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INVESTOR REACTIONS TO FINANCIAL STATEMENT MANIPULATION BY LISTED FIRMS IN THE VIETNAMESE STOCK MARKET

Abstract

This study examines investor reactions to financial statement manipulation in the Vietnamese stock market using a large, unbalanced panel dataset of 11,418 firm-year observations over the 2016–2024 period. The sample comprises 1,398 non-financial companies listed on the HOSE, HNX, and UPCOM, explicitly excluding the financial and banking sectors due to their distinctive regulatory and accounting frameworks. By integrating accrual-based earnings management measures with the M-score model, the research provides novel empirical evidence of asymmetric market behavior. Specifically, investors respond positively to income-increasing earnings management in the short term, while largely ignoring income-decreasing practices. Furthermore, the findings reveal a notable “delayed reaction” phenomenon: fraud risk, as proxied by the M-score, is not immediately incorporated into current stock prices but instead leads to significantly lower future returns. The results also emphasize the M-score’s critical moderating role, demonstrating that the negative impact on future returns is amplified in high fraud-risk environments. Ultimately, this study highlights market inefficiency in an emerging economy and recommends utilizing the M-score as an early warning tool for stakeholders to avoid the earnings illusion trap.

Keywords

financial statement manipulation, earnings management,
investor reaction, M-score, Vietnamese stock market

JEL Classification

M41, G14, G41

INTRODUCTION

The quality of financial reporting information plays a central role in supporting investment decisions and ensuring the efficient allocation of resources in capital markets. According to the Efficient Market Hypothesis, stock prices should promptly and fully reflect all available information; therefore, any distortion in financial information may lead to inaccurate investor reactions and erode market confidence (Diamond & Verrecchia, 1991; Fama, 1970). In this context, financial statement manipulation, whether through accrual-based earnings management practices or financial misrepresentation, represents a critical challenge to the transparency and effective functioning of stock exchanges. Consequently, understanding how capital markets absorb and price risks associated with distorted accounting information is of paramount relevance.

While empirical evidence from developed markets generally demonstrates that investors promptly discount firm value when earnings manipulation or financial fraud is revealed (Dechow et al., 1996), the pricing mechanism in emerging markets presents a more complex scientific problem. These markets are typically characterized by high information asymmetry, underdeveloped monitoring systems,

and a predominant presence of individual investors (Ball et al., 2000; Leuz et al., 2003). Particularly in Vietnam, the institutional context is distinctively shaped by a transitioning regulatory framework and unique ownership structures, notably the significant presence of state ownership and specific limits on foreign ownership, which inherently influence corporate governance and monitoring quality in the market (Dang et al., 2021, 2022). Furthermore, while the market's regulatory environment is evolving, the ongoing application of Vietnamese Accounting Standards (VAS) coupled with constrained enforcement mechanisms often provides opportunistic loopholes for complex financial misrepresentation. The core scientific question is whether investors in such constrained information environments possess the capability to identify and respond rationally to financial statement manipulation in a timely manner, or whether their reactions are delayed until the adverse consequences fully materialize (Chan et al., 2001; Hirshleifer et al., 2009).

This scientific problem is further complicated by the multidimensional nature of accounting manipulation, where market reactions may be asymmetric depending on the direction of earnings adjustments (Ali & Bansal, 2023), and the overarching accounting fraud risk environment (Nguyen et al., 2022; Ogujiofor et al., 2025). Although anomalies related to accruals and earnings quality have been documented in emerging contexts like Vietnam (Hung et al., 2023), there remains a critical theoretical and empirical gap regarding the intersection of accrual-based earnings management and comprehensive fraud prediction models. Specifically, the current scientific landscape lacks a unified framework to explain the potential “delayed reaction” and intertemporal asymmetry in investor behavior when confronting concurrent signals of manipulated earnings and structural fraud risk (Vali Nia et al., 2022). Addressing this deficiency is essential to uncovering the true nature of market inefficiencies and pricing anomalies in developing economies.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

1.1. Earnings management and market anomalies

The quality of financial information is foundational to the efficient allocation of capital. While foundational theories suggest that stock prices should fully reflect all available information (Diamond & Verrecchia, 1991; Fama, 1970), financial statement manipulation distorts this pricing mechanism (Dechow et al., 1996). Earnings management reflects the extent to which managers use accounting judgments to adjust reported earnings, thereby impacting stock mispricing under conditions of information asymmetry (Dechow et al., 2010; Healy & Wahlen, 1999). Extensive literature demonstrates that investors often fail to fully distinguish between discretionary accruals and underlying cash flows, leading to the overvaluation of firms with high accruals and lower subsequent returns (Chan et al., 2001; Richardson et al., 2005; Sloan, 1996).

Beyond the sheer magnitude of manipulation, recent literature emphasizes the asymmetric nature of market reactions dependent on the direction of earnings adjustments. Income-increasing earnings management typically aims to convey positive signals about firm performance, artificially supporting stock prices in the short run (Burgstahler & Dichev, 1997; Teoh et al., 1998), whereas income-decreasing adjustments, often associated with “big bath” strategies, are rarely interpreted by the market as positive signals (Francis et al., 2004). This perceptual asymmetry is particularly pronounced in emerging markets, where investors tend to react naively to positive earnings signals while responding cautiously or weakly to income-decreasing manipulations (Ali & Bansal, 2023; Hirshleifer et al., 2009).

1.2. Accounting fraud risk and the M-score model

Predicting severe financial misrepresentation requires a more comprehensive assessment beyond standalone accruals. This overarching accounting fraud risk is frequently operationalized via the M-score model (Beneish, 1999). High fraud risk

exacerbates information uncertainty, undermines investor confidence, and foreshadows deteriorating future operating performance (Dechow et al., 2011; Hung, 2026; Ogujiofor et al., 2025). Behavioral finance literature suggests that the context in which earnings management occurs is crucial; market reactions to earnings quality are strongly moderated by these overarching risk signals, leading to complex, intertwined effects on stock valuation (Nguyen et al., 2022; Vali Nia et al., 2022).

1.3. Investor reactions in the constrained context of emerging markets

The application of these theoretical frameworks in emerging economies requires special consideration of the institutional context. Emerging markets, such as Vietnam, are typically characterized by weaker investor protection, underdeveloped monitoring systems, and unique ownership structures (Ball et al., 2000; Leuz et al., 2003). The high concentration of state and foreign ownership significantly influences corporate governance quality and earnings management behaviors (Dang et al., 2022; Tran & Dang, 2021). Furthermore, due to limited analytical capacities and high uncertainty, investors in these developing economies often exhibit delayed reactions, failing to immediately incorporate complex negative risk signals into current prices. Instead, they adjust their valuations only in subsequent periods as the true nature of reported earnings is gradually revealed (Hung et al., 2023; Barberis et al., 1998; Hong & Stein, 1999).

1.4. Aim and hypotheses development

Overall, previous academic research suggests that while earnings management and accounting fraud risk independently disrupt market pricing, their combined intertemporal effects remain underexplored, particularly within the constrained information environments of emerging economies. Addressing this gap, this study aims to examine investor reactions to financial statement manipulation by listed firms in the Vietnamese stock market by integrating accrual-based earnings management measures with the M-score model. Based on the logical analysis of the literature, the following hypotheses are proposed:

- H1: The magnitude of earnings management, measured by its absolute value, has a negative impact on stock returns.*
- H2a: Income-increasing earnings management has a positive effect on stock returns.*
- H2b: Income-decreasing earnings management has a weak effect on stock returns.*
- H3: Firms with higher M-scores (i.e., greater accounting fraud risk) have lower stock returns.*
- H4: Accounting fraud risk moderates the relationship between the magnitude of earnings management and stock returns.*
- H5: The negative investor reaction to financial statement manipulation is more clearly reflected in stock returns in subsequent periods.*

2. DATA AND METHODOLOGY

This section outlines the data collection process, the sample selection criteria, and the measurement of the key research variables. Furthermore, it details the econometric models and estimation methods employed to empirically test the proposed hypotheses regarding investor reactions to financial statement manipulation.

2.1. Data and sample selection

This study employs an unbalanced panel dataset of non-financial firms listed on the Vietnamese stock market. Firms operating in the financial and banking sectors are excluded due to their distinctive financial structures and accounting regulations, which may bias the measurement of accruals and earnings management behavior. Financial statement data are obtained from audited annual financial reports, while stock price and return data are collected from official trading records of the stock exchanges.

To reconcile the sample size and provide complete transparency regarding the dataset, Table 1 details the sample construction process. The initial sample encompasses all listed firms on the HOSE, HNX, and UPCOM exchanges. Furthermore, ob-

Table 1. Sample construction process

Screening Criteria	Number of Firms	Firm-year Observations
Initial sample of all listed firms on HOSE, HNX, and UPCOM (2016–2024)	1,668	15,012
<i>Less:</i> Firms in the financial and banking sectors	233	2,097
<i>Less:</i> Observations with missing data for computing DA, M-score, and control variables	9	1,269
<i>Less:</i> winsorized at the 1st and 99th percentiles	28	228
Final Sample	1,398	11,418

servations lacking sufficient data to calculate discretionary accruals, the M-score, and control variables are omitted. The final unbalanced panel dataset comprises exactly 11,418 firm-year observations from 1,398 unique non-financial companies over the 2016–2024 period.

2.2. Measurement of research variables

2.2.1. Investor reactions

Investor reactions are measured using stock returns (RET), which capture the returns earned by investors in year t . To examine delayed market reactions to information related to financial statement manipulation, the study additionally employs future stock returns (FRET), measured in year $t + 1$. This approach allows an assessment of whether the market reacts slowly to complex accounting information, consistent with the under-reaction hypothesis in the literature (Sloan, 1996; Hong & Stein, 1999).

2.2.2. Financial statement manipulation and earnings management

Earnings management is measured by discretionary accruals (DA) estimated using the performance-matched model of Kothari et al. (2005). First, total accruals are calculated as net income minus operating cash flows. These total accruals are then regressed cross-sectionally for each industry-year on the inverse of lagged total assets, the change in revenues adjusted for the change in receivables, property, plant, and equipment (PPE), and lagged return on assets (ROA). The residuals from this estimation represent the discretionary accruals (DA). The absolute value of discretionary accruals ($|DA|$) captures the overall magnitude of earnings management, regardless of its direction, and is used to test Hypothesis H1. To analyze

asymmetric investor reactions, DA is decomposed into positive discretionary accruals (DA_pos) and negative discretionary accruals (DA_neg), following the approach of Teoh et al. (1998), corresponding to Hypotheses H2a and H2b.

In addition, the study employs the M-score as a composite measure of the risk of financial statement manipulation and accounting fraud (Beneish, 1999). The M-score is comprehensively calculated based on eight financial ratios capturing distortions in days' sales in receivables, gross margins, asset quality, sales growth, depreciation, selling and administrative expenses, leverage, and total accruals. A higher M-score indicates a greater likelihood that a firm engages in financial statement manipulation. Following Beneish (1999), firms with an M-score greater than the critical threshold of -2.22 are coded as 1 (indicating high fraud risk), and 0 otherwise.

2.2.3. Control variables

The regression models include a set of control variables commonly used in finance and accounting research. LEV is measured as the ratio of total debt to total assets and captures financial leverage. ROA represents firm profitability. SIZE is measured as the natural logarithm of total assets and reflects firm size. Big4 is a dummy variable equal to 1 if the firm is audited by a Big Four audit firm, controlling audit quality. In addition, the study controls for ownership structure through OWNF (foreign ownership ratio) and OWNS (state ownership ratio), which are important institutional characteristics of the Vietnamese market (Dang et al., 2022; Tran & Dang, 2021).

2.2.4. Research models and estimation methods

To test the research hypotheses, the study employs panel data regression models. The baseline model

examines the impact of earnings management on contemporaneous investor reactions and is specified as follows:

$$\begin{aligned} RET_{i,t} = & \alpha + \beta_1 DA_{i,t} + \beta_2 M_SCORE_{i,t} \quad (1) \\ & + \beta_3 (DA \cdot M_SCORE)_{i,t} \\ & + \sum \gamma_k Control_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t}. \end{aligned}$$

To test asymmetric reactions, DA is replaced by its directional components, DA_pos and DA_neg. To examine the role of financial statement manipulation in risk shaping future market outcomes, a dynamic model linking the M-score to future stock returns is specified as follows:

$$\begin{aligned} F_RET_{i,t} = & \alpha + \beta_1 DA_{i,t} + \beta_2 M_SCORE_{i,t} \\ & + \beta_3 (DA \cdot M_SCORE)_{i,t} \quad (2) \\ & + \sum \gamma_k Control_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t}. \end{aligned}$$

In these specifications, captures firm-specific effects (firm effects) to control for unobserved, time-invariant firm characteristics, and λ_t represents time-specific effects (year effects) to account for macroeconomic shocks common to all firms in a given year. To determine the appropriate model specification, a Hausman test was conducted. The significant test results strongly supported the use of the fixed-effects (FE) model over the random-effects specification. Consequently, all main regressions are estimated using firm and year fixed effects. Furthermore, to address potential issues of heteroskedasticity and cross-sectional serial correlation prevalent in panel data, standard errors are adjusted and clustered at the firm level (Petersen, 2008).

3. RESULTS

Table 2 presents the descriptive statistics for the dataset, which comprises 11,418 observations over the period 2016–2024, indicating a sufficiently large sample to ensure the reliability of subsequent regression analyses. The mean value of stock returns (RET) is positive (0.151), while the standard deviation is relatively high (0.844), reflecting substantial volatility in stock returns in the Vietnamese stock market, consistent with the characteristics of an emerging market.

The variable DA has a mean value of 0.109, suggesting that earnings management is relatively prevalent among listed firms. The decomposition of DA into DA_pos and DA_neg clearly captures earnings adjustments in two opposite directions. The mean value of M_SCORE is 0.544, implying that more than half of the observations fall into the group of firms with relatively high accounting fraud risk.

Control variables such as LEV and ROA exhibit wide dispersion, indicating considerable heterogeneity in financial structure and operating performance across firms. The proportion of firms audited by Big Four audit firms remains relatively low (18.8%), while the levels of foreign ownership and state ownership are moderate, reflecting the diverse corporate governance characteristics of the sample.

Table 2. Descriptive statistics of research variables for non-financial listed firms in Vietnam (2016–2024)

Variable	Obs	Mean	Std. dev.	Min	Max
RET	11,418	0.151	0.844	−0.99	20.34
DA	11,418	0.109	0.205	0.00	10.10
DA_pos	5,505	0.112	0.195	0.00	3.97
DA_neg	5,913	−0.106	0.213	−10.10	0.00
M_SCORE	11,418	0.544	0.498	0	1
LEV	11,418	0.639	2.340	0.00	132.46
ROA	11,418	0.024	0.421	−24.20	3.69
SIZE	11,418	27.125	1.682	16.72	34.36
Big4	11,418	0.188	0.391	0	1
OWNF	11,418	0.056	0.119	0	0.99
OWNS	11,418	0.279	0.294	0	1

Table 3 reports the correlation matrix, which indicates that the relationships among the research variables are generally low to moderate, thereby alleviating concerns about multicollinearity. Stock returns (RET) exhibit a positive and statistically significant correlation with DA and ROA, suggesting that in the short term, the market may respond positively to profitability and to earnings management behavior. DA are significantly and positively correlated with M_SCORE and LEV, but negatively correlated with ROA, SIZE, Big4, and the ownership variables, indicating that earnings management tends to be more pronounced among firms with higher risk, lower performance, and weaker monitoring quality. The correlation coefficients

Table 3. Correlation matrix of the research variables

Variable	RET	DA	M_SCORE	LEV	ROA	SIZE	Big4	OWNF	OWNS
RET	1								
DA	0.0379*	1							
M_SCORE	0.0031	0.1056*	1						
LEV	0.0116	0.4530*	0.0178	1					
ROA	0.0237*	-0.2135*	0.0215*	-0.3694*	1				
SIZE	-0.0042	-0.1146*	-0.1250*	-0.1006*	0.1041*	1			
Big4	-0.0163	-0.0489*	-0.0815*	-0.0249*	0.0421*	0.4335*	1		
OWNF	-0.0262*	-0.0383*	-0.0435*	-0.0232*	0.0362*	0.2641*	0.3244*	1	
OWNS	-0.0105	-0.0705*	-0.1035*	-0.0162	0.0475*	-0.0494*	-0.0136	-0.1659*	1

Note: * $p < 0.05$.

among the independent variables are all below the commonly accepted threshold of 0.7, confirming the suitability of the variables for subsequent regression analyses.

The regression results reported in Table 4 provide important empirical evidence on how the market responds to different forms of financial statement manipulation.

First, the results in column (1) show that the coefficient on DA is positive and statistically significant at the 5% level ($\beta = 0.158$; $t = 2.34$). This finding contradicts the expectation of an immediate negative penalty proposed in Hypothesis H1. Instead, it indicates that in the short run, investors in the Vietnamese stock market do not fully discount the information risk associated with earnings manipulation, leading to a contemporaneous, positive price response. This highlights a transient market inefficiency where investors naively overvalue managed earnings before making long-term corrections.

Second, when earnings management is decomposed by direction, the results in columns (2) and (3) show that income-increasing earnings management (DA_pos) has a positive and strongly significant effect on stock returns ($\beta = 0.307$; $t = 2.77$), whereas income-decreasing earnings management (DA_neg) does not exhibit a significant impact on RET. These findings provide clear support for Hypothesis H2a while rejecting a significant effect as hypothesized in H2b. This pattern indicates an asymmetric market reaction to financial statement manipulation: income-increasing practices are interpreted by investors as positive signals of firm performance or prospects, thereby

driving stock prices upward in the short term. In contrast, income-decreasing practices do not convey clear signals and thus fail to trigger a meaningful investor response.

Third, the results in column (4) indicate that the M-score does not have a statistically significant effect on contemporaneous stock returns ($\beta = -0.00551$; $t = -0.27$), implying that Hypothesis H3 is not supported in the context of contemporaneous market reactions. This finding suggests that accounting fraud risk, as measured by the M-score, is not immediately incorporated into stock prices. A plausible explanation is that the M-score is relatively technical in nature and not easily recognized by typical investors, particularly in an emerging market characterized by substantial information asymmetry.

The regression results in column (5) further show that the interaction term between discretionary accruals and accounting fraud risk (DA_MSCORE) is not statistically significant with respect to RET. This implies that, in the short term, investors do not adjust their reactions to earnings management even when it is accompanied by a high level of fraud risk. Nevertheless, the positive sign of the coefficient suggests that fraud-related information may be incorporated into prices with a delay, thereby supporting the moderating role of the M-score in analyses of future stock returns, consistent with Hypothesis H5 from a dynamic information perspective. Overall, these results indicate that investor reactions to financial statement manipulation in Vietnam are selective and asymmetric, reflecting the limited informational efficiency of the Vietnamese stock market.

In addition, the control variables yield several noteworthy findings. ROA has a positive and consistent effect on RET across all models, highlighting the important role of operating performance in stock valuation. Foreign ownership (OWNF) exhibits a negative and statistically significant effect, suggesting that foreign investors tend to be more cautious in the presence of information manipulation risk. By contrast, firm size (SIZE) and Big Four audit status (Big4) have no significant effects on stock returns.

It is important to note that the values across the regression models are relatively low, ranging from 0.005 to 0.011 (as shown in Tables 4 and 5). However, in asset pricing literature and returns-based regressions, particularly in volatile emerging markets, low explanatory power is typical and widely accepted. Stock returns are inherently noisy and driven by a multitude of unpredictable macroeconomic, market-wide, and behavioral factors beyond firm-specific accounting variables (Chan et al., 2001; Sloan, 1996). The statistical sig-

nificance of the coefficients, rather than the overarching, remains the primary focus for testing the proposed hypotheses.

Based on the regression results reported in Table 5, where future stock returns (F_RET) are employed as the dependent variable, the study provides important empirical evidence on how investors in the Vietnamese stock market respond to financial statement manipulation, as measured by DA and the M-score.

First, the results in column (1) indicate that DA has a negative and strongly statistically significant effect on F_RET (coefficients of -0.206 and -0.703 , significant at the 1% level). This finding implies that firms with higher levels of earnings management tend to experience lower stock returns in subsequent periods. The result supports the hypothesis that the market does not fully incorporate information related to accounting manipulation in the current period; instead, stock price adjustments occur with a delay as such in-

Table 4. Regression results with contemporaneous stock returns (RET)

Variable	(1)	(2)	(3)	(4)	(5)
DA	0.158** [2.34]				0.108 [0.86]
DA_pos		0.307*** [2.77]			
DA_neg			0.0434 [0.61]		
M_SCORE				-0.00551 [-0.27]	-0.0157 [-0.64]
DA_MSCORE					0.0594 [0.41]
LEV	0.00064 [0.15]	0.0458* [1.87]	0.00445 [0.94]	0.00650** [2.23]	0.00031 [0.07]
ROA	0.100*** [3.79]	0.0681*** [2.72]	0.0775*** [3.30]	0.0984*** [4.24]	0.100*** [3.78]
SIZE	-0.0653 [-1.51]	-0.0348 [-0.73]	-0.115 [-1.63]	-0.0616 [-1.42]	-0.0658 [-1.51]
Big4	0.0457 [1.08]	0.0561 [1.04]	0.0633 [0.85]	0.0415 [0.98]	0.0455 [1.08]
OWNF	-0.740*** [-4.60]	-0.949*** [-3.33]	-0.521*** [-2.60]	-0.749*** [-4.57]	-0.739*** [-4.60]
OWNS	0.258* [1.82]	0.276 [1.48]	0.198 [1.11]	0.251* [1.76]	0.257* [1.80]
_cons	1.864 [1.58]	1.004 [0.77]	3.231* [1.67]	1.781 [1.50]	1.887 [1.59]
N	11418	5505	5913	11418	11418
R-sq	0.006	0.011	0.005	0.005	0.006

Note: t statistics in brackets; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 5. Regression results with future stock returns (F_RET)

Variable	(1)	(2)	(3)	(4)	(5)
DA	−0.206*** [−2.81]				−0.703*** [−5.51]
DA_pos		−0.299*** [−4.67]			
DA_neg			0.0619 [0.55]		
M_SCORE				−0.0811*** [−3.67]	−0.131*** [−5.04]
DA_MSCORE					0.589*** [4.25]
LEV	0.00368 [0.47]	−0.0281 [−1.34]	−0.00349 [−0.32]	−0.00926*** [−2.73]	−0.00233 [−0.33]
ROA	0.0135 [0.51]	0.0533*** [2.77]	0.0345 [1.06]	0.018 [0.80]	0.0135 [0.51]
SIZE	−0.195*** [−6.94]	−0.145*** [−3.40]	−0.209*** [−5.30]	−0.202*** [−7.29]	−0.200*** [−7.09]
Big4	0.128* [1.83]	0.123 [1.39]	0.13 [1.15]	0.134* [1.92]	0.126* [1.80]
OWNF	0.0212 [0.16]	0.237 [1.14]	0.033 [0.16]	0.0332 [0.26]	0.0191 [0.15]
OWNS	−0.00761 [−0.08]	−0.323* [−1.83]	0.178 [1.38]	−0.0124 [−0.14]	−0.019 [−0.21]
_cons	5.441*** [7.14]	4.182*** [3.58]	5.755*** [5.37]	5.659*** [7.53]	5.678*** [7.41]
N	9865	4765	5100	9865	9865
R-sq	0.007	0.01	0.006	0.007	0.011

Note: t statistics in brackets; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

formation becomes more clearly recognized. This evidence is consistent with arguments regarding delayed investor reactions in emerging markets, where information quality and investors' analytical capacity remain limited.

Second, the results in column (2), which decompose earnings management by direction, show that income-increasing earnings management (DA_pos) has a strongly negative and statistically significant impact on future stock returns (−0.299, at the 1% significance level), whereas income-decreasing earnings management (DA_neg) is not statistically significant. This suggests that, in the short term, investors may be “misled” by inflated earnings; however, in subsequent periods, the market corrects more strongly for firms exhibiting income-increasing manipulation. In contrast, income-decreasing adjustments, often associated with conservative reporting or income-smoothing motives, do not lead to a clearly negative market reaction. These findings further reinforce the hypothesis of asymmetric investor responses to dif-

ferent forms of financial statement manipulation, leading to the acceptance of Hypothesis H5.

Third, the results in column (4) show that the M-score has a negative and highly statistically significant effect on F_RET (coefficients of −0.081 and −0.131), indicating that firms with higher accounting fraud risk face lower future stock returns. This finding suggests that, although investor recognition may be delayed, the market eventually identifies and “penalizes” firms with poor financial reporting quality. The result is consistent with international evidence on accounting fraud and market efficiency.

Notably, the interaction term DA_MSCORE in column (5) exhibits a positive and highly statistically significant coefficient (0.589). To accurately interpret this, we must examine the marginal effects. The base main effect of DA on F_RET is heavily negative ($\beta = -0.703$). For firms with high accounting fraud risk (M_SCORE = 1), the overall marginal effect of DA on future returns becomes

$-0.114 (-0.703 + 0.589)$. This mathematical result indicates that the negative impact of earnings management on future stock returns is actually *attenuated* (weakened) rather than amplified in high fraud-risk environments. A plausible explanation is that severe information opacity and complex reporting associated with high M-scores impede the market's analytical ability, causing investors to struggle with fully disentangling and penalizing specific accrual adjustments even in subsequent periods. Alternatively, the direct penalty applied to the overarching fraud risk itself (M-score coefficient of -0.131) may dominate the market correction mechanism.

Finally, the control variables suggest that several firm characteristics continue to play an important role. Firm size (SIZE) shows a consistently negative and robust effect on F_RET, implying that larger firms tend to generate lower future stock returns. The Big4 variable has a weakly positive effect, suggesting a signaling role of audit quality. In contrast, ROA and LEV are no longer statistically significant in most F_RET specifications, indicating that once accounting manipulation is considered, traditional performance measures become less relevant in explaining future returns.

Overall, the findings confirm that investors' negative reactions to financial statement manipulation in Vietnam are primarily reflected in the long run, underscoring the critical role of accounting information quality and fraud risk in stock valuation.

In summary, the hypothesis testing yields the following conclusions. Hypothesis *H1* is not supported in the short term but is supported in subsequent periods, as investors initially overvalue managed earnings before making corrections. Hypothesis *H2a* is fully supported, and Hypothesis *H2b* is also supported as income-decreasing adjustments show no significant impact. Hypothesis *H3* is not supported for contemporaneous returns but is strongly supported for future returns. Hypothesis *H4* is supported, demonstrating that accounting fraud risk significantly moderates the effect of earnings management on future returns. Finally, Hypothesis *H5* is accepted, confirming that the negative market reactions to financial statement manipulation are predominantly reflected in subsequent periods.

4. DISCUSSION

The empirical results of this study reveal an intertemporal and asymmetric mechanism of investor reactions to financial statement manipulation in the Vietnamese stock market. Specifically, the contemporaneous regression analysis demonstrates that the overall magnitude of earnings management (DA) and income-increasing adjustments (DA_pos) have a statistically significant positive effect on current stock returns (RET), while income-decreasing adjustments (DA_neg) and the stand-alone accounting fraud risk (M-score) exhibit no significant immediate impact. These findings indicate that, in the short run, investors in Vietnam naively respond to inflated earnings signals rather than discounting the underlying information risk. Comparing these results with prior literature, this study's evidence aligns directly with the findings of Sloan (1996) and Chan et al. (2001), who argue that investors frequently fail to fully distinguish between sustainable cash flows and opportunistic accrual adjustments. Furthermore, the observed short-term market inefficiency strongly corroborates previous research in other emerging Asian markets, which documents a pronounced tendency among investors to initially overvalue managed earnings due to limited analytical capabilities and high information asymmetry (Habib et al., 2013).

Conversely, the analysis of future stock returns (F_RET) yields contrasting results: the magnitude of earnings management (DA), income-increasing adjustments (DA_pos), and accounting fraud risk (M-score) all exert negative and highly significant effects on subsequent-period returns. This indicates that the initial positive market reaction is transient, and a substantial post-recognition price correction occurs as the true nature of the manipulated earnings and fraud risk is eventually revealed. When compared to existing literature, this delayed "penalization" strongly supports the post-earnings-announcement drift and delayed reaction hypotheses documented by Xie (2001) and Richardson et al. (2005). Additionally, the significant negative impact of the M-score on future returns corroborates the findings of Beneish (1999), Dechow et al. (2011), and Dang and Pham (2022), proving that high accounting fraud risk reliably foreshadows deteriorating future market performance. The stark contrast between the short-term

overvaluation and long-term correction found in this study extends the established evidence on emerging market inefficiencies (Ball et al., 2000; Porta et al., 1998) by demonstrating the specific intertemporal timeline of investor reactions.

Finally, the study finds that the interaction between earnings management and accounting fraud risk (DA_MSCORE) has no immediate effect on current returns but exhibits a significant impact on future stock returns. This specific result highlights that the overarching fraud context acts as a critical moderating factor: when earnings management coincides with a high-risk information environment, severe information

opacity impedes the market's analytical ability. Consequently, the specific market correction for accruals is actually attenuated (weakened), as investors struggle to fully disentangle complex accounting adjustments, or they simply choose to heavily penalize the overarching fraud risk (the M-score itself). This evidence offers a novel contribution by bridging accrual anomaly studies with comprehensive fraud models. It aligns with the arguments of Nguyen et al. (2022), who emphasize that the overarching information environment is crucial in shaping market reactions, and complements (Ogujiofor et al., 2025) regarding how complex fraudulent contexts disrupt investor analytical capacities.

CONCLUSIONS AND POLICY IMPLICATIONS

This study examines immediate and delayed investor reactions to financial statement manipulation in the Vietnamese stock market by integrating accrual-based measures with the M-score model. The results reveal asymmetric short-term behavior: investors react positively to income-increasing manipulation while largely ignoring income-decreasing adjustments and overarching fraud risk. However, a significant delayed reaction occurs in subsequent periods, where high earnings management and fraud risk lead to heavily penalized future returns. Notably, this long-term penalization of earnings management is attenuated in high fraud-risk environments due to severe information opacity. Overall, the market exhibits short-term inefficiency, as investors initially fall for the “earnings illusion” before correcting valuations in the long run.

Consequently, this study offers several policy implications. *First*, investors should avoid over-reliance on reported earnings and mitigate risks by using early warning tools such as the M-score alongside cash flow analyses. *Second*, listed firms must prioritize financial reporting quality and transparency over short-term earnings adjustments that ultimately erode long-term market performance. *Third*, audit firms, particularly non-Big Four, should strengthen procedures targeting accruals and fraud indicators to reinforce market confidence. *Finally*, securities market regulators must intensify supervision, enhance disclosure frameworks, and promote manipulation detection tools to improve the market's long-term informational efficiency.

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