“Board characteristics, ownership structure, and their effects on real earnings management: Evidence from Vietnamese listed firms”

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BOARD CHARACTERISTICS, OWNERSHIP STRUCTURE, AND THEIR EFFECTS ON REAL EARNINGS MANAGEMENT: EVIDENCE FROM VIETNAMESE LISTED FIRMS

Abstract

This study investigates the relevance of corporate governance mechanisms and ownership structure in shaping real earnings management behavior in an emerging market context. The objective of this investigation is to evaluate whether board characteristics and ownership types influence firms' engagement in real earnings management. A balanced panel dataset comprising 434 non-financial firms listed in Vietnam over the period 2020–2024, totaling 2,170 firm-year observations, is utilized. The empirical analysis employs ordinary least squares, fixed-effects, random-effects, and feasible generalized least squares models to address heteroskedasticity and serial correlation, thereby ensuring robust estimates of the relationships. The results reveal systematic and statistically significant associations between governance attributes and real earnings management. Notably, larger boards are associated with lower levels of real earnings management, suggesting that expanded board structures enhance monitoring capacity and curb opportunistic managerial behavior. Additionally, institutional ownership and state ownership exhibit an inverse relationship with real earnings management, implying that these ownership structures bolster external oversight and discipline managerial discretion. Conversely, increased board independence, financial expertise among board members, and managerial ownership are associated with greater engagement in real earnings management, suggesting that formal governance frameworks do not invariably translate into effective substantive monitoring in emerging markets. Overall, these findings support the view that governance and ownership mechanisms operate asymmetrically in emerging markets, underscoring that strengthening the effectiveness of monitoring structures – beyond their mere formal adoption – is vital to improving financial reporting quality and promoting the sustainability of corporate performance.

Keywords earnings management, governance, ownership, board, Vietnam

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INTRODUCTION

Earnings management has become a key concern in accounting and finance because it directly impacts the credibility of financial reports and the efficiency of capital markets, especially when firms aim to meet financial targets and shape market perceptions. Traditionally, accrual-based earnings management (AEM) refers to managers' choices of estimates and accounting policies to modify reported earnings (Healy & Wahlen, 1999). Unlike AEM, which functions through accounting entries, real earnings management (REM) involves changing actual operating activities to meet reporting goals, including sales acceleration, overproduction, and discretionary cost reduction (Roychowdhury,

2006; Cohen & Zarowin, 2010; Tuan et al., 2023). Because REM directly alters real business decisions, it raises more complex concerns regarding the integrity of corporate reporting and long-term firm performance.

Corporate governance (CG) and ownership structure are key in shaping incentives and opportunities for engaging in REM. Different ownership types, such as state, family, foreign, and institutional ownership, create diverse incentive structures that influence managerial behavior and strategic decisions in unique ways (Malik, 2015; Nia et al., 2017; Dong et al., 2020). Governance mechanisms, including board characteristics, audit committees, and legal frameworks, aim to oversee management and minimize agency conflicts, but their effectiveness in limiting REM remains empirically debated (Chouaibi et al., 2018). International evidence is mixed. In some countries, larger boards, greater board independence, and the presence of institutional owners are linked to reduced REM (Chouaibi et al., 2018; Hsu & Wen, 2015; Malik, 2015), whereas in other contexts, findings show opposite or insignificant effects, emphasizing the importance of institutional context, capital-market pressures, and varying incentives among ownership groups (Cohen et al., 2008; Zang, 2012). During crises or systemic shocks like the COVID-19 pandemic, firms with more leveraged ownership structures tend to display higher levels of earnings manipulation, further complicating the relationship between governance and REM.

In Vietnam, although research on corporate governance and earnings management has expanded, the empirical literature remains heavily focused on AEM, while systematic evidence on REM is still limited. Recent studies indicate that governance factors such as board size, independence, professional qualifications, CEO duality, and gender diversity are linked to REM, but their findings are mixed and inconclusive (Tuan & Dung, 2024; Anh & Khuong, 2022). Likewise, research on ownership structure and REM remains fragmented, with only a few studies examining institutional and state ownership in relation to REM (Nguyen et al., 2024) or AEM (Tran & Dang, 2021).

These inconsistencies highlight a broader unresolved scientific issue: the uncertainty over whether corporate governance mechanisms and ownership structures serve as effective disciplinary tools or simply as formal compliance frameworks, especially in emerging markets with concentrated ownership, evolving legal systems, and transitional institutional settings. Specifically, previous research has yet to offer a clear explanation of how state, institutional, and managerial ownership interact with board monitoring mechanisms to influence actual earnings management under these conditions. This unresolved issue provides the conceptual and empirical backdrop for the current study.

1. LITERATURE REVIEW AND RESEARCH HYPOTHESES

The body of literature concerning earnings management has significantly advanced over the past thirty years, mirroring heightened concerns regarding the credibility of financial disclosures and the effectiveness of capital markets. Within this realm of research, REM has garnered increasing scholarly interest, given that it entails direct manipulation of firms' operational choices rather than solely accounting-based modifications.

REM is understood as managers' adjustments to actual business strategies, such as accelerating sales to boost revenue, overproducing to increase inventories, and deferring necessary expenditures to meet reporting objectives (Healy & Wahlen, 1999; Roychowdhury, 2006; Cohen & Zarowin, 2010). Unlike accrual-based earnings management, REM is harder to detect and is linked to higher long-term operating costs and potential declines in firm value (Gunny, 2010; Cohen & Zarowin, 2010; Habib et al., 2022).

From a theoretical perspective, agency theory serves as the primary framework for comprehending the motivations behind earnings manipula-

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tion. The division between ownership and control engenders issues of information asymmetry and moral hazard, rendering earnings management a key manifestation of principal–agent conflicts (Waweru & Prot, 2018). Managers may resort to earnings manipulation to serve private interests, thereby risking the erosion of shareholder wealth and compromising long-term performance. Additionally, empirical studies indicate that firms engaging extensively in REM tend to experience a decline in future operational performance (Al-Shattarat et al., 2022). These theoretical and empirical findings collectively position REM as both a governance concern and a performance risk.

Corporate governance mechanisms, especially the board of directors and ownership structure, aim to lower agency costs by enhancing monitoring through aligned interests among board members and between the board and stakeholders. This alignment helps limit opportunities for REM (Denis & McConnell, 2003; Ge & Kim, 2014; Hsu & Wen, 2015). With formal authority, the board can supervise managerial actions, assess management performance, and implement suitable reward or discipline measures. Jensen and Meckling (1976) highlight that boards can effectively oversee agency issues and reduce conflicts caused by the separation of management and ownership. Later research indicates that board size and independence are key factors in controlling agency costs (Lasfer, 2006), while a firm's ownership structure greatly influences control mechanisms (Abdou et al., 2021; Siregar & Utama, 2008). When monitoring systems are weak, managers are incentivized to use REM to achieve profit goals, avoid contractual breaches, or meet market expectations (Jensen & Meckling, 1976; Healy & Wahlen, 1999).

Empirical findings, however, are inconsistent. A series of studies demonstrates that enhanced governance mechanisms – such as optimal board size, greater board independence, and increased institutional ownership – are correlated with reduced levels of REM (Hsu & Wen, 2015; Malik, 2015). Concurrently, other research reports opposite or statistically insignificant effects, thereby emphasizing that institutional environments, market discipline, and diverse incentives across ownership groups can impact the efficacy of governance tools (Nia et al., 2017; Dong et al., 2020; Habib et al., 2022). For example, evidence from MENA countries suggests that larger boards and higher levels of board independence may be linked to increased engagement in REM rather than its mitigation (Saleh et al., 2022). These divergent findings imply that governance mechanisms should not be considered in isolation from the institutional context.

Within the realm of board characteristics, a significant body of research demonstrates that board structure influences managerial behavior. Larger boards are associated with enhanced monitoring capabilities and contribute to a reduction in actual earnings management across various institutional contexts (Hsu & Wen, 2015; Chouaibi et al., 2018; Susanto & Pradipta, 2016). Concurrently, the role of board independence has been extensively examined, with evidence suggesting both negative and positive relationships with REM, contingent upon market maturity and enforcement strength (Osma, 2008; Kapoor & Goel, 2019; Saleh et al., 2022). Furthermore, board expertise, particularly in accounting and finance, is correlated with monitoring efficacy; however, under conditions of weak institutional enforcement, such expertise may be associated with increased engagement in REM (Chouaibi et al., 2018; Habib et al., 2022; Asmaranti et al., 2024).

Concerning ownership structure, the available literature indicates intricate and frequent nonlinear relationships between various ownership types and REM. Managerial ownership has been linked to both alignment and entrenchment effects, with empirical findings varying across different national contexts (Attia & Mehafdi, 2023). Elevated managerial ownership may entrench managers and facilitate the extraction of private benefits (Fama & Jensen, 1983; Aygun et al., 2014), whereas lower ownership levels might incentivize earnings manipulation to enhance compensation and alleviate financing constraints (Jensen & Meckling, 1976). Empirical evidence remains inconsistent; some studies demonstrate a negative correlation between managerial ownership and REM (Dong et al., 2020), while others report no statistically significant relationship (Nia et al., 2017).

Institutional ownership is frequently regarded as an effective mechanism for external oversight.

Firms possessing higher levels of institutional ownership are generally anticipated to engage in reduced REM due to enhanced supervisory capabilities and increased demand for transparency (Malik, 2015; Nia et al., 2017). Empirical evidence indicates that institutional investors have the capacity to discipline managerial manipulation of operational activities (Zang, 2012; Saleh et al., 2022). Nevertheless, contradictory findings suggest that institutional investors may exert pressure on managers to achieve short-term earnings targets, thereby potentially fostering REM indirectly (Cornett et al., 2008; Mellado & Saona, 2020).

State ownership constitutes a distinctive governance mechanism within emerging markets; however, empirical evidence remains limited, and findings are mixed. Some studies indicate that increased state ownership correlates with higher levels of earnings management, attributable to political motives and weak enforcement environments (Ding et al., 2007; Wang & Yung, 2011). Conversely, other research suggests that state ownership can augment monitoring and reduce earnings manipulation through protective strategies and regulatory oversight (Tran & Dang, 2021; Dong et al., 2020; Chen & Yuan, 2004).

Overall, the existing literature demonstrates highly diverse and context-dependent relationships between board characteristics, ownership structure, and REM, with no definitive conclusions across different institutional contexts. These heterogeneous findings imply that the effectiveness of governance mechanisms in oversight cannot be presumed in advance but must be empirically validated within particular market environments.

Taken together, previous theoretical and empirical studies indicate that the interaction between boards and ownership structures is a key factor influencing REM behavior. However, the direction and strength of these relationships remain unclear, especially in emerging markets.

Accordingly, this study aims to examine how board characteristics (size, independence, and expertise) and ownership structure (managerial, institutional, and state ownership) impact REM among non-financial firms listed in Vietnam.

Research hypotheses are as follows:

H1: Board size is negatively related to the level of REM.

H2: Board independence is negatively related to the level of REM.

H3: Board expertise is negatively related to the level of REM.

H4: Managerial ownership is negatively related to the level of REM.

H5: Institutional ownership is negatively related to the level of REM.

H6: State ownership is negatively related to the level of REM.

2. RESEARCH METHODOLOGY

This study employs a quantitative panel data design. The research sample consists of non-financial firms listed at two Vietnamese stock exchanges from 2020 to 2024. Financial institutions such as banks, securities companies, insurance firms, and investment funds are excluded due to their specific prudential regulations, capital structures, and accounting regimes, which are not comparable to those of non-financial firms. Firm-level data are manually collected from audited financial statements and annual reports. After screening and excluding incomplete observations, the final balanced panel includes 434 firms, resulting in 2,170 firm-year observations. To minimize the influence of extreme values, all continuous variables are winsorized at the 1st and 99th percentiles.

Dependent variable (REM). Prior research documents a gradual shift from accrual-based earnings management (AEM) toward real activities manipulation (REM), as AEM is more readily scrutinized by regulators and auditors than REM (Cohen & Zarowin, 2010; Zang, 2012). Following Roychowdhury (2006), Attia and Mehafdi (2023), and Tuan and Dung (2024), we estimate REM in three steps:

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Step 1 (abnormal operating cash flows, REM_CFO):

$$\frac{CFO_{it}}{A_{i,t-1}} = \alpha\left(\frac{1}{A_{i,t-1}}\right) + \beta_1\left(\frac{SALES_{it}}{A_{i,t-1}}\right) + \beta_2\left(\frac{\Delta SALES_{it}}{A_{i,t-1}}\right) + \varepsilon_{it}. \quad (1)$$

Step 2 (abnormal discretionary expenses, REM_DISC):

$$\frac{DISC_{it}}{A_{i,t-1}} = \alpha\left(\frac{1}{A_{i,t-1}}\right) + \beta_1\left(\frac{SALES_{i,t-1}}{A_{i,t-1}}\right) + \varepsilon_{it}. \quad (2)$$

Step 3 (abnormal production costs, REM_PROD):

$$\frac{PROD_{it}}{A_{i,t-1}} = \alpha\left(\frac{1}{A_{i,t-1}}\right) + \beta_1\left(\frac{SALES_{it}}{A_{i,t-1}}\right) + \beta_2\left(\frac{\Delta SALES_{it}}{A_{i,t-1}}\right) + \beta_3\left(\frac{\Delta SALES_{i,t-1}}{A_{i,t-1}}\right) + \varepsilon_{it}. \quad (3)$$

Overall, REM is then:

$$REM = (-1)\cdot REM\_CFO + REM\_PROD + (-1)\cdot REM\_DISC, \quad (4)$$

where CFO_{it} is operating cash flow, $DISC_{it}$ is selling, general, and administrative expenses, $PROD_{it}$ is cost of goods sold plus the change in net inventory, $A_{i,t-1}$ is total assets at t–1, $SALES$ denotes sales, and ΔSALES is the change in sales.

Explanatory variables (governance and ownership). Board characteristics include board size (BS), board independence (BI), and board expertise (BE), measured following Malik (2015), Chouaibi et al. (2018), and Rajeevan and Ajward (2020). The ownership structure comprises managerial ownership (MA), institutional ownership (IN), and state ownership (ST), as measured with reference to Malik (2015), Nia et al. (2017), Dong et al. (2020), and Tran and Dang (2021).

Controls. We include firm size (FSI), audit quality (BIG4), profitability (ROA), and financial leverage (LEV) as controls, consistent with Hsu and Wen (2015), Malik (2015), and Rajeevan and Ajward (2020), and adapt them to the Vietnamese context.

Empirical model. The baseline specification assessing the effect of governance and ownership on REM is:

$$REM_{it} = \alpha + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BE_{it} + \beta_4 MA_{it} + \beta_5 IN_{it} + \beta_6 ST_{it} + \gamma' X_{it} + \varepsilon_{it}, \quad (5)$$

where X_{it} is the vector of control variables.

Table 1. Variable definitions and measurement

Variable	Symbol	Measurement	References
Dependent variable			
Real earnings management	REM	Constructed from abnormal CFO, discretionary expenses, and production costs following the Roychowdhury (2006) framework	Malik (2015); Hsu & Wen (2015); Rajeevan & Ajward (2020)
Independent variables			
Board size	BS	Number of directors on the board	Chouaibi et al. (2018); Rajeevan & Ajward (2020)
Board independence	BI	Proportion of independent directors on the board	Chouaibi et al. (2018); Malik (2015)
Board expertise	BE	Number of directors with accounting/finance expertise	Rajeevan & Ajward (2020)
Managerial ownership	MA	Percentage of shares held by the board and executive management over total shares	Dong et al. (2020); Nia et al. (2017)
Institutional ownership	IN	Percentage of shares held by institutional investors over total shares	Malik (2015); Nia et al. (2017)
State ownership	ST	Percentage of shares held by the state over total shares	Tran & Dang (2021)
Control variables			
Firm size	FSI	Natural logarithm of total assets	Hsu & Wen (2015)
Audit quality (Big 4)	BIG4	Indicator equal to 1 if audited by a Big 4 firm, 0 otherwise	Rajeevan & Ajward (2020)
Return on assets	ROA	Net income/Total assets	Hsu & Wen (2015); Malik (2015)
Financial leverage	LEV	Total liabilities /Total assets	Hsu & Wen (2015); Malik (2015); Rajeevan & Ajward (2020)

Estimation strategy. We proceed in three steps. First, we estimate pooled OLS and then compare fixed-effects (FE) and random-effects (RE) panel models using the Hausman test to select the appropriate panel specification. Second, we test for heteroskedasticity and first-order serial correlation in panel residuals using the Modified Wald and Wooldridge tests, respectively. Third, given evidence of heteroskedasticity and AR (1) serial correlation, we estimate the model by feasible generalized least squares (FGLS) to obtain consistent and efficient estimates.

Measurement details. Variable definitions and sources are summarized in Table 1.

3. RESULTS

Table 2 presents the descriptive statistics for all variables utilized in the analysis. The REM index has a mean of –0.206 and a standard deviation of 0.363, with values spanning from –2.052 to 3.449. This distribution demonstrates substantial cross-sectional variation in REM among firms and implies that, on average, firms tend to implement income-decreasing real activities.

With regard to board characteristics, the average board size (BS) is 5.498 members (SD = 1.353), ranging from 2 to 11. The measure of board independence (BI) has a mean value of 0.731 (SD = 0.163), indicating that approximately 73.1% of board seats are occupied by independent directors on average. The level of board expertise (BE) has a mean of 0.143 (SD = 0.382), suggesting that the number of directors with backgrounds in accounting and finance remains limited across numerous organizations.

Concerning ownership structure, institutional ownership (IN) constitutes the most significant component, with an average of 0.559, followed by state ownership (ST) with an average of 0.196, whereas managerial ownership (MA) is the smallest, with an average of 0.130. These statistics reflect a diverse distribution of control rights among ownership groups. Regarding the control variables, firm size (FSI) has an average of 27.965 (standard deviation = 1.736), Big 4 auditing (BIG4) averages 0.308, return on assets (ROA) has an average of 0.056 (standard deviation = 0.071), and financial leverage (LEV) averages 0.461 (standard deviation = 0.211).

Table 3 presents the correlation matrix among the REM index, board of directors' variables, ownership structure variables, and control variables. Overall, the absolute values of the pairwise correlations are indicative of low to moderate relationships. The strongest correlation among the explanatory variables is observed between institutional ownership (IN) and state ownership (ST), with a coefficient of 0.461 ($p < 0.01$), which remains comfortably below the conventional threshold indicative of problematic multicollinearity (approximately 0.80).

Initially, we estimate pooled Ordinary Least Squares (OLS) and conduct White's test, which indicates the presence of heteroskedasticity (Prob > F = 0.000 < 0.05). Consequently, the reliability of the OLS estimates may be compromised. Accordingly, we proceed with both the fixed-effects (FE) and random-effects (RE) models. The Hausman test produces Prob > χ^2 = 0.0000 < 0.05, suggesting that the fixed-effects model is preferable to the random-effects model. Nonetheless, diagnostic

Table 2. Descriptive statistics of study variables

Variable	Observations	Mean	Std. dev.	Min	Max
REM	2,170	–0.206	0.363	–2.052	3.449
BS	2,170	5.498	1.353	2.000	11.000
BI	2,170	0.731	0.163	0.200	1.000
BE	2,170	0.143	0.382	0.000	2.000
MA	2,170	0.130	0.173	0.000	0.954
IN	2,170	0.559	0.232	0.000	0.9997
ST	2,170	0.196	0.277	0.000	0.993
FSI	2,170	27.965	1.736	23.603	34.360
BIG4	2,170	0.308	0.462	0.000	1.000
ROA	2,170	0.056	0.071	–0.302	0.603
LEV	2,170	0.461	0.211	0.013	1.295

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Table 3. Correlation matrix of study variables

	REM	BS	BI	BE	MA	IN	ST	FSI	BIG4	ROA	LEV
REM	1.000										
BS	−0.130***	1.000									
BI	0.037*	0.086***	1.000								
BE	0.035	0.091***	−0.017	1.000							
MA	0.095***	0.089***	−0.103***	0.010	1.000						
IN	−0.168***	−0.033	0.041*	0.043	−0.094***	1.000					
ST	−0.159***	−0.018	−0.101***	0.054**	−0.334***	0.461***	1.000				
FSI	0.107***	0.354***	0.056***	−0.004	−0.086***	−0.118***	−0.030	1.000			
BIG4	−0.062***	0.164***	0.059***	−0.012	−0.165***	0.112***	−0.052**	0.440***	1.000		
ROA	−0.454***	0.084***	−0.066***	−0.020	−0.038*	0.126***	0.078***	−0.087***	0.072***	1.000	
LEV	0.198***	0.046**	−0.024	−0.031	0.022	−0.080***	−0.015	0.364***	0.067***	−0.392***	1.000

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

evaluations of the FE model disclose heteroskedasticity (Prob > χ^2 = 0.0000) and first-order autocorrelation (Prob > F = 0.0001). Therefore, feasible generalized least squares (FGLS) is employed as an appropriate estimation technique to address heteroskedasticity and autocorrelation. The outcomes derived from pooled OLS, FE, RE, and FGLS analyses are detailed in Table 4.

Table 4. Estimation results

Variables	Pool OLS	FE	RE	FGLS
BS	−0.041***	0.007	−0.022***	−0.023***
	(−7.55)	(0.73)	(−3.18)	(−8.57)
BI	0.043	−0.013	0.020	0.073***
	(1.00)	(−0.23)	(0.43)	(3.58)
BE	0.045**	0.032	0.036*	0.020**
	(2.51)	(1.30)	(1.76)	(2.06)
MA	0.136***	−0.136**	0.022	0.043**
	(3.14)	(−1.94)	(0.41)	(2.15)
IN	−0.088**	−0.004	−0.070**	−0.059***
	(−2.56)	(−0.07)	(−1.58)	(−3.40)
ST	−0.106***	0.079	−0.097**	−0.054***
	(−3.53)	(1.08)	(−2.33)	(−3.81)
FSI	0.032***	0.164***	0.027***	0.025***
	(6.39)	(6.08)	(3.46)	(10.09)
BIG4	−0.048***	0.034	−0.033	−0.034***
	(−2.82)	(1.00)	(−1.45)	(−4.12)
ROA	−2.097***	−1.436***	−1.632***	−1.961***
	(−19.9)	(−11.89)	(−15.07)	(−33.88)
LE	−0.022	0.313***	0.166***	0.034*
	(−0.59)	(3.75)	(3.22)	(1.75)
_cons	−0.719***	−4.909***	−0.779***	−0.679***
	(−5.39)	(−6.58)	(−3.73)	(−10.26)
N	2,170	2,170	2,170	2,170
R−sq	0.255	0.120		

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

The Wald χ^2 test indicates that the model is collectively significant (Prob > χ^2 = 0.000). Variance inflation factors range from 1.02 to 1.68 (average 1.31), suggesting that severe multicollinearity is unlikely. The FGLS estimates (Table 4) demonstrate that all six independent variables within the research model are associated with REM at conventional significance levels (1%–5%), specifically:

Focusing on the FGLS results, all six primary explanatory variables demonstrate a statistically significant relationship with REM at conventional significance levels (1%–5%). Regarding board characteristics, board size (BS) exhibits a negative and statistically significant coefficient (–0.023; $p < 0.01$). This finding supports H1, which posits that larger boards are associated with lower levels of REM. Conversely, board independence (BI) presents a positive and statistically significant coefficient (0.073; $p < 0.01$), and board expertise (BE) also indicates a positive and significant coefficient (0.020; $p < 0.05$). These results do not corroborate H2 and H3, which hypothesize negative relationships between board independence, board expertise, and REM.

In relation to ownership structures, institutional ownership (IN) exhibits a negative and statistically significant correlation with REM (coefficient –0.059; $p < 0.01$). Similarly, state ownership (ST) also demonstrates a negative and significant coefficient (–0.054; $p < 0.01$). These outcomes are consistent with hypotheses H5 and H6, which propose that both institutional and state ownership reduce REM. Conversely, managerial ownership (MA) presents a positive and statistically significant coefficient (0.043; $p < 0.05$), suggesting that increased managerial ownership is associated with elevated levels of REM; consequently, hypothesis H4, which posited a negative relationship, is not supported.

Concerning the control variables, firm size (FSI) exhibits a positive and statistically significant association with REM (0.025; $p < 0.01$), while financial leverage (LEV) is also positively correlated with REM (0.034; $p < 0.10$). Conversely, the presence of Big 4 auditing (BIG4) is negatively and significantly related to REM (–0.034; $p < 0.01$), and return on assets (ROA) demonstrates a negative and highly significant coefficient (–1.961; $p < 0.01$). Overall, the FGLS results clearly demonstrate the direction and statistical significance of the relationships articulated in hypotheses H1–H6 and affirm the significance of the control variables in accounting for the variability in REM.

4. DISCUSSION

The findings provide important insights into the role of corporate governance and ownership structure in shaping REM in an emerging market setting. The evidence that board size is associated with lower levels of REM is consistent with agency theory, which emphasizes the monitoring role of boards in mitigating managerial opportunism arising from the separation of ownership and control (Jensen & Meckling, 1976). This result aligns with empirical evidence from China, Tunisia, and Indonesia, where larger boards tend to enhance supervisory capacity and reduce real activities manipulation (Hsu & Wen, 2015; Chouaibi et al., 2018; Susanto & Pradipta, 2016). In the Vietnamese context, this suggests that board expansion, when it strengthens functional monitoring rather than symbolic compliance, can contribute to more effective oversight of managerial behavior.

In contrast, the positive association observed between board independence and REM diverges from the traditional expectation that independent directors enhance monitoring quality. This finding is inconsistent with evidence from developed markets, where board independence tends to constrain earnings manipulation (Osma, 2008; Chouaibi et al., 2018), but it is consistent with research in emerging markets that highlights the limitations of formal governance structures under weak enforcement environments (Habib et al., 2022). One plausible interpretation is that "formal independence" does not necessarily translate into substantive independence when access to information, professional capacity, and time commitments are constrained. This supports arguments that the effectiveness of independent directors depends not only on their legal status but also on institutional quality and enforcement mechanisms (Asmaranti et al., 2024).

Similarly, the positive relationship between board expertise and REM challenges the conventional view that financial expertise enhances monitoring effectiveness. Prior studies in more developed governance environments report that directors with accounting and finance expertise are better positioned to detect and constrain earnings manipulation (Chouaibi et al., 2018; Habib et al., 2022). In emerging markets, however, expertise may facilitate more sophisticated forms of manipulation when monitoring and enforcement are weak, a pattern also documented in transitional institutional settings (Asmaranti et al., 2024). This suggests that expertise alone is insufficient to ensure effective oversight in the absence of strong accountability and enforcement infrastructures.

Regarding ownership structure, the estimates show a positive effect of managerial ownership on REM, contrary to the expectation that incentive alignment would reduce agency costs. Under a defensive perspective, as managerial ownership rises, managers may adopt defensive behaviors to safeguard short-term private benefits rather than the organization's and shareholders' long-term interests (Fama & Jensen, 1983; Aygun et al., 2014). By contrast, institutional and state ownership exhibit negative associations with REM, consistent with the monitoring role and longer-term orientation of institutional investors under agency theory (Malik, 2015; Zang, 2012) and in line with some evidence from emerging markets (Nguyen et al., 2024). When public oversight mechanisms and accountability requirements are strengthened, REM tends to decline (Dong et al., 2020). Conversely, low state ownership coupled with weak governance is often associated with higher earnings manipulation (Ding et al., 2007; Wang & Yung, 2011).

For the control variables, the negative association between ROA and REM suggests that the volatility of expected profitability influences managers' REM behavior (Gunny, 2010; Cohen & Zarowin, 2010). Meanwhile, higher audit quality is linked to lower

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REM, underscoring auditors' monitoring role in constraining managerial opportunism (Ge & Kim, 2014). In contrast, firm size and financial leverage are positively related to REM. This implies that larger firms, which often employ more debt, may face stronger competitive pressure in an emerging-market setting, thus engaging more in REM to meet market expectations (Habib et al., 2022).

In sum, the findings support the view that specific governance mechanisms and ownership structures, including board size, institutional ownership, and state ownership, help constrain REM in Vietnam. At the same time, they reveal vulnerabilities associated with board independence, board expertise, and managerial ownership when incentive–disciplinary mechanisms and information capabilities are not fully developed. These results reinforce the agency-theoretic argument about the importance of effective monitoring and highlight the role of the institutional context in shaping both the direction and magnitude of effects.

CONCLUSION

This study aimed to examine the influence of board characteristics and ownership structure on REM within an emerging market, utilizing data from Vietnamese non-financial listed firms between 2020 and 2024.

The regression outcomes indicate that three factors constrain REM: board size, institutional ownership, and state ownership. Conversely, board independence, board expertise, and managerial ownership are associated with elevated levels of REM. These results suggest that board and ownership configurations are vital for REM, yet their effects are directional and modulated by contextual variables and governance standards. An appropriately sized board can provide multiple monitoring channels that facilitate the reduction of REM. Institutional investors may also enhance active oversight to better manage REM. Concurrently, regulators could further fortify the corporate governance structure and elevate transparency and accountability standards to minimize REM.

In pursuing the goal of reducing REM, the evidence indicates that the monitoring functions carried out by institutional and state owners are more effective in lowering REM than those usually attributed to independent directors. These findings lead to the conclusion that the effectiveness of corporate governance largely depends on the quality of enforcement, access to information, and the practical authority exercised by monitoring agents, rather than on formal structural compliance alone.

From a broader perspective, the study suggests that improving corporate accountability in emerging markets requires surpassing structural reforms and concentrating on enhancing the operational capabilities of governance actors. Specifically, ownership-based monitoring mechanisms generally prove more effective than formal arrangements involving the board, particularly as institutional enforcement matures.

Several limitations should be considered when interpreting the findings. Firstly, the sample comprises only Vietnamese non-financial listed firms from 2020 to 2024, which constrains the generalizability of the results across different regions and timeframes. Future research may extend the temporal scope, compare different industries or countries, and conduct robustness tests across various business cycles and macroeconomic shocks to assess the stability of the observed relationships. Secondly, the measurement of governance and ownership variables concentrates on key attributes of boards and significant ownership groups. Subsequent studies should expand the set of variables and implement more rigorous identification strategies to address potential endogeneity.

AUTHOR CONTRIBUTIONS

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