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Earnings Management Under Pressure: The Effects of Environmental Uncertainty, Financial Distress, and CSR Disclosure

Tria Susanti[1], **Sumaryanto Sumaryanto**[2]*

[1,2] Department of Accounting, Universitas Ahmad Dahlan, Indonesia
*Corresponding Author

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Abstract

Earnings are often a primary concern for stakeholders, which may encourage management to engage in earnings management practices, particularly when firms face internal and external pressures. This study aims to investigate the effect of environmental uncertainty, financial distress, and CSR disclosure on earnings management practices. The population consists of manufacturing companies listed on the Indonesia Stock Exchange for the 2021–2024 period. The sample was selected through purposive sampling, yielding 344 observations, which were analyzed using panel data regression. The results indicate that environmental uncertainty does not affect earnings management practices. However, financial distress and CSR disclosure negatively affect earnings management. This study simultaneously examines the three factors to analyze earnings management practices during the observation period using appropriate measurement approaches. This study adds to the empirical evidence on the determinants of earnings management by highlighting the role of internal factors, particularly financial distress and CSR disclosure. These findings provide practical implications for investors, creditors, and regulators by emphasizing the importance of evaluating firms' financial conditions and the quality of CSR disclosure to identify potential earnings management and improve the quality of economic decision-making.

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Introduction

Company performance reflects the extent to which a firm utilizes its resources to achieve corporate targets, as measured by profits reported in financial statements (Feni et al., 2022; Prasetyo et al., 2021). Financial statements serve as a medium of communication and a tool for corporate accountability, presenting periodic information on a company's condition that stakeholders, both internal and external, require to make economic decisions (Baturante et al., 2018; Ladini et al., 2022). In the face of increasingly intense and dynamic business competition, preparing financial statements in accordance with accounting standards is crucial to ensuring accurate decision-making. To maintain stakeholder trust and corporate image, management seeks to minimize potential losses while presenting financial statements that reflect positive performance trends, thereby enhancing long-term prospects (Nurcahyono & Sinarasri, 2023). One of the actions management undertakes is implementing earnings management policies.

Earnings management refers to managerial practices that adjust financial reports to achieve specific objectives, raising concerns about a potential decline in the quality of reported information (Siwi et al., 2025). Earnings management occurs when managers utilize discretionary policies in financial reporting and transaction structuring to modify financial statements, potentially misleading stakeholders about the company's performance or influencing decision-making outcomes (Healy & Wahlen, 1999). Earnings management conducted in accordance with accounting standards, such as delaying expense recognition or accelerating revenue recognition, remains within permissible limits and does not violate regulations. However, when such practices are carried out excessively and breach ethical boundaries, financial statements no longer reflect the company's actual condition (EL Agha & Norfadzilah Rashid, 2023).

Earnings management is considered a form of fraud when managers engage in it to gain personal benefits while disregarding stakeholders' interests (Juliana & Reskino, 2023). Earnings management practices are suspected to have occurred in Indonesia, as illustrated by the case of PT Indofarma Tbk during the 2020-2023 period. PT Indofarma was alleged to have made material adjustments to its financial statements that exceeded reasonable limits, with indications of state losses amounting to IDR 371 billion (BPK, 2024). This case highlights ongoing concerns regarding the transparency and credibility of financial reporting, which may undermine stakeholder trust and lead to inefficient decision-making. These conditions highlight the importance of identifying the factors driving earnings management to improve the reliability of financial reporting. Previous studies have reported mixed findings regarding the factors influencing earnings management, indicating the need for further empirical investigation in Indonesian manufacturing companies, particularly in the post-pandemic period.

Environmental uncertainty in recent years has significantly affected business conditions. Environmental uncertainty refers to conditions that alter market dynamics, thereby influencing corporate performance, value, and strategy (Temouri et al., 2022). Environmental uncertainty is driven by various external factors, including macroeconomic conditions, technological change, supplier and consumer dynamics, market conditions, economic crises, instability in international relations, and government regulations (Xu et al., 2021). Uncertainty is often difficult to predict due to information limitations, making it challenging for management to anticipate changes and make managerial decisions, which can lead to operational losses. According to Statistics Indonesia, corporate conditions amid global uncertainty and the post-pandemic period have undergone significant changes. This is reflected in manufacturing production performance, which declined from 7.52% in 2021 to 2.41% in 2023, with only a slight increase to 2.61% in 2024, indicating that corporate performance stability has not yet fully recovered (BPS, 2025). Managers are therefore required to continuously adapt to ensure that such conditions do not adversely affect corporate earnings and performance. Studies by Rigamonti et al. (2024) and Lunardi and Klann (2025) indicate that environmental uncertainty motivates managers to engage in earnings management to create the impression of more stable financial performance. Meanwhile, Oktris et al. (2025) did not find a significant relationship between environmental uncertainty and the practice of financial statement manipulation, which constitutes part of illegal earnings management. These mixed findings suggest that the relationship between environmental uncertainty and earnings management remains inconclusive. In addition, empirical evidence from Indonesian manufacturing companies, particularly in the post-pandemic period, remains relatively limited.

High levels of environmental uncertainty can adversely affect a firm's long-term financial performance and may lead to financial distress. Financial distress occurs when a company is unable to meet its financial obligations, either due to an imbalance between current assets and current liabilities or insufficient cash flows to cover liabilities, which may ultimately result in bankruptcy (Chen et al., 1995; Lassoued & Khanchel, 2025; Li et al., 2020). Under such conditions, managers may be incentivized to engage in earnings management in order to influence stakeholders' perceptions of the firm's financial condition, particularly through accrual-based practices. Empirical evidence provides mixed results regarding this relationship. According to Aljughaiman et al. (2023) and Permatasari et al. (2025), financial distress experienced by companies encourages the practice of earnings management. Meanwhile, Maryati et al. (2023) argue that financial distress does not affect corporate earnings management practices. These inconsistent findings suggest that the effect of financial distress on earnings management remains poorly understood, particularly among Indonesian manufacturing companies facing post-pandemic economic pressures.

On the other hand, companies have social responsibilities toward society, both as a form of social concern and as a means of regulatory compliance. POJK No. 51/POJK.03/2017 regulates sustainable finance and gradually requires issuers and publicly listed companies to publicly disclose sustainability reports that are accessible to stakeholders. Managers who consciously and voluntarily engage in social responsibility tend to behave more ethically, resulting in more reliable and higher-quality financial statements (Gonçalves et al., 2021). Empirical evidence suggests that CSR disclosure may influence earnings management practices. Alodat et al. (2023) find that companies that disclose CSR tend to be more transparent and report financial information more ethically, with this effect supported by external monitoring, thereby reducing earnings management practices. However, Wati and Malik (2021) report that CSR disclosure does not significantly affect earnings management. The inconsistent findings in prior studies indicate that the role of CSR disclosure in constraining earnings management still warrants further examination, particularly within Indonesia's post-pandemic manufacturing sector.

Previous studies have examined the effects of environmental uncertainty, financial distress, and CSR disclosure only partially and have reported inconsistent results. This study investigates the effects of these three factors simultaneously within a single empirical framework, a limitation in the prior literature, particularly in the context of manufacturing companies in Indonesia. This study also employs refined measurement approaches to more accurately represent each construct, thereby complementing prior research findings. In addition, it uses recent post-pandemic data to provide more up-to-date empirical evidence in an underexplored context. The objective of this study is to explore the conditions that influence earnings management practices in manufacturing firms, including environmental uncertainty as a source of external pressure, financial distress as an internal financial condition, and CSR disclosure as a disclosure mechanism. The theoretical implications of this study are intended to expand and strengthen empirical knowledge about the factors influencing earnings management. At the same time, the practical implications aim to help corporate stakeholders make informed decisions by considering various factors that affect earnings management under uncertainty.

Literature Review

Hypothesis Development

Environmental Uncertainty and Earnings Management

Environmental uncertainty reflects the extent to which firms lack sufficient information about their operating environment (Seviana & Kristanto, 2020). This uncertainty is a key factor influencing corporate decision-making and comprises various dimensions, including political, cultural, economic, and governmental uncertainty in the context of international business (Sniazhko, 2019). Uncertainty that is difficult to measure and predict may lead to a decline in firm performance and potentially to bankruptcy (Sharma et al., 2020; Surbakti & Sudaryati, 2021). Under environmental uncertainty, external information becomes less predictable, making it difficult for principals to accurately assess managers' true performance, thereby increasing information asymmetry between agents and principals.

Based on agency theory, information asymmetry arises when managers, as agents, have greater access to corporate information than owners or principals (Jensen & Meckling, 1976; Siwi et al., 2025). In the context of environmental uncertainty, this asymmetry may be further intensified, creating greater opportunities for managers to engage in earnings management to maintain performance and protect their reputations. However, environmental uncertainty may also encourage managers to act more cautiously because increased business risk tends to intensify scrutiny of the quality of financial reporting by shareholders, creditors, and regulators. Such conditions may limit managerial discretion and reduce managers' incentives to engage in opportunistic earnings reporting practices.

Previous studies have found that environmental uncertainty has a positive effect, encouraging managers to engage in earnings management (Cui et al., 2020; Surbakti & Sudaryati, 2021; Gao et al., 2025; Lunardi & Klann, 2025). High and persistent environmental uncertainty increases performance pressure and financial risk, thereby encouraging managers to engage in earnings management in a cautious and less aggressive manner to maintain corporate performance, particularly under high regulatory pressure. However, studies by Bekiaris et al. (2025) and Tran (2025) report contrasting findings, with the latter indicating a negative effect. This negative relationship indicates that environmental uncertainty may reduce earnings management by increasing managerial caution, stemming from stricter monitoring and stronger corporate governance.
H1: *Environmental uncertainty affects earnings management.*

Financial Distress and Earnings Management
Companies aim to maximize profits and use earnings as periodic performance targets; however, financial losses or conditions of financial distress often create pressure on managers (Hanum et al., 2023). Prolonged financial distress may lead to bankruptcy, reflecting managers' inability to manage adverse conditions and restore stable financial performance (Almubarak et al., 2023; Permatasari et al., 2024). Such conditions influence stakeholders' decisions and place managers in high-risk situations, including loss of managerial and corporate reputation, contract termination, and increasingly stringent external monitoring. According to agency theory proposed by Jensen and Meckling (1976), financial distress can exacerbate information asymmetry between managers and owners, thereby potentially increasing managers' incentives to engage in earnings management to protect their own interests and reduce pressure from owners. Li et al. (2020) indicate that financial distress tends to increase accrual-based earnings management. On the other hand, financial distress may heighten stakeholders' awareness of potential earnings management practices that could adversely affect their interests. Companies facing financial distress tend to face tighter scrutiny from creditors, investors, and regulators due to concerns about financial sustainability and the firm’s ability to meet its financial obligations. As a result, managerial discretion becomes more restricted, while stronger external oversight and higher litigation risk may discourage managers from engaging in earnings management practices.

Feni et al. (2022), Almubarak et al. (2023), Dzung et al. (2024), and Trần and Đỗ (2025) conclude that financial distress positively affects earnings management by creating performance pressure that encourages managers to maintain their reputation and avoid negative investor reactions. Meanwhile, Tsaqif and Agustiningsih (2021) and Permatasari et al. (2025) report opposite findings. This negative effect can occur because the company has adopted more conservative reporting practices or is subject to strict external monitoring, thereby limiting managers' opportunities to engage in earnings management. In contrast, Maryati et al. (2023) demonstrate that financial distress does not significantly affect earnings management. To maintain investor confidence, managers prefer to focus on financial recovery for business continuity without engaging in earnings management.
H2: *Financial distress affects earnings management.*

CSR Disclosure and Earnings Management

Companies with a strong commitment to social responsibility tend to be more transparent and more focused on sustaining long-term relationships (Velte, 2024). Compliance with disclosure regulations enhances the quality of corporate information, thereby narrowing managers' discretionary space to engage in earnings management (Fan et al., 2023). This is because financial data must be consistent with the reported sustainability narrative. In addition, increased public awareness of sustainability issues leads to stricter external monitoring, where pressure from regulators and stakeholders encourages managers to act more ethically and responsibly, thereby reducing opportunistic behavior (Alodat et al., 2023).

Based on stakeholder theory proposed by Freeman (1984), all parties influence and are influenced by organizational activities and objectives. Firms with a stakeholder-oriented approach tend to safeguard trust and reputation due to stakeholder pressure and monitoring, thereby constraining opportunistic earnings management (Haydar & Machmuddah, 2024; Ni, 2020). From both stakeholder theory and agency theory perspectives, firms oriented toward stakeholder expectations tend to engage in sustainability disclosure as a form of accountability to maintain long-term relationships, thereby reducing earnings management and mitigating information asymmetry.

As a result, corporate management becomes more accountable and reduces earnings management practices to safeguard the interests of all parties (Kumala & Siregar, 2021; Muliati et al., 2021; Borralho et al., 2022; Alodat et al., 2023). CSR disclosure enhances ethical practices and transparency in reporting, thereby limiting managers' earnings management, especially in family-owned firms.

H3: *CSR disclosure has a negative effect on earnings management.*

Based on the development of the hypotheses, the research framework is structured as presented in Figure 1:

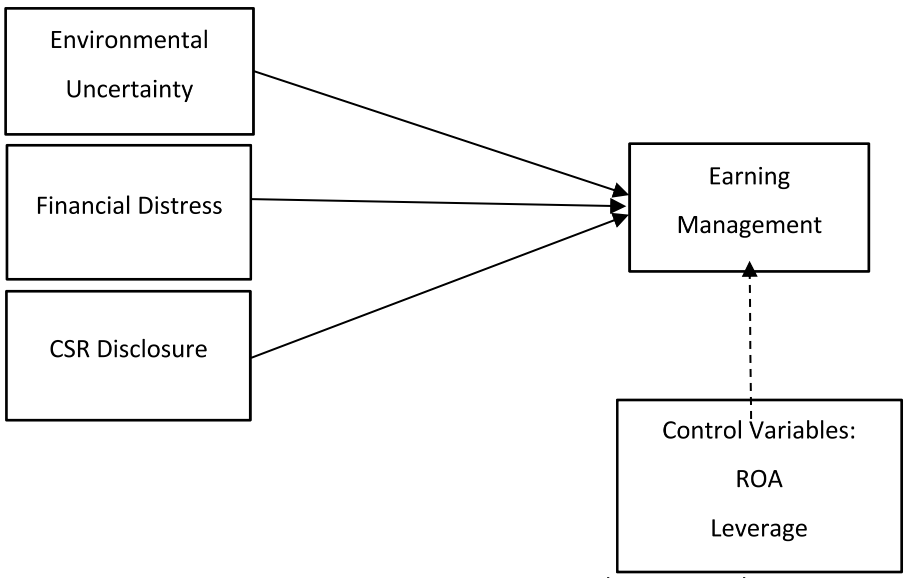

Figure 1. Conceptual Framework

Method

Method

This study employs a quantitative approach using secondary data obtained from the annual and sustainability reports of manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2024 period. The sample was selected using purposive sampling based on the following criteria: (1) manufacturing companies listed on the IDX during the 2021-2024 period; (2) availability of complete annual reports; (3) availability of complete sustainability reports in accordance with GRI standards; and (4) completeness of the data required for analysis. Based on these criteria, a total of 86 companies were selected, resulting in 344 firm-year observations. The data were analyzed using statistical methods to examine the relationships among the research variables.

Table 1. Measurement of Research Variables

No	Variable	Measurement
1	Earning management (AEM)	1. $TAC_{it} = NI_{IT} - CFO_{it}$ 2. $\frac{TAC_{it}}{A_{it-1}} = \alpha + \alpha_1 \frac{1}{A_{it-1}} + \beta_1 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_2 \frac{\Delta PPE_{it}}{A_{it-1}} + \varepsilon_{it}$ 3. $NDAC_{it} = \alpha + \alpha_1 \frac{1}{A_{it-1}} + \beta_1 \frac{(\Delta REV_{it} - (\Delta REC_{it})}{A_{it-1}} + \beta_2 \frac{\Delta PPE_{it}}{A_{it-1}} + \varepsilon_{it}$ 4. $DAC_{it} = \frac{TAC_{it}}{A_{it-1}}$ - $NDAC_{it}$ (Dechow et al., 1995; Fitrasari, 2023)
2	Environmental uncertainty (EU)	$CV(Si) = \sqrt{\sum_{i=1}^{5} \frac{(Si - Smean^2)}{5}}$ (Surbakti & Sudaryati, 2021)
3	Financial distress (FD)	$Z - Score = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$ Classification criteria: 1 = if the Z-Score is below 1.81 0 = if the Z-Score is above 1.81 or otherwise (Altman, 1968; Lagasio et al., 2023; Liang et al., 2020)
4	Corporate Social Responsibility Disclosure (CSRD)	$CSRD = \sum \frac{X_t}{n_t}$ Disclosure criteria: 1 = item disclosed 0 = item not disclosed (Alodat et al., 2023; Nurullah et al., 2025)
5	ROA	$ROA = \frac{Net\ Income}{Total\ Assets}$ (Gonçalves et al., 2021; Fitrasari, 2023)
6	Leverage (LEV)	$LEV = \frac{Total\ Liabilities}{Total\ Assets}$ (Feni et al., 2022; Alodat et al., 2023)

Earnings management is proxied by discretionary accruals using the Modified Jones Model, as this method is considered effective at distinguishing between normal and discretionary accruals and is widely employed in empirical studies to detect earnings management, particularly in manufacturing firms with complex operations (Dechow et al., 1995; Fitrasari, 2023). Environmental uncertainty is measured using sales volatility, calculated as the coefficient of variation of the ratio over the last five years, reflecting the instability of firm performance due to changes in external conditions (Surbakti & Sudaryati, 2021). Financial distress is proxied by the Altman Z-score, which has strong predictive accuracy for identifying the likelihood of financial difficulties (Altman, 1968; Lagasio et al., 2023; Liang et al., 2020). Meanwhile, CSR disclosure is measured using a disclosure index based on the proportion of items disclosed in accordance with the GRI Standards, which is considered capable of comprehensively capturing the level of corporate transparency (Alodat et al., 2023; Nurullah et al., 2025).

In addition, this study incorporates control variables. Return on Assets (ROA) is used to represent a firm's ability to generate earnings from its assets by Gonçalves et al. (2021); Fitrasari (2023), while leverage reflects the extent of debt utilization in the firm's capital structure (Feni et al., 2022; Alodat et al., 2023). The selection of these proxies is based on their theoretical relevance, empirical robustness, and consistent use in prior studies, thereby ensuring more reliable and comparable measurements across firms.

This study utilizes panel data, which integrate cross-sectional and time-series observations across multiple entities within a defined period of analysis (Sugiyono, 2014). Hypothesis testing is conducted through panel data regression. The panel regression model is estimated using three alternative approaches: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). The most appropriate regression model is then determined using the Chow, Hausman, and Lagrange Multiplier tests. Subsequently, classical assumption tests are performed to ensure statistically reliable and valid results, including tests for multicollinearity, heteroskedasticity, and autocorrelation. Accordingly, the panel regression equation for hypothesis testing is specified as follows:

$Y = \alpha + X1 + X2 + X3 + ROA + LEV + \varepsilon$ ....(1)

The dependent variable (Y) represents earnings management, which is proxied by discretionary accruals. The independent variables include environmental uncertainty (X1), financial distress (X2), and CSR disclosure (X3). In addition, the research model incorporates control variables, namely Return on Assets (ROA) and Leverage (LEV), to strengthen its validity (Alodat et al., 2023). The symbol α denotes the constant, symbol β represents the regression coefficients for each variable, and ε denotes the error term that cannot be explained by the model.

Result and Discussion

An overview of the research variables is presented in Table 2, along with descriptive statistics. Earnings management has a mean value of 0.059, a standard deviation of 0.062, and a range from 0.000 to 0.424. These results indicate that earnings management practices among manufacturing firms are relatively low, although the data exhibit substantial variation, suggesting that some firms engage in earnings management at higher levels than others.

Environmental uncertainty is transformed using the natural logarithm, with a standard deviation of 0.735 and a mean of -1.973, indicating a fairly dispersed yet reasonable distribution that reflects heterogeneity in the level of environmental uncertainty faced by manufacturing firms. The wide range of values, from -3.948 to 0.131, reflects substantial variation in environmental uncertainty across manufacturing firms. Financial distress has an average value of 0.264 with relatively high variability (standard deviation of 0.441), suggesting significant differences in financial conditions among firms. This indicates that while some firms remain financially stable, others face considerable financial pressure.

CSR disclosure shows a standard deviation of 0.179 and a mean of 0.566, indicating relatively low variation across firms. This reflects a fairly homogeneous level of CSR disclosure practices among companies. ROA ranges from -1.77 to 0.313, implying that while some firms generate positive returns, others exhibit non-optimal financial performance, indicating differences in firms' profitability performance. Meanwhile, leverage shows relatively controlled variation, with a standard deviation of 0.318.

Table 2. Descriptive Statistics

Variable	Observations	Mean	Std. Dev	Min	Max
AEM	344	0.059	0.062	0.000	0.424
EU	344	-1.973	0.735	-3.948	0.131
FD	344	0.264	0.441	0	1
CSRD	344	0.566	0.179	0.077	0.991
ROA	344	0.049	0.124	-1.77	0.313
LEV	344	0.480	0.318	0.040	2.642

Source: Processed data, 2026

Table 3 presents the results of the panel-data regression model selection conducted in this study. The analysis indicates that the Random Effect Model (REM) is the most suitable approach for estimating the panel data regression. The Chow test yields a p-value of 0.029, indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model (CEM). Subsequently, the Hausman test, conducted as a further model-selection procedure, yields a p-value of 0.529, which is not statistically significant, thereby supporting the use of the Random Effect Model (REM). These findings are further supported by the Lagrange Multiplier test, which yields a p-value of 0.040, confirming that REM provides the most appropriate and reliable estimate for the panel data regression.

Table 3. Panel Regression Model Selection

Test	P-Value	Selected
Chow Test	0.029	FEM
Hausman Test	0.529	REM
Lagrange Multiplier Test	0.040	REM

Source: Processed data, 2026

Table 4. Multicollinearity, Heteroskedasticity, and Autocorrelation Tests

Multicollinearity Test		
Variable	**VIF**	**1/VIF**
EU	4.61	0.217
FD	1.96	0.511
CSRD	6.02	0.166
ROA	1.38	0.723
LEV	3.77	0.265
Mean VIF	3.55	
Type of Test	**P-value**	
Breusch and Pagan Heteroscedasticity	0.040	
Wooldridge Test Autocorrelation	0.294	

Source: Processed data, 2026

Table 4 presents the results of the classical assumption tests to confirm that the regression model yields unbiased and reliable estimates. The Variance Inflation Factor (VIF) values do not exceed 10; the highest is 6.02, with an average of 3.55. This indicates the absence of high correlations among the independent variables, suggesting that the model is free from multicollinearity. The Breusch-Pagan test indicates heteroskedasticity in the model, with a p-value of 0.040. This issue is statistically addressed by applying Cluster-robust Standard Errors in the estimation of the Random Effect Model, ensuring that statistical inferences remain consistent and reliable. Furthermore, the Wooldridge test result of 0.294 indicates no serious autocorrelation problem, thereby strengthening the reliability of the standard errors in the study's panel data structure.

Environmental uncertainty has a coefficient of 0.003, indicating a positive relationship with earnings management. However, the p-value of 0.549 suggests that this relationship is not significant. Accordingly, the first hypothesis (H1) is rejected, indicating that environmental uncertainty does not affect earnings management practices. This finding is consistent with the results of Ghani et al. (2017) and Oktris et al. (2025), who also report no significant effect of environmental uncertainty on earnings management.

This finding does not support the agency theory prediction that increased environmental uncertainty would exacerbate information asymmetry and encourage earnings management. The lack of significance result can be understood in the context of broader macroeconomic conditions, where, according to BPS (2025), household consumption and domestic demand remain relatively strong as key drivers of economic growth, indicating resilience in the manufacturing sector. In addition, firms focus on recovery and expansion, reflecting confidence in investment and future business prospects; therefore, managers have no incentives to engage in opportunistic earnings management. However, this is positioned as a macroeconomic background condition rather than a primary factor that directly explains earnings management practices.

Furthermore, effective internal controls and the continued strength of market positions protect business operations without resorting to earnings management (Oktris et al., 2025).

Table 5. Results of Hypothesis Testing

Hypothesis		Regression Coefficient	P-Value	Result
Environmental Uncertainty → Earnings Management	H1	0.003	0.549	Rejected
Financial Distress → Earnings Management	H2	-0.037	0.000***	Supported
CSR Disclosure → Earnings Management	H3	-0.034	0.064*	Supported
ROA		-0.124	0.012**	
Leverage		0.046	0.004***	
Constant		0.078	0.000***	
R-squared overall			0.132	
Wald chi2			0.0002	
The symbols ***, **, and * represent significance levels of 1%, 5%, and 10%, respectively.				

Source: Processed data, 2026

Financial distress has a coefficient of −0.037 and is statistically significant (p-value < 0.01), indicating a negative effect on earnings management. Accordingly, H2 is supported. This finding suggests that an increase in a firm's financial distress is associated with a decrease in earnings management, as firms become more cautious in their financial reporting. From an agency theory perspective, financial distress intensifies monitoring by creditors and investors, thereby reducing information asymmetry and limiting managerial discretion in financial reporting. Companies approaching bankruptcy are generally subject to greater scrutiny from stakeholders, leading to tighter monitoring. Such conditions limit managers' discretion to engage in earnings management. These results are consistent with the findings of (Tsaqif and Agustiningsih, 2021 and Permatasari et al., 2025). Under financial distress, firms tend to avoid actions that could further worsen market perceptions and adopt more conservative financial reporting strategies (Permatasari et al., 2025).

CSR disclosure shows a coefficient of -0.034 with a p-value of 0.064 (< 0.10), indicating a negative effect on earnings management; therefore, H3 is supported. This finding confirms that firms with higher levels of CSR disclosure tend to be less engaged in earnings management practices. From a stakeholder theory perspective, firms are accountable to a broader range of stakeholders and are therefore encouraged to maintain transparency and ethical behavior in financial reporting. This finding is consistent with the studies of (Kumala & Siregar, 2021; Muliati et al., 2021; Borralho et al., 2022; and Alodat et al., 2023). Companies committed to CSR disclosure tend to uphold higher ethical standards in their reporting practices, leading to greater transparency and higher-quality financial reporting, thereby limiting the scope for earnings management. Moreover, CSR disclosure reflects a firm's commitment to long-term sustainability. External monitoring related to corporate sustainability encourages managers to act responsibly in safeguarding stakeholders' interests and trust by avoiding risky earnings management practices.

Regarding the control variables, the results indicate that ROA has a p-value of 0.012 (< 0.05), while leverage has a p-value of 0.004 (< 0.01). These findings suggest that higher profitability tends to reduce earnings management, whereas greater reliance on debt tends to increase it. Moreover, the inclusion of control variables significantly enhances the model's explanatory power. This improvement is reflected in the increase in the overall R-squared value from 0.023 in the model without control variables to 0.132, indicating that the estimated effects of the variables become more reliable and stable.

The overall R-squared value of 0.132 indicates that 13.2% of the variation in earnings management can be explained by the independent variables, suggesting that other factors not included in the model may also influence earnings management, such as corporate governance, audit quality, ownership structure, or other factors. Furthermore, the Wald test shows a statistically significant result (p-value 0.0002), indicating that the model is jointly significant and appropriate for explaining earnings management.

Conclusions and Recommendations

This study examines the effects of environmental uncertainty, financial distress, and CSR disclosure on earnings management practices in Indonesian manufacturing companies during the post-pandemic period. The findings indicate that environmental uncertainty does not have a significant effect on earnings management. In contrast, financial distress and CSR disclosure are found to negatively affect earnings management practices. These findings suggest that internal corporate factors and transparency mechanisms play a more dominant role in influencing earnings management practices than external uncertainty factors.

From a theoretical perspective, this study contributes to agency theory by demonstrating that financial distress may reduce managerial discretion to engage in earnings management due to increased external monitoring and stakeholder scrutiny. In addition, this study supports stakeholder theory by showing that CSR disclosure may serve as a mechanism for transparency and ethical reporting capable of discouraging opportunistic financial reporting behavior. This study also enriches the literature on the determinants of earnings management by simultaneously examining environmental uncertainty, financial distress, and CSR disclosure within a single empirical framework, using post-pandemic data from Indonesian manufacturing companies.

From a practical perspective, the findings emphasize the importance of companies maintaining financial stability and improving reporting transparency to minimize earnings management and enhance the credibility of financial statements. Furthermore, investors, creditors, and regulators need to pay greater attention to firms' financial conditions and CSR disclosure practices when assessing earnings management risks and making economic decisions.

This study has several limitations. First, the analysis is limited to manufacturing companies listed on the Indonesia Stock Exchange, which may restrict the generalizability of the findings to other sectors. Second, this study relies on secondary data obtained from annual reports and sustainability reports. Third, the observation period is limited to 2021-2024 and focuses solely on accrual-based earnings management measurement.

Therefore, future research is encouraged to examine additional factors that may influence earnings management practices, such as corporate governance, audit quality, ownership structure, and other contextual variables. Future studies may also employ alternative proxies in measuring the variables or distinguish between real earnings management and accrual-based earnings management to obtain a more comprehensive understanding of managerial behavior. In addition, expanding the scope of research to additional sectors, longer observation periods, and cross-country analyses, particularly in developing countries, may yield broader insights into the patterns and variations in earnings management practices.

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