosure is constrained by the availability and quality of publicly disclosed information and may not fully capture firms' actual ESG performance.

Future studies may extend the analysis to firms operating in different countries or institutional environments to improve the generalizability of the findings. Additional governance variables and alternative ESG measures could also be incorporated to provide a more comprehensive understanding of the factors influencing earnings management. Furthermore, future research may investigate whether ESG practices moderate or mediate the relationship between corporate governance and earnings management, thereby providing deeper insights into the role of sustainability initiatives in enhancing financial reporting quality.

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