

Empirical Evidence on Managerial Ownership, Conservatism, Audit Quality, and Opportunistic Reporting

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ABSTRACT

This study explores the moderating role of managerial ownership in the relationship between accounting conservatism, leverage, and audit quality on earnings management within Indonesia's raw materials sector. Employing panel data regression with a fixed effects model and Moderated Regression Analysis (MRA), the research analyzes 72 firm-year observations from raw material companies during the 2020–2025 period. The findings reveal that accounting conservatism exerts a significant positive partial effect on earnings management, whereas leverage, audit quality, and all interaction terms with managerial ownership do not demonstrate statistical significance. These results suggest that the influence of governance mechanisms on earnings management is nuanced, with conservatism emerging as the only consistently significant determinant. The absence of significant moderating effects highlights the complexity of managerial ownership's role and cautions against drawing conclusive claims regarding its effectiveness compared to external governance mechanisms. Instead, the study positions managerial ownership as an exploratory dimension that warrants further empirical investigation. By distinguishing statistically supported findings from non-significant tendencies, this research contributes to the literature on corporate governance and earnings management, offering preliminary evidence on governance interactions in Indonesia's raw materials sector and encouraging future studies to refine the analysis with broader samples and alternative methodological approaches.

Keywords: Accounting conservatism; Audit quality; Earnings management; Leverage; Managerial ownership.

1. INTRODUCTION

Earnings management remains prevalent and a significant concern in the accounting literature because it can degrade the quality of financial information and mislead economic decision-making (Brennan, 2021; Healy & Wahlen, 1999). In the raw materials sector, the pressure to maintain financial performance and attract investors often encourages management to engage in opportunistic accounting manipulations (Amah et al., 2023). A study by Restuningdiah and Sidharta (2023) of 98 companies in Indonesia's raw materials sector shows that leverage and tax planning tend to improve profit management practices, although not always statistically significant. In addition, the Indonesian raw materials sector report noted that over the last 12 months, market capitalization decreased by 6.44%, indicating financial performance pressures amid commodity price fluctuations and global uncertainty (Nadya, 2024). When companies face external pressures such as declining demand and exchange rate volatility, management often adjusts financial statements to maintain investor and creditor perceptions (Héricourt & Poncet, 2015; Levia & Wahyudi, 2025). Although various supervisory mechanisms have been implemented, such as external audits and the application of accounting conservatism, profit management practices remain significant (Hong et al., 2023).

This phenomenon indicates a gap in the effectiveness of existing control mechanisms, mainly when managerial ownership also influences the direction of the company's financial

policy. Previous research has tended to examine the direct influence of variables such as accounting conservatism, leverage, and audit quality on profit management, but few have explored the role of managerial ownership in moderating this relationship.

Agency theory is the primary foundation for understanding the practice of profit management, where there is a conflict of interest between management (the agent) and the company owner (the principal) (Jensen & Meckling, 1976; Niswah & Nilwan, 2024). Management has an incentive to present favorable financial statements for personal gain, such as bonuses or reputation, which can encourage profit management (Winarno et al., 2022). Accounting conservatism serves as a reporting mechanism that aggressively limits the recognition of profits and improves the quality of financial information (Alves & Carmo, 2022). Leverage reflects pressure from creditors that can influence financial reporting policies and encourage management to engage in profit management to maintain financial ratios (Pradipta & Lisnawati, 2025). Audit quality serves as external supervision, aiming to increase the credibility of financial statements and deter manipulative practices (Le, 2025). On the other hand, managerial ownership can strengthen or weaken such oversight mechanisms depending on the level of control and incentives that management has (Sethi et al., 2022).

Research on accounting conservatism shows that the application of the principle of prudence in financial reporting can suppress profit management practices (Hartam & Kresnawati, 2022). A study by Zadeh et al. (2022) found that economic distress and company size affect the level of accounting conservatism in raw material companies. A survey by Ardiany et al. (2023) found that accounting conservatism helps maintain the quality of profits in companies in the consumption sector. Meanwhile, according to Ghazalat et al. (2023), the journal Scopus indicates that accounting conservatism is negatively correlated with the level of profit manipulation in emerging markets.

Regarding leverage, research by Kusumawati et al. (2022) shows that leverage positively affects the earnings response coefficient, reflecting pressure on management to maintain the company's financial image. Gunarianto et al. (2023) found that leverage has a significant negative impact on the economic performance of LQ45 companies, thereby driving profit management in response to external pressures. Research by Arhinful and Radmehr (2023) also shows that leverage is closely related to financial distress, which is often a trigger for manipulative practices in financial reporting.

In the context of audit quality, Bawuah (2024) shows that audit committees and tenure audits have a significant effect on profit management, with overly long tenure audits reducing auditor independence. Research by Alsmady, (2023) shows that the quality of external audits can increase transparency in financial statements and reduce earnings management practices in Indonesian companies. Ahmad et al. (2023) also emphasized that high audit quality significantly lowers the level of profit management in Jordanian companies.

As for managerial ownership, research by Boli and Ferdian (2025) shows that management shareholding has a positive effect on financial performance but also creates opportunities for management to influence financial reporting strategically. Alodat et al. (2022) found that managerial ownership is significantly associated with economic distress, which can trigger profit management practices as a means of protecting internal interests. Patriandari et al. (2023) also found that managerial ownership affects the effectiveness of financial decision-making and profit reporting in transportation companies in Indonesia.

This study aims to investigate the effects of accounting conservatism, leverage, and audit quality on earnings management, while also examining whether managerial ownership moderates these relationships. The study is motivated by the need to develop a deeper understanding of how internal and external financial monitoring mechanisms interact within raw materials companies in Indonesia.

Based on this objective, the research questions are formulated as follows:

RQ1: Do accounting conservatism, leverage, and audit quality significantly affect earnings management?

RQ2: Does managerial ownership moderate the effects of accounting conservatism, leverage, and audit quality on earnings management?

This study differs from previous studies that generally only examined the direct influence between variables, without considering internal ownership dynamics as a moderation factor (Ghazalat et al., 2023; Le, 2025; Sethi et al., 2022). By integrating the perspectives of corporate governance and financial reporting, this study makes a theoretical contribution in broadening the understanding of the effectiveness of supervisory mechanisms in suppressing profit management practices. In practice, the results of this study are expected to serve as a reference for regulators, auditors, and investors in assessing the risk of financial statement manipulation based on a company's ownership structure and characteristics. This study examines IDX raw materials firms because they face strong pressures from commodity volatility, exchange rates, and debt reliance. These conditions heighten earnings management risks, while governance mechanisms show mixed effectiveness, making the sector a distinctive context for testing governance interactions in emerging markets. In addition, this study enriches the accounting literature in emerging markets with a contextually relevant moderation approach.

Hejranijamil (2025) says that accounting conservatism is the action taken by accountants and managers when faced with uncertainty in measuring the economic impact of a transaction, both in terms of costs and revenue. This principle emphasizes that recognition of income and expenses is made only when the transaction has occurred, not based on estimates or assumptions. Thus, the application of accounting conservatism is to ensure that the financial statements are more accurate and realistic. Hejranijamil (2025) argued that conservatism affects profit management. This conclusion is reinforced by Krismiaji and Astuti (2020), and Paidar-Ardakani (2003), who found that accounting conservatism significantly influences profit management. In line with this, the study by Ritonga et al. (2023) shows the positive influence of accounting conservatism on profit management. Meanwhile, Li (2019) states that accounting conservatism negatively affects profit management. In contrast to these results, the study Ramsah et al. (2023) found that conservatism does not influence profit management. Based on this study, the hypothesis is:

H₁: Accounting conservatism has a significant effect on Profit Management.

According to Nukala and Rao (2021), this ratio provides a comprehensive overview of the company's debt structure so that stakeholders can understand the level of risk associated with the company's ability to meet its debt obligations. By analyzing the ratio leverage, companies and investors can identify potential risks of default or inability to pay off debts in a timely manner. This allows for the implementation of preventive measures or improvements in financial strategies to ensure business stability and sustainability. As explained by Heling and Lastanti (2024), a high-leverage company means that it has more debt than assets, and this can cause management to be encouraged to manipulate financial statements, including through profit management, so that debt does not appear large and performance looks positive. Different results are shown by Indrawan et al. (2018), which state that leverage has a negative influence on profit management. However, Prawida (2021) also noted that no leverage effect was found in other cases. In contrast to Drajat (2025), which reveals that leverage contributes to profit management practices, and this is in line with Indriani and Ramli (2024), who have a positive influence. So the hypothesis in this study is as follows:

H₂: Leverage has a positive effect on Profit Management.

Audit quality is widely recognized as an external monitoring mechanism that plays a crucial role in reducing the likelihood of misrepresentation in financial statements. Istianingsih (2021) emphasizes that high-quality audits are characterized by systematic and independent processes, supported by auditor competence, professional experience, and independence. Auditors with extensive expertise in accounting and financial reporting are better equipped to detect inconsistencies and errors, thereby constraining opportunistic reporting practices. Nevertheless, empirical evidence remains inconclusive. Sudradjat et al. (2023) and Le (2025) report that audit quality does not significantly influence earnings management, suggesting that external monitoring may be insufficient in certain contexts. Conversely, Mwangi (2024) document a negative relationship, indicating that stronger audit quality can mitigate manipulation practices.

From a theoretical perspective, the expectation of a non-effect requires careful justification. In the raw materials sector, which is characterized by commodity price volatility, exchange-rate exposure, and reliance on debt financing, managers may face strong incentives to engage in earnings management regardless of audit quality. Moreover, when audit quality is proxied solely by Big Four affiliation, it fails to capture more nuanced dimensions such as audit tenure, industry specialization, or audit fees. This limitation may weaken the monitoring role of auditors and explain why empirical findings often reveal insignificant effects Ogabo et al. (2021); Mubaraq et al. (2021), and Lubis et al. (2025).

Based on the theoretical framework and prior empirical evidence, the hypothesis of this study is formulated as follows:

H₃: Audit quality has a negative effect on earnings management.

Managerial ownership refers to the proportion of a company's shares held by managers who are directly involved in corporate decision-making. This ownership arrangement may align managers' interests with those of shareholders because managers also bear part of the economic consequences of their decisions. As a result, managerial ownership can reduce agency conflicts and lessen reliance on intensive monitoring mechanisms (Ang et al., 2000; Singh & Davidson, 2003). Higher managerial share ownership may also strengthen managers' commitment and accountability, discourage opportunistic behavior, and encourage greater attention to corporate performance and profitability. Because managers share both the potential benefits and risks arising from corporate decisions, they may be more motivated to protect the company's long-term value.

Ogabo et al. (2021) further argue that managerial ownership links managers' personal wealth more closely to the financial condition of the company. This connection may encourage managers to limit financial risk, including by adopting more prudent debt policies. Managerial ownership is generally measured as the number of shares held by management divided by the company's total outstanding shares. This ratio reflects the extent of managers' participation in company ownership and indicates their potential influence over corporate policies and strategic decisions. Therefore, examining the proportion of managerial ownership is important for understanding managerial incentives, corporate governance, and financial decision-making. t

H₄: Managerial ownership weakens accounting conservatism in favor of profit management.

H₅: Managerial ownership weakens the influence of leverage on profit management.

H₆: Managerial Ownership Weakens the Influence of Audit Quality on Profit Management.

2. METHOD

This study aims to analyze and provide empirical evidence on the influence of accounting conservatism, Audit Quality and Leverage on Earnings Management (EM) practices and to examine the role of Managerial Ownership (MO) as a moderation variable. This research is categorized as Quantitative Research with a Causality Approach (Cause-and-Effect Relationship) (Mohajan, 2020). The data used are the Data Panel, which combines time-series data and cross-sectional data (Winarno, 2015). Hypothesis testing was conducted using the Moderated Regression Analysis (MRA) method to examine the effect of Managerial Ownership (Ghozali & Ratmono, 2017).

The population of this study is all raw materials companies listed on the Indonesia Stock Exchange (IDX) during the period 2020 to 2025. The raw materials sector is considered highly vulnerable to Earnings Management practices due to its dependence on global commodity prices, exchange rate fluctuations, and capital-intensive operations, which create strong incentives for managers to manipulate reported financial performance. The sampling technique used is Purposive Sampling, which involves selecting samples based on specific criteria relevant to the research objectives (Sekaran & Bougie, 2016). The sample criteria that must be met are: 1) raw material companies listed on the IDX during the 2020–2025 period consecutively. 2) Publish the annual financial statements and annual reports in full and successive for the calculation of all variables.

Variable measurements are designed based on proxies that are common and consistently used in the current financial accounting and auditing literature.

Table 1. Variable Operational Definition

Variable Name	Concept Definition	Measurement	Reference Source
Earnings Management (EM)	Deliberate attempts by managers to influence earnings reporting to achieve specific objectives, often through accrual manipulation.	Beneish M-Score M-Score = $-4.84 + 0.920 \cdot \text{DSRI} + 0.528 \cdot \text{GMI} + 0.404 \cdot \text{AQI} + 0.892 \cdot \text{SGI} + 0.115 \cdot \text{DEPI} - 0.172 \cdot \text{SGAI} + 4.679 \cdot \text{TATA} - 0.327 \cdot \text{LVGI}$	(Restuningdi ah & Sidharta, 2023); (Levia & Wahyudi, 2025)
Managerial Ownership (MO)	The level of share ownership by the company's management (directors and commissioners), which functions as a mechanism of Good Corporate Governance to align the interests of principals and agents (Agency Theory).	Managerial Ownership Number of shares owned by management $= \frac{\text{Number of shares owned by management}}{\text{Number of shares outstanding}}$	(Zadeh et al., 2022); (Lubis et al., 2025)
Accounting Conservatism (AC)	Prudential practices in asset valuation and the determination of corporate profits.	Givoly and Hayn's (2000) model: $\text{KNSV} = (\text{Net Profit} - \text{Operating Cash Flow}) / \text{Total Assets}$	(Ritonga et al., 2023) (Amin & Kurniadiati, 2022)
Leverage (LEV)	Ratios that indicate the extent to which a company's assets are funded by debt, which can increase financial risk and motivate managers to manipulate profits to	Debt to Equity Ratio (DER) = $\frac{\text{total debt}}{\text{total equity}}$	(Arhinful & Radmehr, 2023); (Indriani & Ramli, 2024)

avoid debt covenant violations.		
Audit Quality (AQ)	Quality that reflects the auditor's ability to detect and report material misrepresentations in financial statements to increase the credibility of the report.	Variable Dummy: KAP Big Four = 1; Non-Big Four = 0
		(Le, 2025); (Krismiaji & Sumayyah, 2023); (Alsmady, 2023)

The data is processed and analyzed using the Regression Data Panel in EViews 10. The regression model used is Moderated Regression Analysis (MRA) to test the hypothesis. The interaction variable is formed by multiplying the independent variable (X) by the moderation variable (Z).

$$EM = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 MO + \beta_5 (X_1 * MO) + \beta_6 (X_2 * MO) + \beta_7 (X_3 * MO) + \epsilon \dots \dots (1)$$

The selection of the most appropriate estimation model between the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM) is carried out through a series of statistical tests: Chow Test: Comparing CEM vs. FEM. If the probability value of F is statistically < 0.05, then FEM is chosen (Chow, 1960; Wooldridge, 2010). Breusch-Pagan Lagrange Multiplier (LM) Test: Comparing CEM vs. REM. If the LM probability is < 0.05, then REM is chosen (Baltagi, 2021; Breusch & Pagan, 1980). Hausman Test: Comparing FEM vs. REM. If the probability value of X2 is statistically < 0.05, then FEM is chosen (Hausman, 1978; Wooldridge, 2010).

Classical assumption tests are performed on selected models (CEM, FEM, or REM) to ensure that the regression model used is unbiased, and the results are valid (Baltagi, 2021; Wooldridge, 2010). Multicollinearity Test: Checked with the value of the Variance Inflation Factor (VIF). Multicollinearity does not occur if the VIF value is < 10 (O'Brien, 2007). Heteroscedasticity Test: Examined with the White Test. If the probability of Cross-Section X2 > 0.05 is greater than 0.05, then the model is heteroscedasticity-free. If this occurs, corrections are made using White Cross-Section Standard Errors & Covariance (Arellano, 1987; White, 1980). Autocorrelation Test: Checked with the Breusch-Godfrey LM Test. Autocorrelation does not occur if the probability of X2 > 0.05 (Breusch, 1978; Godfrey, 1978).

Simultaneous Significance Test (F Test): Tests whether all independent and moderating variables together affect Earnings Management. The hypothesis is accepted if the probability of F is statistically < 0.05. Coefficient of Determination (R2): Indicates how well independent and moderating variables explain the variation in the dependent variable. Individual Significance Test (t-Test): Used to test the partial influence of each independent variable (AQ, LEV and AC) and interaction variable ($\beta_5 - \beta_7$) on Earnings Management. A partial hypothesis is accepted if the probability of a statistical t < 0.05.

3. RESULTS AND DISCUSSION

3.1 Panel Data Regression Model Selection

The test results show that the Fixed Effects Model (FEM) is the best model chosen for regression analysis: 1). Chow Test: Prob Value. Cross-Section F (0.0054) and Chi-square (0.0005) < 0.05, select FEM. 2). Hausman Test: Prob Value. (0.0001) < 0.05, select FEM. 3).

Table 2. Results of the Glejser Heteroscedasticity Test

Test Statistic	Value	Prob.
F-statistic	0.010747	0.074406
Obs*R-squared	12.4521	0.327000
Scaled explained SS	8.9632	0.082896

Source: Eviews 2026 Results

In Table 2, it can be seen that the Chi-Square probability value of ObsR-squared* is 0.3270, greater than the significance level of 0.05. Thus, it can be concluded that this regression model does not experience heteroscedasticity, so the classical assumption of homoscedasticity is fulfilled.

Table 3. Multicollinearity Test Results

Variabel Independen	Tolerance	VIF
Accounting Conservatism	0.845	1.183
Leverage	0.792	1.263
Audit Quality	0.876	1.141

In Table 3, it can be seen that the independent variables of Accounting Conservatism, Leverage, and Audit Quality have a Tolerance value above 0.10 and a Variance Inflation Factor (VIF) value below 10, respectively. In general, this criterion shows that there is no problem of multicollinearity in regression models. Thus, the relationships between independent variables do not distort each other, so the model can be used to test the influence of variables on ROA more reliably.

3.2 Model Feasibility Test and Coefficient of Determination (R^2)

Simultaneous Test (F-Test): The F-calculated value of 9.350009 is greater than the F-table (2.51), and the significance value of 0.000000 < 0.05. This shows that Accounting Conservatism, Leverage, Audit Quality, Managerial Ownership, and interaction variables together (simultaneously) significantly affect Profit Management.

Coefficient of Determination (R^2): The Adjusted R-squared value is 0.679169 or 67.9%. This shows that the variation in Profit Management is explained by independent variables and moderation variables of 67.9%, while other factors outside the research model explain the rest (32.1%).

3.3 Partial Hypothesis Test (T Test)

Table 4. Partial Hypothesis Test

Hypothesis	Variable	Coefficient	Std. Error	t-count	t-table	p-value	Result Hypothesis
H1	Accounting Conservatism	0.4521	0.0975	4.637200	1.99	0.0000	Accepted
H2	Leverage	-0.2154	0.1150	-	1.99	0.0666	Rejected
H3	Audit Quality	-0.1342	0.1228	-	1.99	0.2791	Rejected
				1.093542			
F-statistic				9.350009			
Prob(F-statistic)				0.000000			
R-squared				0.701			
Adjusted R-squared				0.679			

Source: Eviews 2026 Results

3.4 Moderation Test (MRA)

Table 3. Moderation Test

Hypothesis	Interaction Variable	Coefficient	Std. Error	t-count	t-table	p-value	Result Hypothesis
H4	X1 * Z (Conservatism × Managerial Ownership)	-0.0523	0.1285	-0.407178	1.99	0.6855	Rejected
H5	X2 * Z (Leverage × Managerial Ownership)	0.1742	0.1194	1.457984	1.99	0.1507	Rejected
H6	X3 * Z (Audit Quality × Managerial Ownership)	-0.1027	0.1058	-0.970220	1.99	0.3363	Rejected

Source: Eviews 2026 Results

The empirical findings of the panel data regression analysis, summarized in the previous partial hypothesis and moderation testing tables, provide a basis for concluding that: 1) Collectively, Accounting Conservatism, Leverage, Audit Quality, and Managerial Ownership have a significant effect on Profit Management in companies in the IDX raw material sector for the 2020–2025 period. 2) Accounting Conservatism partially has a positive and significant effect on Profit Management. 3) Leverage and Audit Quality have no significant effect on Profit Management. 4) Managerial Ownership (Z) is not statistically proven to play a role as a moderation variable in the relationship between Accounting Conservatism, Leverage, and Audit Quality to Profit Management. The results of the MRA test showed that the H4, H5, and H6 interactions were rejected ($\alpha > 0.05$), so there is no empirical evidence to support the role of Managerial Ownership moderation in this model.

3.5 DISCUSSION

The Effect of Accounting Conservatism on Earnings Management

The t-test results reveal that accounting conservatism exerts a positive and statistically significant influence on earnings management. This conclusion is supported by a t-statistic of 4.637200 and a probability value of 0.0000, which falls below the 0.05 significance level. The positive regression coefficient indicates that higher levels of accounting conservatism are associated with more extensive earnings-management activities. From a statistical perspective, this outcome deviates from the conventional normative view of accounting conservatism.

This result is inconsistent with the fundamental premise of Agency Theory, which considers accounting conservatism a corporate-governance mechanism intended to reduce conflicts of interest between principals and agents, limit managers' capacity to overstate earnings, and protect shareholders through the timely recognition of economic losses. Contrary to this theoretical expectation, the positive relationship observed in this study suggests that greater accounting conservatism may coincide with a higher probability of financial-statement manipulation, as captured by the Beneish M-Score.

Conservative reporting policies, including the earlier recognition of losses and the postponement of gain recognition, may cause firms to report unusually low earnings in the current period. Under pressure from investors, creditors, or the broader capital market, managers may subsequently become more inclined to adopt opportunistic reporting strategies in later periods to enhance perceptions of the firm's financial performance. Such behavior may raise the Beneish M-Score,

signaling a greater likelihood of manipulation and thereby producing a positive association between accounting conservatism and earnings management. Accordingly, accounting conservatism may not invariably operate as an effective protective mechanism. Under certain circumstances, particularly when firms experience financial constraints or substantial external scrutiny, conservative reporting may contribute to an elevated risk of financial misstatement.

Despite their counterintuitive nature, these findings are supported by several earlier studies. Alia et al. (2020), for instance, documented a positive effect of accounting conservatism on earnings management among Indonesian companies operating in the raw-materials sector. Zadeh et al. (2022) similarly reported a positive and statistically significant relationship. The results reported by Alia et al. (2020) provide further support for this empirical consistency, while Hartam and Kresnawati (2022) indicated that accounting conservatism may encourage managers to adjust reported earnings in order to satisfy internal objectives or external performance expectations.

The Effect of Leverage on Earnings Management

In contrast to the findings for accounting conservatism, the t-test results indicate that leverage does not significantly affect earnings management. Although the regression coefficient is negative, the t-statistic of -1.872710 and the significance value of 0.0666, which exceeds the 0.05 threshold, demonstrate that the relationship is not statistically significant. The rejection of this hypothesis suggests that debt ratios are not the principal factor driving managers to manipulate earnings in companies within the raw-materials sector.

The absence of a significant leverage effect implies that the level of corporate debt is not a primary determinant of financial-statement manipulation risk within the sample examined. However, this result should not be interpreted as evidence that Agency Theory or Signaling Theory lacks relevance. It merely shows that the proposed relationship was not empirically supported under the particular model specification, observation period, and measurement approach used in this research.

Factors other than the amount of leverage may have a stronger role in restricting managerial discretion. These factors may include the effectiveness of supervision by the board of commissioners and the strength or quality of debt-covenant provisions. Companies in the raw-materials sector commonly possess substantial fixed assets and operate through relatively long business cycles. Consequently, high leverage may be regarded as a normal feature of their capital structure and may therefore be accepted by both creditors and market participants.

Furthermore, when companies rely on real earnings-management techniques, the relationship between leverage and the Beneish M-Score, which serves as an indicator of manipulation risk, may become less apparent. Under these circumstances, the absolute amount of corporate debt may be less important in controlling earnings manipulation than the effectiveness of board oversight or the quality of debt covenants. These governance mechanisms may more directly restrict managers' ability to exercise discretion over financial reporting.

The findings are consistent with several previous investigations, although other studies have produced contrasting conclusions. Nalarreason et al. (2019) and Kusumawati et al. (2022) similarly concluded that leverage did not significantly influence earnings-management practices. The results are also supported by Pradipta and Lisnawati (2025), who demonstrated that financial characteristics such as leverage are not necessarily the dominant determinants of earnings manipulation. Instead, governance-related factors or firm size may have a more substantial influence.

The Effect of Audit Quality on Earnings Management

The t-test results show that audit quality has no statistically significant influence on earnings management. This conclusion is based on a t-statistic of -1.093542 and a probability value of 0.2791, which is greater than the 0.05 significance threshold. Although the negative coefficient

corresponds with the theoretically expected direction, audit quality, as represented by affiliation with a Big Four public accounting firm, is not statistically proven to reduce earnings-management practices.

The findings indicate that the engagement of a Big Four auditor does not consistently constrain the risk of financial-statement manipulation, particularly among raw-materials companies that typically conduct complex transactions. Nevertheless, the insignificant result should not be regarded as a rejection of Agency Theory. Rather, it suggests that the proxy used in this study, namely the Big Four dummy variable, may not adequately represent the multidimensional nature of audit quality.

Audit quality involves several characteristics beyond accounting-firm size, including auditor industry specialization, audit tenure, and audit-fee arrangements. These dimensions were not incorporated into the present research model. Therefore, subsequent studies should employ broader and more comprehensive proxies to obtain a more detailed assessment of the capacity of audit quality to mitigate financial-statement manipulation.

The insignificant relationship may also be explained by the operational complexity of the raw-materials sector and the inherent constraints of external audit procedures. Large companies frequently undertake sophisticated and highly complex transactions, creating opportunities for managers to shift manipulation from accrual-based practices, which auditors may detect more readily, toward real earnings-management activities. Such activities may include postponing discretionary expenditures or selling assets to alter reported financial performance, both of which are generally more difficult for auditors to identify.

Managers may also undertake earnings-management activities within the limits of discretionary accruals that audit firms implicitly consider tolerable. Consequently, reporting adjustments that remain within these acceptable thresholds may neither be detected nor corrected, even when the financial statements are examined by a Big Four auditor.

These findings are consistent with several previous studies that questioned the effectiveness of audit-firm size as the sole indicator of audit quality and the primary mechanism for preventing earnings management. Alsmady (2023) supported this conclusion by reporting that audit quality did not significantly affect earnings-management practices. Similarly, Bawuah (2024) found no significant relationship between audit quality, measured through a Big Four public-accounting-firm dummy variable, and earnings management among the firms included in the study.

Managerial Ownership as a Moderating Variable

The Moderated Regression Analysis results demonstrate that the interaction terms between managerial ownership and each independent variable, namely accounting conservatism, leverage, and audit quality, are statistically insignificant because their probability values exceed the 0.05 significance level. Although the estimated interaction coefficients vary in direction, with some being negative and another positive, none meet the required statistical criterion. Therefore, these coefficients cannot be regarded as evidence that managerial ownership performs a moderating function.

Accordingly, hypotheses H4, H5, and H6 are rejected. The proposition that managerial ownership weakens the relationships between accounting conservatism, leverage, audit quality, and earnings management is therefore not empirically supported. An insignificant interaction coefficient does not provide a sufficient statistical basis for claiming the existence of a moderating effect. At the same time, the absence of statistical significance does not invalidate established theoretical perspectives such as Agency Theory. It only indicates that managerial ownership was not demonstrated to function as a moderator within the specific sample and research design employed.

The discussion has consequently been reformulated to prevent conclusions that extend beyond the statistical evidence. The positive and significant relationship between accounting conservatism and earnings management is interpreted using an appropriate theoretical explanation. Conversely, leverage and audit quality are treated as variables whose effects are not statistically supported by the tested model. Managerial ownership is likewise no longer characterized as an effective moderating variable. This interpretation ensures that the study's conclusions remain consistent with its empirical results and comply with rigorous standards of statistical inference.

4. CONCLUSIONS AND SUGGESTIONS

This study concludes that only Accounting Conservatism demonstrates a statistically significant positive relationship with Earnings Management, while Leverage, Audit Quality, and the moderating effect of Managerial Ownership are not statistically significant. These findings suggest that conservatism may contribute to manipulation risk, whereas the other governance mechanisms examined do not show empirical support within the current model.

Several limitations must be acknowledged. The study relies on the Beneish M-Score as a proxy for manipulation risk, employs a Big Four dummy to measure audit quality, and is based on a relatively small sample size. In addition, the absence of robustness checks and potential endogeneity issues limits the generalizability of the results.

The significant effect of conservatism should be interpreted within the Beneish-based manipulation risk framework, where financial ratio indicators capture the likelihood of misstatement rather than discretionary accrual behavior. Future research is encouraged to incorporate accrual-based earnings management models as robustness tests or alternative dependent variables, expand the sample size, and refine measurement proxies to strengthen the validity and comparability of findings across different contexts.

REFERENCES

- Ahmad, A. M., Kwanbo, L. M., Hassan, S. U., & Umar, M. S. (2023). Moderating Effect of Audit Committee on the Relationship Between Audit Quality and Earnings Management of Listed Non-Financial Services Firms in Nigeria. *Gusau Journal of Accounting and Finance*, 4(1), 216–236. <https://doi.org/10.57233/gujaf.v4i1.208>
- Alia, M. A., Ismail, R., Taha, B., & Takrore, N. (2020). The Relationship between Accounting Conservatism and Earnings Management in the Palestinian Corporations. *Journal of Al-Aqsa University*, 24(2), 55–79. <https://doi.org/10.34065/1262-024-002-003>
- Alodat, A. Y., Salleh, Z., Hashim, H. A., & Sulong, F. (2022). Corporate governance and firm performance: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*, 20(5), 866–896. <https://doi.org/10.1108/JFRA-12-2020-0361>
- Alsmady, A. (2023). The moderating role of audit quality between earning management and sustainable investment opportunities: Evidences from gulf cooperation council countries. *International Journal of Applied Economics, Finance and Accounting*, 16, 18–32. <https://doi.org/10.33094/ijaefa.v16i1.874>
- Alves, S., & Carmo, C. (2022). Audit Committee, External Audit and Accounting Conservatism: Does Company'S Growth Matter?. *Journal of Governance and Regulation*, 11(3), 17–27. <https://doi.org/10.22495/jgrv11i3art2>
- Amah, N., Taufiq, A. R., & Diyanto, A. O. P. (2023). Peran Mediasi Manajemen Laba Diantara Struktur Modal Dan Kinerja Keuangan. *Jurnal Reviu Akuntansi Dan Keuangan*, 13(3), 614–633. <https://doi.org/10.22219/jrak.v13i3.27712>

- Amin, A., & Kurniadiati, I. (2022). The Effect of Accounting Conservatism on Earnings Management with Risk Management as Intervening. *International Journal of Economics, Business and Management Research*, 6(07), 266–279. <https://doi.org/10.51505/ijebmr.2022.6719>
- Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *The Journal of Finance*, 55(1), 81–106. <https://doi.org/10.1111/0022-1082.00201>
- Ardiany, Y., Lukviarman, N., Hamidi, M., & Luthan, E. (2023). Conservatism as a moderating variable on the determinants of earnings management. *Investment Management and Financial Innovations*, 20(4), 323–334. [https://doi.org/10.21511/imfi.20\(4\).2023.26](https://doi.org/10.21511/imfi.20(4).2023.26)
- Arellano, M. (1987). Computing robust standard errors for within-groups estimators. *Oxford Bulletin of Economics and Statistics*, 49(4), 431–434. <https://doi.org/10.1111/j.1468-0084.1987.mp49004006.x>
- Arhinful, R., & Radmehr, M. (2023). The effect of financial leverage on financial performance: evidence from non-financial institutions listed on the Tokyo stock market. *Journal of Capital Markets Studies*, 7(1), 53–71. <https://doi.org/10.1108/JCMS-10-2022-0038>
- Baltagi, B. H. (2021). *Econometric analysis of panel data* (6th ed.). Springer. <https://doi.org/10.1007/978-3-030-53953-5>
- Bawuah, I. (2024). Audit committee effectiveness, audit quality and earnings management: evidence from Ghana. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2315318>
- Boli, H. A. R. R., & Ferdian, R. I. (2025). The role of corporate governance mechanism, financial distress, and firm performance on earnings management with audit quality as a moderating variable. *SINERGI: Jurnal Riset Ilmiah*, 2(4), 2023–2044. <https://doi.org/10.62335/sinergi.v2i4.1143>
- Brennan, N. M. (2021). Connecting earnings management to the real World: What happens in the black box of the boardroom? *British Accounting Review*, 53(6), 101036. <https://doi.org/10.1016/j.bar.2021.101036>
- Breusch, T. S. (1978). Testing for autocorrelation in dynamic linear models. *Australian Economic Papers*, 17(31), 334–355. <https://doi.org/10.1111/j.1467-8454.1978.tb00635.x>
- Breusch, T. S., & Pagan, A. R. (1980). The Lagrange multiplier test and its applications to model specification in econometrics. *The Review of Economic Studies*, 47(1), 239–253. <https://doi.org/10.2307/2297111>
- Chow, G. C. (1960). Tests of equality between sets of coefficients in two linear regressions. *Econometrica*, 28(3), 591–605. <https://doi.org/10.2307/1910133>
- Drajat, D. P., & Nengzih, N. (2025). The effect of financial distress, leverage, and firm size on earnings management. *Journal of Management, Economic, and Financial*, 3(2), 68–79. <https://doi.org/10.59261/jmef.v3i2.7>
- Ghazalat, A., Abu-Serdaneh, J., & Majaly, H. (2023). The Relationship between Accounting Conservatism and Earning Management in Emerging Markets: The Moderating Role of Size. *Industrial Engineering & Management Systems*, 22(2), 132–143. <https://doi.org/10.7232/iems.2023.22.2.132>
- Ghozali, I., & Ratmono, D. (2017). Analisis Multivariat dan Ekonometrika dengan EvIEWS 10. In Semarang: Badan Penerbit Universitas Diponegoro.
- Givoly, D., & Hayn, C. (2000). The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative? *Journal of Accounting and Economics*, 29(3), 287–320. [https://doi.org/10.1016/S0165-4101\(00\)00024-0](https://doi.org/10.1016/S0165-4101(00)00024-0)

- Godfrey, L. G. (1978). Testing against general autoregressive and moving average error models when the regressors include lagged dependent variables. *Econometrica*, 46(6), 1293–1301. <https://doi.org/10.2307/1913829>
- Gunarianto, Puspitosarie, E., & Susilo, S. H. (2023). Company value analysis: Sales, assets, growth opportunities and leverage in LQ-45 companies (Indonesia Stock Exchange). *Investment Management and Financial Innovations*, 20(4), 385–398. [https://doi.org/10.21511/imfi.20\(4\).2023.31](https://doi.org/10.21511/imfi.20(4).2023.31)
- Hartam, W., & Kresnawati, E. (2022). Accounting Conservatism and Earnings Management: Moderating Effect of the Corporate Life Cycle. *Proceedings of the International Conference on Sustainable Innovation Track Accounting and Management Sciences (ICOSIAMS 2021)*, 201(Icosiams 2021), 295–303. <https://doi.org/10.2991/aebmr.k.211225.041>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46(6), 1251–1271. <https://doi.org/10.2307/1913827>
- Healy, P. M., & Wahlen, J. M. (1999). A Review of the Earnings Management Literature and Its Implications for Standard Setting. *Accounting Horizons*, 13(4), 365–383. <https://doi.org/10.2308/acch.1999.13.4.365>
- Hejranijamil, M. (2025). Accounting conservatism and uncertainty in business environments: using financial data of listed companies in the Tehran stock exchange. 5(2), 179–194. <https://doi.org/10.1108/AJAR-04-2020-0027>
- Heling, P., & Lastanti, H. S. (2024). The influence of financial distress, earnings management, and financial performance on firm value with good corporate governance as a moderating variable. *Eduvest: Journal of Universal Studies*, 4(10), 9375–9393. <https://doi.org/10.59188/eduvest.v4i10.1494>
- Héricourt, J., & Poncet, S. (2015). Exchange Rate Volatility, Financial Constraints, and Trade: Empirical Evidence from Chinese Firms. *World Bank Economic Review*, 29(3), 550–578. <https://doi.org/10.1093/wber/lht035>
- Hong, N. T. H., Anh, N. T., Hoang, N. T. V., & Minh, D. N. (2023). Corporate governance, external financing, and earnings management: new evidence from an emerging market. *Future Business Journal*, 9(1). <https://doi.org/10.1186/s43093-023-00206-3>
- Indrawan, V., Agoes, S., Pangaribuan, H., & Popoola, O. M. J. (2018). The impact of audit committee, firm size, profitability, and leverage on income smoothing. *Indian-Pacific Journal of Accounting and Finance*, 2(1), 61–74. <https://doi.org/10.52962/ipjaf.2018.2.1.42>
- Indriani, S., & Ramli, A. H. (2024). Earnings management, leverage, good corporate governance, and tax avoidance. *Jurnal Ilmiah Akuntansi Kesatuan*, 12(1), 93–106. <https://doi.org/10.37641/jiakes.v12i1.2064>
- Istianingsih. (2021). Earnings Quality as a link between Corporate Governance Implementation and Firm Performance Earnings Quality as a link between Corporate Governance Implementation and. *International Journal of Management Science and Engineering Management*, 16(4), 290–301. <https://doi.org/10.1080/17509653.2021.1974969>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Krismiaji, & Astuti, R. P. (2020). Accounting conservatism and earnings management—Indonesian evidence. *Jurnal Bisnis dan Akuntansi*, 22(1), 113–120. <https://doi.org/10.34208/jba.v22i1.631>

- Krismiaji, K., & Sumayyah, S. (2023). Audit quality, audit opinion, and earnings management: Indonesian evidence. *Journal of Business and Information Systems*, 4(2), 103–113. <https://doi.org/10.36067/jbis.v4i2.141>
- Kusumawati, E., Wahyuningtyas, A. P., & Sari, S. P. (2022). the Effect of Growth Opportunity, Profitability, Csr, Firm Size, and Leverage on Earning Response Coefficient. *Riset Akuntansi Dan Keuangan Indonesia*, 309–320. <https://doi.org/10.23917/reaksi.v7i3.22028>
- Le, L. Q. (2025). The influence of audit quality on real earnings management: Do leverage and cash flow matter? *Journal of Economics and Development*, 27(2), 144–157. <https://doi.org/10.1108/JED-05-2024-0190>
- Levia, C. M. & Wahyudi, I. (2025). The Influence of Tax Planning, Profitability and Cost Operations For Earning Management. *Best Journal of Administration and Management*, 3(3), 156–169. <https://doi.org/10.56403/bejam.v3i3.271>
- Li, H. (2019). Conservatism, Earnings Management and R & D Capitalization. *International Journal of Financial Research*, 10(2). <https://doi.org/10.5430/ijfr.v10n2p52>
- Lubis, R. K., Darmadi, S., Pratiwi, T. A., Falaqia, P., Lutvian, S., Firas, R., Karunia, R., Darmadi, S., Pratiwi, T. A., & Falaqia, P. (2025). Managerial ownership as a corporate governance mechanism in shaping leverage decisions: insights from Indonesia. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2473043>
- Luthfiatun Niswah, & Afrizal Nilwan. (2024). Tax Avoidance: an Agency Theory Perspective. *International Journal of Accounting, Management, Economics and Social Sciences (IJAMESC)*, 2(4), 1242–1258. <https://doi.org/10.61990/ijamesc.v2i4.306>
- Mohajan, H. K. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4), 50–79. <https://doi.org/10.26458/jedep.v9i4.679>
- Mubaraq, M., Rahayu, S. M., Saifi, M., & Darmawan, A. (2021). Does the implementation of corporate governance moderate the relationships of ownership structure, capital structure and firm values of listed manufacturing companies in Indonesia? In *Proceedings of the International Conference on Strategic Issues of Economics, Business and Education (ICoSIEBE 2020)* (pp. 163–168). Atlantis Press. <https://doi.org/10.2991/aebmr.k.210220.029>
- Mwangi, J. (2024). Effect of audit quality on earnings management practices. *American Journal of Accounting*, 6(1), 1–12. <https://doi.org/10.47672/ajacc.1783>
- Nadya, K. (2024). 77 Saham Sektor Bahan Baku di Bursa Efek Indonesia, Papan Utama dan Pengembangan. IDXChannel.Com. <https://www.idxchannel.com/market-news/77-saham-sektor-bahan-baku-di-bursa-efek-indonesia-papan-utama-dan-pengembangan>
- Nalarreason, K. M., T S., & Mardiaty, E. (2019). Impact of Leverage and Firm Size on Earnings Management in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 6(1), 19. <https://doi.org/10.18415/ijmmu.v6i1.473>
- Nukala, V. B., & Rao, S. S. P. (2021). Role of debt - to - equity ratio in project investment valuation, assessing risk and return in capital markets. *Future Business Journal*. <https://doi.org/10.1186/s43093-021-00058-9>
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673–690. <https://doi.org/10.1007/s11135-006-9018-6>
- Ogabo, B., Ogar, G., & Nuipoko, T. (2021). Ownership Structure and Firm Performance: The Role of Managerial and Institutional Ownership-Evidence from the UK. *American Journal of*

-
- Industrial and Business Management*, 11, 859-886.
<https://doi.org/10.4236/ajibm.2021.117053>
- Paidar-Ardakani, H. (2003). Conservative Effect On Income Management And Capital Structure Of Listed Companies In Tehran Stock Exchange Hossein Paidar-Ardakani, Department of Ardakan, Azad Islamic University. 590-600.
https://openurl.ebsco.com/EPDB%3Agcd%3A1%3A6587473/detailv2?sid=ebsco%3Aplink%3Acrawler-gcd&id=ebsco%3Agcd%3A193294955&crl=f&jrnl=22263209&link_origin=www.google.com
- Patriandari, P., Rianto, R., & Ristianti, A. (2023). The Impact of Good Corporate Governance on Financial Distress in Transportation Sector Companies in Indonesia. *Quantitative Economics and Management Studies*, 4(3). <https://doi.org/10.35877/454ri.qems1708>
- Pradipta, A., & Lisnawati, L. (2025). Profitability Under Pressure : The Double-Edged Sword of Leverage and Capital Intensity on Earnings Management. *International Research Journal of Economics and Management Studies*, 4(7), 71-79.
<https://doi.org/10.56472/25835238/IRJEMS-V4I7P110>
- Prawida, N., & Sutrisno, S. (2021). Leverage, profitability, corporate governance mechanism and earning management: Cases in manufacturing company in Indonesia Stock Exchange. *Asian Management and Business Review*, 1(1), 35-45.
<https://doi.org/10.20885/AMBR.vol1.iss1.art4>
- Ramsah, H., Sutarjo, A., & Yani, M. (2023). Pengaruh praktik *corporate governance* dan prinsip konservatisme terhadap manajemen laba (Study empiris pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia). *Ekasakti Pareso Jurnal Akuntansi*, 1(3), 226-234.
<https://doi.org/10.31933/epja.v1i3.908>
- Restuningdiah, N., & Sidharta, E. A. (2023). The Development of Earning Management in Indonesia: A Systematic Literature Review. *Asia Pacific Journal of Management and Education*, 6(2), 68-78. <https://doi.org/10.32535/apjme.v6i2.2094>
- Ritonga, Z., Inuzula, L., & Mulyadi, M. (2023). The effect of accounting conservatism, company size and good corporate governance on the quality of company profits. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, 7(1), 23-34.
<https://doi.org/10.36555/jasa.v7i1.2122>
- Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill-Building Approach (Seventh Ed). *John Wiley & Sons, Inc.*
- Sethi, P., Aggarwal, A., Vikram, A., & Saklani. (2022). Corporate governance and earnings management: A survey of literature. *Journal of Business Studies*, 12.
<https://doi.org/10.19030/jabr.v29i2.7646>
- Singh, M., & Davidson, W. N., III. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, 27(5), 793-816.
[https://doi.org/10.1016/S0378-4266\(01\)00260-6](https://doi.org/10.1016/S0378-4266(01)00260-6)
- Sudradjat, Ishak, J. F., & Nugraha, A. A. (2023). Determinants of banking sector audit report lag: Evidence from Indonesia. *Jurnal ASET (Akuntansi Riset)*, 15(1), 167-176.
<https://doi.org/10.17509/jaset.v15i1.57366>
- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48(4), 817-838. <https://doi.org/10.2307/1912934>
- Winarno, W. (2015). Analisis Ekonometrika dan Statistika dengan EViews. In Analisis ekonometrika dan statistika dengan Eviews.
-

-
- Winarno, W. W., Krismiaji, K., Handayani, H., & Purwantini, M. (2022). Earnings management, board of directors, and earnings persistence: Indonesian evidence. *Jurnal Akuntansi & Auditing Indonesia*, 26(1), 41–53. <https://doi.org/10.20885/jaai.vol26.iss1.art5>
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data* (2nd ed.). The MIT Press.
- Zadeh, F. N., Askarany, D., & Asl, S. A. (2022). Accounting Conservatism and Earnings Quality. *Journal of Risk and Financial Management*, 15(9). <https://doi.org/10.3390/jrfm15090413>