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The Effect of Good Corporate Governance on Earnings Management with Audit Quality as a Moderating Variable

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ABSTRACT
This study investigated the effect of good corporate governance on earnings management, with audit quality serving as a moderating variable. The research focused on energy sector companies listed on the Indonesia Stock Exchange. In this context, corporate governance mechanisms were measured through independent commissioners, institutional ownership, managerial ownership, and the audit committee. Earnings management was operationalized through discretionary accruals using the modified Jones model. The results demonstrated that independent commissioners and audit quality exerted a significant negative effect on earnings management, confirming their roles in strengthening oversight functions and limiting managerial opportunistic behavior. Conversely, institutional ownership and managerial ownership showed no significant effect on earnings management. Interestingly, the audit committee exhibited a significant positive effect, which contradicted the initial hypothesis. Regarding the interaction effects, audit quality significantly moderated the relationships between independent commissioners, institutional ownership, and managerial ownership with earnings management, operating as a quasi-moderator. However, audit quality could not moderate the relationship involving the audit committee and acted only as a predictor variable. In conclusion, external audit quality interacts critically with internal governance structures to minimize agency conflicts and restrain discretionary accounting choices within capital-intensive and highly volatile sectors.

1. Introduction

Earnings management represents opportunistic managerial behavior that exploits the flexibility available in accounting standards and managerial judgment to influence reported earnings for specific objectives (Cao et al., 2023; Comporek, 2023). Within the framework of agency theory, this practice is closely associated with conflicts of interest and information asymmetry between management as the agent and shareholders or other capital providers as principals, which creates opportunities for managers to exercise discretion over financial reporting (Suhadak et al., 2022). This manipulation phenomenon is particularly relevant in the energy sector, which is characterized by capital-intensive operations, considerable uncertainty, complex cost structures, and sensitivity to global commodity-price movements. Anderson et al. (2023), for example, show that energy firms exhibit relatively high cost uniqueness, reflecting the complexity of their cost structures, while Bugshan et al. (2022) demonstrate that oil-price uncertainty is associated with firms' earnings-management decisions. Evidence from energy firms also indicates that managers may use discretionary accruals and other earnings-management practices to influence reported financial performance (Khuong et al., 2020). In Indonesia, cases of financial reporting problems involving energy companies, such as PT Berau Coal Energy Tbk, further illustrate the potential consequences of weak monitoring and financial reporting controls. Therefore, stronger integration between internal corporate governance mechanisms and external monitoring is required to restrict managerial discretion and safeguard the credibility of financial information for stakeholders.

Internally, Good Corporate Governance (GCG) functions as a monitoring system through mechanisms such as independent boards, institutional ownership, managerial ownership, and audit committees, which are intended to constrain managerial opportunism and improve financial reporting quality (Asmaranti et al., 2024; Karina, 2021). However, prior empirical evidence regarding the effectiveness of these mechanisms in reducing earnings management remains mixed. Some studies report that stronger governance structures, particularly board independence and effective audit committees, are associated with lower levels of earnings management (Pandey et al., 2022). In contrast, other studies find that institutional ownership, managerial ownership, board composition, and audit committee characteristics do not consistently constrain earnings management, suggesting that the formal presence of governance mechanisms does not necessarily ensure effective monitoring (Suhadak et al., 2022). Such inconsistencies indicate that internal governance mechanisms may require complementary external monitoring to strengthen their effectiveness in limiting managerial discretion.

The novelty of this study lies in examining audit quality, proxied by Big Four audit firms, as a moderating variable in the relationship between Good Corporate Governance (GCG) mechanisms and earnings management. Unlike previous studies that have primarily examined the direct effects of corporate governance or audit quality, this study uses Moderated Regression Analysis (MRA) to assess whether external audit quality strengthens internal governance mechanisms. This issue is particularly relevant in the energy sector, where commodity price volatility, complex accounting estimates, and substantial discretionary accruals may increase the risk of earnings management. By examining the interaction between internal governance and external audit quality, this study provides further evidence on whether high-quality audits can strengthen GCG mechanisms that may otherwise function primarily as formal regulatory compliance.

A prominent corporate governance failure within the Indonesian energy sector occurred in 2017 when PT Berau Coal Energy Tbk (BRAU) was officially delisted from the Indonesia Stock Exchange (IDX). This regulatory sanction was triggered by the company's persistent non-compliance with financial reporting obligations. An investigation by the Financial Services Authority (OJK) revealed substantial financial misconduct, highlighting that the company had engaged in financial statement manipulation amounting to approximately USD 49 million in 2011 and USD 152 million in 2012 through unexplained fund utilization. Additionally, the firm was implicated in inflating land acquisition costs for a 1,000-hectare area in Kalimantan, which severely compromised its liquidity and culminated in a debt default of approximately IDR 6 trillion. Due to insolvency, the financial restructuring and subsequent legal proceedings were transferred to the company's regional headquarters under the jurisdiction of the High Court of Singapore (Lukman & Fayzhall, 2018).

Based on the problem formulation and the theoretical gaps outlined above, the primary focus of this study is designed to address fundamental questions regarding corporate governance effectiveness. Specifically, this study aims to examine and analyze the influence of independent commissioners, institutional ownership, managerial ownership, and the audit committee on earnings management practices, while comprehensively proving the role of audit quality in moderating the relationship between these internal GCG instruments and earnings management among energy sector companies listed on the Indonesia Stock Exchange (IDX). By focusing the measurement of earnings management on income-increasing earnings management through a discretionary accruals proxy, the findings of this study are expected to offer an empirical contribution to mapping the interplay between internal and external oversight in modern corporate governance.

Agency Theory

This study is grounded in Agency Theory, which assumes a separation of roles between capital providers (the principal) and company managers (the agent). Within the energy industry, which is fraught with operational uncertainties and complex accounting estimations, information asymmetry frequently occurs because managers possess more comprehensive internal data access than external investors. This condition triggers conflicts of interest, where managers tend to act opportunistically for personal gain such as maximizing bonuses or securing managerial positions by manipulating accrual figures in financial statements, a practice known as earnings management. To bridge these conflicts and minimize agency costs, a multi-layered monitoring mechanism is required, comprising both internal corporate governance structures (Good Corporate Governance) and external quality assurance mechanisms (audit quality).

Hypotheses Development

The independent board of commissioners and earnings management

The independent board of commissioners is one of the key internal corporate governance mechanisms responsible for monitoring managerial actions and protecting shareholders' interests. From an agency theory perspective, independent commissioners can reduce agency problems by providing objective oversight over management decisions and limiting opportunities for managers to use accounting discretion for personal interests. Their independence from management allows them to exercise greater professional judgment and challenge financial reporting practices that may not reflect the firm's underlying economic condition. Prior studies generally indicate that greater board independence is associated with lower earnings management. Bansal (2021) argues that independent directors strengthen the board's monitoring function and can constrain managerial discretion in financial reporting. Similarly, Amin and Cumming (2023) show that increases in the proportion of independent non-executive directors are associated with improvements in earnings quality and reductions in earnings management. Karina (2021) also reports that board independence is commonly viewed as an effective governance mechanism for monitoring management and limiting earnings management practices. These findings support the view that a higher proportion of independent commissioners can strengthen monitoring effectiveness and reduce managers' opportunities to manipulate reported earnings. Therefore, the following hypothesis is proposed:

H1: The independent board of commissioners has a negative effect on earnings management.

Institutional ownership and earnings management

Ownership structure represents another internal governance mechanism that can influence managerial incentives and monitoring effectiveness. Institutional ownership refers to shareholdings held by institutions such as financial institutions, investment companies, pension funds, and other corporate investors. From an agency theory perspective, institutional investors are generally expected to exercise stronger monitoring because they possess greater resources, expertise, and incentives to evaluate managerial decisions and financial reporting practices. Their monitoring role can reduce information asymmetry and limit managers' opportunities to manipulate reported earnings. Alexander (2019) notes that institutional ownership can strengthen management supervision and reduce agency conflicts between shareholders and managers. Empirical studies also provide evidence that higher institutional ownership may be associated with lower earnings management, although the results across studies remain mixed. Therefore, the following hypothesis is proposed:

H2: Institutional ownership has a negative effect on earnings management.

Managerial ownership and earnings management

Managerial ownership operates through a different governance mechanism. When managers also hold shares in the company, their interests become more closely aligned with those of shareholders because they participate directly in both the benefits and risks arising from corporate decisions. Under agency theory, this ownership alignment is expected to reduce conflicts of interest and discourage managers from engaging in short-term earnings manipulation that could adversely affect the firm's long-term value. Prior literature supports this incentive-alignment argument. Jesslyn et al. (2021) explain that managerial ownership can reduce managers' motivation to engage in earnings management by minimizing conflicts of interest between managers and shareholders. Similarly, Nuryana (2022) reports a significant negative relationship between managerial ownership and earnings management, indicating that higher managerial share ownership may reduce incentives to manipulate earnings. Although some studies report different results, the alignment-of-interest perspective provides a theoretical basis for expecting managerial ownership to constrain opportunistic reporting behavior. Accordingly, the following hypothesis is proposed:

H3: Managerial ownership has a negative effect on earnings management.

The audit committee and earnings management

The audit committee represents an important internal corporate governance mechanism responsible for overseeing the financial reporting process and supporting the board in monitoring management. From an agency theory perspective, the audit committee helps reduce information asymmetry and agency conflicts by providing more focused oversight of financial reporting, internal controls, and interactions with external auditors. An effective audit committee is expected to critically evaluate accounting policies, significant estimates, and financial reporting judgments made by management, thereby reducing opportunities for opportunistic earnings manipulation. Prior research supports the monitoring role of the audit committee in improving financial reporting quality. Al-Shaer and Zaman (2021) show that greater transparency in audit committee reporting is associated with lower earnings management, suggesting that effective audit committee monitoring can strengthen the quality of financial reporting. Eriandani et al. (2020) similarly argue that an effective audit committee can reduce agency costs and constrain opportunistic managerial behavior, although the strength of this effect may depend on the characteristics of the committee and the external auditor. In addition, Herranz et al. (2022) demonstrate that audit committee competence, particularly relevant audit experience, is associated with lower earnings management. These findings indicate that effective audit committee oversight can restrict managerial discretion over financial reporting and reduce the likelihood of earnings manipulation. Accordingly, the following hypothesis is proposed:

H4: The audit committee has a negative effect on earnings management.

Audit quality has and earnings management

Audit quality represents an important external governance mechanism that can mitigate agency problems arising from information asymmetry between managers and shareholders. From an agency theory perspective, external auditors provide independent verification of financial statements and thereby reduce managers' ability to exploit accounting discretion for opportunistic purposes. High-quality auditors are expected to be more capable of identifying material misstatements and questionable accrual choices, while stronger auditor independence increases the likelihood that detected irregularities will be challenged and reported (Özcan, 2019; Zakaria et al., 2022)

In the earnings management literature, Big Four audit firms are frequently used as a proxy for higher audit quality because they generally possess greater technical resources, broader professional expertise, more developed audit methodologies, and stronger reputational incentives to protect audit quality. These characteristics are expected to strengthen their ability to detect aggressive accounting choices and resist managerial pressure. Prior studies therefore commonly predict a negative association between audit quality and accrual-based earnings management Özcan (2019). In the Indonesian mining context, Wiratno et al. (2023) similarly operationalize audit quality using Big Four affiliation when examining accrual earnings management. Nevertheless, empirical evidence is not entirely consistent, for instance Thi (2023), finds that Big Four affiliation does not necessarily constrain earnings management in the Vietnamese market. Despite these mixed findings, the theoretical monitoring argument suggests that higher-quality external audits should restrict managerial discretion in financial reporting. Accordingly, the following hypothesis is proposed:

H5: Audit quality has a negative effect on earnings management.

The Moderating Role of Audit Quality

The effectiveness of internal corporate governance mechanisms may vary because monitoring structures can be weakened by information asymmetry, conflicts of interest, or the merely formal fulfillment of governance requirements. From an agency theory perspective, external auditing can complement internal governance by providing independent verification of financial information and reducing the informational advantage of management. In this regard, higher audit quality may strengthen the effectiveness of internal monitoring mechanisms in constraining opportunistic earnings management. Suhadak et al. (2022) similarly argue that high-quality external auditing can support the implementation of internal corporate governance and reduce information asymmetry, although their empirical results indicate that such moderating effects are not always significant. Thus, the complementary role of audit quality remains theoretically plausible but empirically unresolved.

Independent commissioners depend on reliable financial information to evaluate managerial decisions and monitor the financial reporting process. When financial statements are examined by high-quality external auditors, independent commissioners may receive more credible assurance regarding accounting estimates, accrual choices, and potential reporting irregularities. This external verification can enhance their ability to challenge opportunistic managerial reporting. Therefore, the combination of independent board oversight and higher audit quality is expected to impose stronger constraints on earnings management than independent monitoring alone. Accordingly:

H6: Audit quality strengthens the negative effect of the independent board of commissioners on earnings management.

Institutional investors also rely substantially on credible financial information when monitoring managerial performance. Their monitoring capacity may be weakened when accounting information is opaque or difficult to verify. High-quality external auditing can reduce this information problem by increasing the credibility of financial reporting and providing additional assurance regarding managerial accounting choices. Such assurance may enable institutional shareholders to exercise more effective monitoring and exert stronger pressure against opportunistic reporting. Hence, institutional monitoring and external audit quality are expected to function as complementary governance mechanisms. Accordingly:

H7: Audit quality strengthens the negative effect of institutional ownership on earnings management.

Managerial ownership is expected to reduce agency conflicts by aligning managers' economic interests with those of shareholders. However, ownership alignment does not completely eliminate managerial discretion or information advantages. External auditing can complement this incentive-based mechanism by independently scrutinizing managerial accounting judgments and limiting opportunities to exploit reporting discretion. Mardnly et al. (2021), for example, examine the combined role of managerial ownership and external audit quality as two governance mechanisms in constraining earnings management. Accordingly, when stronger managerial ownership is accompanied by higher audit quality, the combined monitoring and incentive effects are expected to further discourage opportunistic earnings management. Therefore:

H8: Audit quality strengthens the negative effect of managerial ownership on earnings management.

The audit committee and external auditor have particularly complementary roles because both are directly involved in financial reporting oversight. The audit committee monitors the reporting process and internal controls, whereas the external auditor provides independent assurance concerning the reliability of reported accounting information. Evidence from Eriandani et al. (2020) indicates that the interaction between audit committee effectiveness and Big Four auditors can reduce earnings management, supporting the view that internal and external monitoring mechanisms may reinforce one another. Mardessi (2021) likewise explicitly examines audit quality as a moderator of the relationship between audit committee characteristics and financial reporting quality. Therefore, stronger external audit quality is expected to enhance the audit committee's ability to identify and constrain aggressive accounting practices. Accordingly:

H9: Audit quality strengthens the negative effect of the audit committee on earnings management.

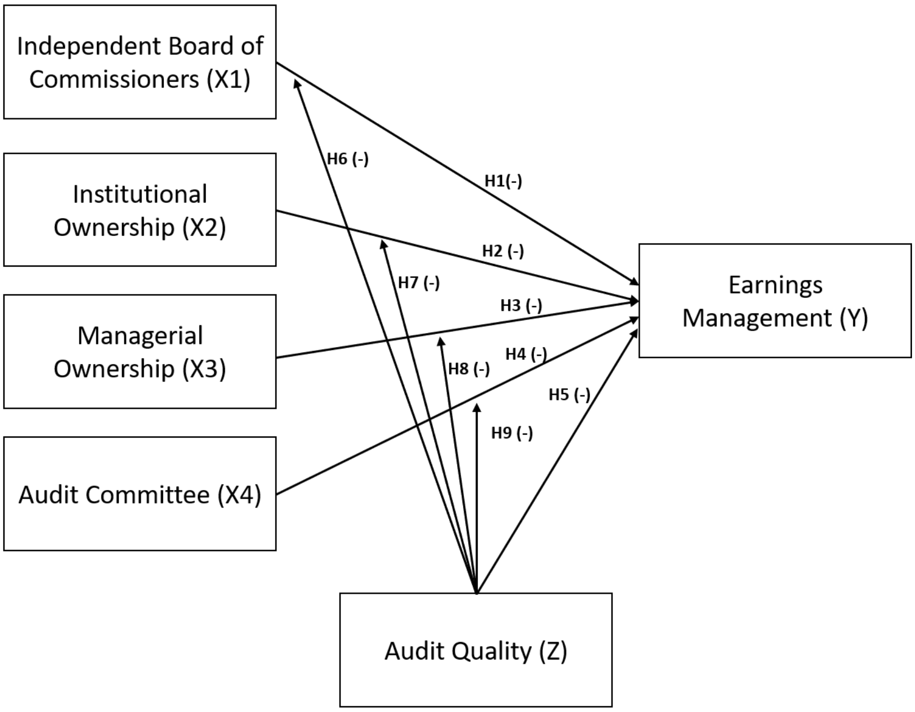

Figure 1. Conceptual Framework

2. Methods

This study employs an explanatory quantitative approach aimed at examining and analyzing causal relationships and moderating interactions among the variables under investigation. The research objective focuses on the practice of earnings management (specifically income-increasing earnings management) and the effectiveness of internal and external corporate oversight mechanisms. The dependent variable tested is earnings management, which is proxied by discretionary accruals using the Modified Jones Model. The independent variables consist of four internal Good Corporate Governance (GCG) components: the independent board of commissioners (the percentage of outside commissioners relative to the total board size), institutional ownership (the proportion of shares held by institutions), managerial ownership (the proportion of shares held by directors and commissioners), and the audit committee (the total number of audit committee members). Meanwhile, audit quality is positioned as both a direct independent variable and a moderating variable (a quasi-moderator), measured using a dummy variable where a value of 1 is assigned to companies audited by a Big Four public accounting firm and 0 for non-Big Four firms. Table 1 displays the specific criteria used for selecting the sample.

Table 1. The Research Sampling Criteria

Criteria	Amount
Energy sector companies listed on the IDX for the 2020–2024 period	87
Companies that were not continuously listed throughout the observation period due to permanent delisting	(4)
Companies that do not present complete data on GCG variables and other research variables	(61)
Number of Samples (n)	**22**
Research Years (t)	5
Number of Research Samples (n × t)	**110**

The empirical research model is designed to test the proposed hypotheses implicitly using a Moderated Regression Analysis (MRA) approach. The multiple linear regression and interaction model in this study is formulated into the following mathematical equation:

$$Y = \alpha + \beta_1 IB + \beta_2 IO + \beta_3 MO + \beta_4 AC + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(1)}$$

$$Y = \alpha + \beta 1IB + \beta 2IO + \beta 3MO + \beta 4AC + \beta 5AQ + \beta 6IB(AQ) + \beta 7IO(AQ) + \beta 8MO(AQ) + \beta 9AC(AQ) + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(2)}$$

Description:
Y : Earnings Management
α : Constant
β : Regression coefficients
IB : Independent Board of Commissioners
IO : Institutional Ownership
MO : Managerial Ownership
AC : Audit Committee
AQ : Audit Quality
ε : error

Although the dataset has a panel structure, this study employs pooled ordinary least squares (OLS) regression because the primary objective is to examine the overall association among variables rather than firm-specific or time-specific effects. Furthermore, the relatively small sample size may reduce the efficiency and stability of fixed-effects or random-effects estimators. Therefore, pooled regression is considered appropriate for the purposes of this study.

The data analysis techniques used in this study are carried out sequentially utilizing SPSS statistical software. The first step begins with descriptive statistical analysis to provide a general overview of the minimum, maximum, mean, and standard deviation values of all observed variables. Subsequently, classic assumption tests are rigorously conducted to ensure that the regression model meets the BLUE (Best Linear Unbiased Estimator) criteria, which include normality tests (using the Kolmogorov-Smirnov test), multicollinearity tests (via Tolerance and Variance Inflation Factor values), heteroscedasticity tests (using the Glejser test), and autocorrelation tests (using the Durbin-Watson or Runs Test). The final stage involves hypothesis testing, which includes partial significance testing (t-test) to verify the direct effects of GCG and the moderating interaction effects of audit quality, simultaneous significance testing (F-test) to evaluate overall model fitness, and coefficient of determination analysis (R^2 or Adjusted R^2) to measure the extent to which the independent and moderating variables explain the variance in the earnings management variable.

3. Results

Descriptive Statistics of Variables

An overarching summary of the features of the data used in this investigation is offered by descriptive statistical analysis. Researchers may learn about data distribution and trends using this technique, which looks at minimum, maximum, mean, and standard deviation values. Before moving on to more advanced inferential analysis, it is crucial to understand the initial condition of each variable, and this information provides an important basis for further analysis. As shown in Table 2, the descriptive statistics for all study variables are summarized.

Table 2. Descriptive Statistics

Variabel	N	Min.	Maks.	Mean.	Std. Deviation
X1	110	.50000	.86603	.6391783	.07399265
X2	110	.31623	.97925	.7983123	.14965718
X3	110	.00495	.40082	.1146535	.10896995
X4	110	2	3	2.19	.395
Z	110	0	1	.67	.471
Y	110	-.43649	.30659	-.0140240	.11136339
Valid N (listwise)	110				

Source: Output SPSS 25

Descriptive statistics provides a high-level overview of the characteristics of the data used in this study. This method examines the minimum, maximum, mean, and standard deviation figures; it may teach researchers about data distribution and patterns. Understanding the initial state of each variable is essential prior to advancing to more complex inferential analysis. Table 2 displays the aggregated descriptive statistics for all of the research variables.

Multiple Linear Regression Analysis

Table 3. Results of The Multiple Linear Regression Test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-.072	.230		-2.311	.011
	X1	-.124	.161	-.082	-3.769	.000
	X2	.112	.126	.150	.886	.378
	X3	.109	.154	.107	.711	.479
	X4	.016	.034	.057	3.476	.002

a. Dependent Variable: Y

Source: Output SPSS 25

Based on the results of the multiple linear regression analysis, the research model produces the following regression equation:

$$Y = -0{,}072 - 0{,}124X1 + 0{,}112X2 + 0{,}109X3 + 0{,}016X4 + \varepsilon$$

The multiple linear regression analysis yields specific directional coefficients for each corporate governance component before the inclusion of the interaction terms. The constant is documented at -0.072, representing the baseline level of earnings management when all independent variables are held at zero. Regarding the individual predictors, the independent board of commissioners exhibits a negative coefficient (β_1 = -0.124), indicating that a higher proportion of independent outside monitors actively restricts and reduces opportunistic earnings management practices.

Conversely, the remaining internal governance attributes show positive directional movements. Institutional ownership and managerial ownership generate coefficients of β_2 = 0.112 and β_3 = 0.109, respectively, suggesting that increases in these equity structures are associated with an upward trend in earnings management within the sampled firms. Similarly, the audit committee size displays a positive coefficient (β_4 = 0.016), indicating that a numerical expansion of the committee does not automatically translate into lower accounting discretion.

Moderated Regression Analysis

Table 4. Results of The Moderated Regression Analysis Test

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.161	.399		.403	.688
	X1	-.124	.294	-.082	-2.421	.017
	X2	-.081	.220	-.108	-.367	.714
	X3	.028	.260	.028	3.109	.002
	X4	-.005	.054	-.019	-.100	.921
	Z	-.343	.494	-1.451	-2.693	.008
	X1Z	-.021	.353	-.057	-3.059	.003
	X2Z	-.282	.272	.997	-2.036	.044
	X3Z	-.154	.328	.148	-2.469	.015
	X4Z	.037	.070	.358	.528	.598

a. Dependent Variable: Y

Source: Output SPSS 25

Based on the results of the multiple linear regression analysis, the research model produces the following regression equation:

$$Y = 0{,}161 - 0{,}124X1 - 0{,}081X2 + 0{,}028X3 - 0{,}005X4 - 0{,}343Z - 0{,}021X1Z$$

$$- 0{,}282X2Z - 0{,}154X3Z + 0{,}037X4Z + \varepsilon$$

The results of the Moderated Regression Analysis (MRA) yield a constant of 0.161, which reflects the baseline level of earnings management practices when all independent variables, moderating variables, and their respective interaction terms are held at zero. Regarding the direct effects, the independent board of commissioners, institutional ownership, audit committee, and audit quality exhibit negative regression coefficients of β_1 = -0.124, β_2 = -0.081, β_4 = -0.005, and β_5 = -0.343 respectively. This directional pattern indicates that strengthening these internal oversight instruments and utilizing high-quality external auditors can independently suppress managers' discretionary leeway to manipulate reported earnings. Conversely, managerial ownership demonstrates a positive coefficient (β_3 = 0.028), implying a baseline tendency for earnings management to increase alongside the proportion of shares held by management prior to interacting with the external contingency variable.

Meanwhile, the analysis of the interaction parameters highlights varying relational dynamics once audit quality is introduced as a moderating variable. The interaction of audit quality with the independent board of commissioners, institutional ownership, and managerial ownership consistently produces negative coefficients of β_6 = -0.021, β_7 = -0.282, and β_8 = -0.154 , respectively. This pattern indicates that high-quality external audits successfully synergize with internal governance structures, optimizing the monitoring functions of independent commissioners and institutional investors, while effectively reversing the opportunistic direction of managerial ownership into a negative constraint on earnings management. On the other hand, the interaction between the audit committee and audit quality yields a positive coefficient of β_9 = 0.037 , suggesting that the combined oversight of the audit committee and external audit quality has not yet effectively restricted financial statement manipulation within the sampled firms.

After conducting a comprehensive series of statistical evaluations, including descriptive statistics, classical assumption tests, and moderated regression analysis, the empirical framework of this study was fully validated. To provide a clear and concise overview of the empirical findings, the definitive structural outcomes of all proposed pathways are systematically compiled. These findings directly answer the research questions regarding the individual effects of corporate governance components and the contingent influence of external audit quality. Consequently, the comprehensive summary of the accepted or rejected research hypotheses is structured and presented in the table below:

Table 5. Summary of Hypothesis Testing Results

Hypothesis	Sig.	Direction	Description	Decision
H1	0,000	Negative	Significant Negative Effect	Accepted
H2	0,378	Positive	Insignificant Effect	Rejected
H3	0,479	Positive	Insignificant Effect	Rejected
H4	0,002	Positive	Significant Positive Effect	Rejected
H5	0,008	Negative	Significant Negative Effect	Accepted
H6	0,003	Negative	Significant Moderator (Quasi Moderator)	Accepted
H7	0,044	Negative	Significant Moderator (Quasi Moderator)	Accepted
H8	0,015	Negative	Significant Moderator (Quasi Moderator)	Accepted
H9	0,598	Positive	Insignificant Moderator (Predictor Variable)	Rejected

Source: Data processed

4. Discussion

The Impact of Independent Commissioners on Earnings Management

The empirical results indicate that the independent board of commissioners has a significant negative effect on earnings management. This finding is consistent with agency theory, which views the independent board of commissioners as an important monitoring mechanism for reducing managerial opportunism and information asymmetry between managers and shareholders. Because independent commissioners are less directly involved in day-to-day managerial decisions, they are expected to exercise more objective oversight over financial reporting and challenge accounting choices that may primarily serve managerial interests. This finding is consistent with prior research showing that a stronger independent board of commissioners can improve financial reporting quality and constrain earnings management. Bansal (2021) emphasizes the monitoring role of independent directors in limiting managerial discretion, while Bryan et al. (2025) show that independent board leadership can be associated with lower earnings management when independent directors are meaningfully involved in monitoring activities. These findings suggest that the effectiveness of an independent board of commissioners depends not only on the formal presence of independent members but also on their substantive involvement in corporate oversight.

The negative relationship is particularly relevant in the energy sector, where earnings management may be influenced by substantial information asymmetry and uncertainty surrounding firm performance. Khuong et al. (2020) note that accrual-based earnings management can intensify information asymmetry between managers and external stakeholders in energy firms, while Bugshan et al. (2022) demonstrate that oil-price uncertainty is associated with firms' earnings-management decisions. Cao et al. (2023) further show that managers of energy firms may use discretionary accruals to influence reported financial performance. In such an environment, a stronger independent board of commissioners can provide an important internal monitoring mechanism that restricts managerial discretion and improves the credibility of financial reporting. Therefore, the present finding suggests that the independent board of commissioners in energy companies can function as a substantive governance mechanism rather than merely a formal compliance requirement.

The Impact of Institutional Ownership on Earnings Management

The empirical results indicate that institutional ownership has a negative but statistically non-significant effect on earnings management. From an agency theory perspective, institutional investors are generally expected to serve as an important external monitoring mechanism because they often possess greater resources, expertise, and incentives to evaluate managerial decisions and financial reporting practices. Potharla et al. (2021) note that institutional investors can possess monitoring advantages in processing corporate information and constraining managerial reporting discretion, particularly when information asymmetry is high. Similarly, Ramalingegowda et al. (2021) provide evidence that institutional ownership can contribute to lower earnings management under certain ownership structures. However, the non-significant result in this study suggests that a higher proportion of institutional ownership does not necessarily translate into effective monitoring of earnings management in Indonesian energy companies. This interpretation is consistent with evidence that institutional monitoring intensity may vary across investors. Garel et al. (2021), for example, show that institutional investors face attention constraints because they typically hold diversified portfolios and cannot monitor all investee firms with the same intensity.

In the context of this study, the finding therefore suggests that institutional ownership alone may be insufficient to constrain managerial discretion in financial reporting. The negative coefficient indicates a direction consistent with the monitoring argument of agency theory, but its statistical insignificance implies that ownership concentration by institutional investors does not automatically ensure substantive oversight. This result reinforces the view that the effectiveness of institutional ownership may depend on complementary governance mechanisms that enhance the credibility of financial information and strengthen external monitoring.

The Impact of Managerial Ownership on Earnings Management

The empirical results indicate that managerial ownership has a statistically insignificant effect on earnings management. From an agency theory perspective, managerial ownership is expected to align the interests of managers and shareholders because managers who hold equity participate directly in the economic consequences of their decisions. Under this alignment mechanism, greater managerial ownership should reduce incentives to manipulate reported earnings for short-term private benefits. However, the present finding suggests that managerial ownership does not independently provide a sufficiently strong governance mechanism to constrain earnings management in the sampled energy companies. This result is consistent with the view that the relationship between managerial ownership and earnings management is not necessarily linear or uniform. Shan et al., (2021) distinguish between two competing mechanisms: the incentive-alignment effect, under which managerial ownership reduces opportunistic behavior, and the entrenchment effect, under which greater ownership may provide managers with additional discretion and influence. This suggests that the governance consequences of managerial ownership depend on the level and structure of ownership rather than on managerial shareholding alone. Similarly, prior literature reviewed by Siraji and Nazar (2021) reports mixed evidence regarding the relationship between managerial ownership and earnings management, indicating that managerial ownership does not consistently constrain managerial reporting discretion.

In the context of this study, the insignificant relationship therefore suggests that managerial shareholding alone may be insufficient to materially alter managers' incentives or reporting behavior. Although the direction predicted by the alignment argument remains theoretically plausible, the absence of statistical significance indicates that other governance mechanisms may be required to complement managerial ownership in constraining earnings management. This interpretation is also consistent with Mardnly et al. (2021), who examine managerial ownership and external audit quality as potentially complementary control mechanisms in relation to earnings management.

The Impact of the Audit Committee on Earnings Management

The empirical evaluation indicates that the audit committee (X4) does not reduce earnings management, instead displaying a significant positive relationship. Theoretically, the audit committee is mandated by internal corporate governance structures to secure the integrity of the financial reporting process and review internal controls. However, the positive and significant coefficient implies that simply expanding the size of the audit committee is a compliance-driven administrative formality rather than a substantive monitoring force. In energy firms, the committee's operational oversight may be severely constrained by a lack of specialized industrial knowledge regarding volatile energy transactions, rendering the numerical expansion of members ineffective against opportunistic accounting. From the perspective of agency theory, the audit committee serves as a monitoring mechanism established to reduce conflicts of interest between management and shareholders by overseeing financial reporting and the internal control system

(Jensen & Meckling, 1976). However, the findings of this study indicate that this function has not operated optimally (ineffective monitoring), suggesting that the presence of the audit committee has not been able to constrain opportunistic managerial behavior.

These findings are consistent with those of Widijaya and Veronica (2022), who also found that audit committee size has a positive and significant effect on earnings management. They explained that larger audit committees may encounter coordination and communication challenges, as well as the free-rider problem, resulting in less effective decision-making processes and weakened monitoring of financial reporting. Therefore, increasing the number of audit committee members does not automatically strengthen oversight unless it is accompanied by adequate independence, competence, and engagement. These findings indicate that the existence of an audit committee that is merely oriented toward regulatory compliance (compliance-based governance) is insufficient to curb earnings management practices without the support of effective implementation of its monitoring function.

The Impact of Audit Quality on Earnings Management

The empirical results indicate that audit quality has a significant negative effect on earnings management. From an agency theory perspective, external auditors serve as an important monitoring mechanism by providing independent verification of financial information and reducing information asymmetry between managers and shareholders. In this study, audit quality is proxied by Big Four affiliation. Big Four audit firms are generally expected to possess greater technical resources, structured audit procedures, professional expertise, and reputational incentives than smaller audit firms. Wiratno et al. (2023) note that Big Four auditors may have stronger incentives to protect their reputation and may therefore impose greater scrutiny on accrual-based earnings management. This role is particularly relevant in the energy sector, where financial reporting is exposed to substantial uncertainty and managerial judgment. Stronger external scrutiny may limit managers' ability to exploit discretionary accruals and increase the credibility of reported earnings. However, Big Four affiliation should be interpreted as a proxy rather than a direct measure of audit quality because its effectiveness may vary across institutional settings. Thi (2023), for example, finds that Big Four affiliation does not necessarily constrain earnings management in the Vietnamese market. Thus, the present findings suggest that higher audit quality is associated with lower earnings management among the sampled Indonesian energy companies.

The Moderating Role of Audit Quality on the Relationship Between Independent Commissioners and Earnings Management

The interaction analysis indicates that audit quality significantly moderates the relationship between independent commissioners and earnings management. The negative and significant interaction coefficient suggests that higher audit quality strengthens the negative relationship between independent board oversight and earnings management. From an agency theory perspective, this finding supports the complementary-monitoring argument, whereby internal and external governance mechanisms jointly reduce managerial discretion and information asymmetry. Independent commissioners require credible financial information to perform their monitoring responsibilities effectively. When financial statements are audited by higher-quality external auditors, independent commissioners may receive stronger assurance regarding accounting estimates, accrual choices, and potential reporting irregularities. This additional external verification can enhance their ability to evaluate management decisions and challenge opportunistic financial reporting. Bryan et al. (2024) similarly emphasize that independent board leadership may become more effective when supported by complementary monitoring arrangements. Krismiaji et al. (2023) also examine the interaction between audit quality and board governance in the Indonesian context, highlighting the relevance of considering these mechanisms jointly. The present finding suggests that audit quality does not merely operate as an independent monitoring mechanism but may reinforce the effectiveness of independent commissioners in constraining earnings management. In the sampled energy companies, the combination of independent board oversight and higher audit quality appears to provide stronger monitoring than either mechanism operating in isolation.

The Moderating Role of Audit Quality on the Relationship Between Institutional Ownership and Earnings Management

The moderated regression results indicate that audit quality significantly moderates the relationship between institutional ownership and earnings management. Although institutional ownership has no significant direct effect, the interaction term between institutional ownership and audit quality is negative and statistically significant. This finding suggests that institutional ownership may become more effective in constraining earnings management when supported by higher-quality external auditing. From an agency theory perspective, institutional investors can contribute to corporate monitoring because they generally possess stronger incentives and capabilities to evaluate managerial behavior. However, their monitoring effectiveness also depends on the reliability of the financial information available to them. Mohd Ali et al. (2023) note that institutional ownership can influence managerial decisions through its monitoring capacity, while larger audit firms are generally associated with greater resources, expertise, and reputational incentives. Recent evidence from Indonesia also examines audit quality as a moderator of the relationship between institutional ownership and earnings management (Ariestiani et al., 2026). Thus, the present finding supports the view that institutional ownership and external audit quality can operate as complementary governance mechanisms in constraining managerial discretion.

The Moderating Role of Audit Quality on the Relationship Between Managerial Ownership and Earnings Management

The interaction analysis indicates that audit quality significantly moderates the relationship between managerial ownership and earnings management, as shown by the negative and statistically significant interaction term. This finding suggests that managerial ownership may become more effective in constraining earnings management when it is accompanied by higher-quality external auditing. From an agency theory perspective, managerial ownership can align managers' economic interests with those of shareholders, but this alignment does not completely eliminate managerial discretion or information advantages. External auditing therefore provides an additional monitoring mechanism that can complement the incentive-alignment role of managerial ownership. Mardnly et al. (2021) explicitly examine managerial ownership and external audit quality as two control mechanisms in relation to earnings management, highlighting the importance of considering their combined governance role. In the context of this study, Big Four affiliation may provide stronger external scrutiny over accounting judgments and discretionary accruals, thereby reinforcing the monitoring environment created by managerial share ownership. Recent Indonesian evidence also examines audit quality as a moderator of the relationship between managerial ownership and earnings management (Ariestiani et al., 2026). Overall, the result supports the view that internal incentive alignment and external audit monitoring can operate as complementary governance mechanisms in constraining managerial reporting discretion.

The Moderating Role of Audit Quality on the Relationship Between the Audit Committee and Earnings Management

The interaction analysis indicates that audit quality does not significantly moderate the relationship between the audit committee and earnings management. This finding suggests that the presence of a Big Four auditor does not necessarily strengthen the monitoring effect associated with the audit committee in the sampled energy companies. One possible explanation is that the effectiveness of the audit committee depends substantially on its own governance characteristics and how actively it performs its oversight responsibilities. Prior studies indicate that the effectiveness of audit committees depends on specific committee characteristics and their interaction with external auditing mechanisms. Mardessi (2022) shows that audit quality can moderate certain relationships between audit committee characteristics and financial reporting quality, while Eriandani et al. (2020) find that the complementary effect of external auditors is not uniform across different auditor characteristics. Therefore, the non-significant interaction in this study suggests that external audit quality does not automatically enhance the monitoring role of the audit committee. Its effectiveness may depend more on specific committee characteristics and the quality of coordination between internal and external monitoring mechanisms.

5. Conclusion

This study concludes that Good Corporate Governance (GCG) mechanisms and audit quality play a crucial yet varying role in mitigating opportunistic management behavior in energy sector companies listed on the Indonesia Stock Exchange. Based on hypothesis testing, the internal oversight function, proxied by the independent board of commissioners, was found to be effective in curbing income-increasing earnings management practices, whereas institutional ownership, managerial ownership, and audit committee mechanisms have not been able to limit such discretionary actions due to a tendency for governance practices to remain merely regulatory formalities. Through the Moderated Regression Analysis (MRA) approach, audit quality, positioned as an external contingency variable, was found to make a significant contribution as a quasi-moderator; high-quality audit is able to synergize optimally by strengthening the influence of independent boards of commissioners, institutional ownership, and managerial ownership in narrowing the scope of managerial intervention in financial statements. However, audit quality is unable to moderate the relationship between the audit committee and earnings management. This study has several limitations. First, the sample consists of only 22 energy companies (110 firm-year observations), which limits the generalizability of the findings to other industries or broader populations. Therefore, future studies are encouraged to employ larger samples covering multiple sectors and longer observation periods. Second, audit quality is measured only by a Big Four dummy variable. Although this proxy is widely used in prior studies, it may not fully capture the multidimensional nature of audit quality, such as auditor industry specialization, audit tenure, audit fees, partner experience, or audit report characteristics. Future studies are encouraged to employ more comprehensive measures of audit quality. Theoretically, these findings contribute to strengthening the theoretical framework of agency theory regarding the minimization of information asymmetry and monitoring costs in capital-intensive industries, while also providing practical benefits for regulators and capital market investors in evaluating the effectiveness of substantive oversight by public accounting firms, going beyond mere compliance with minimum membership requirements in corporate governance structures.

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