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The Mediating Role of Asymmetry Information in The Effect of Earnings Management and Sustainability Report Assurance On Cost of Equity

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ABSTRACT : This study aims to examine the effect of earning management and sustainability report assurance on the cost of equity, with asymmetry information as a mediating variable. Using a quantitative approach, this research analyzes secondary data from energy companies listed on the Indonesia Stock Exchange (IDX) that published financial and sustainability reports between 2021 and 2023. The study employs multiple regression analysis to test the hypotheses using the Eviews application. The results show that earning management significantly increases the cost of equity, while sustainability report assurance does not have a significant effect on the cost of equity. Additionally, the results indicate that earning management and sustainability report assurance each have an effect on information asymmetry. Furthermore, information asymmetry is proven to mediate the relationship between both independent variables and the cost of equity. These findings support the signaling theory, which emphasizes that quality disclosures and credible assurance can reduce information asymmetry, uncertainty, and perceived risk by investors, thereby lowering capital costs.

Keywords - Asymmetry Information; Earning Management; Sustainability Report Assurance; Cost of Equity

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1. INTRODUCTION

In the capital market, the risk faced by investors remains a key consideration in their efforts to maximize returns. One of the primary concerns is the cost of equity, which refers to the minimum rate of return required for an investment to be considered worthwhile. Cost of equity represents a financing cost for companies in obtaining capital from shareholders (Nabila et al., 2024), and also reflects the level of risk that investors expect to be compensated for. Investors have a strong interest in understanding the factors that influence the cost of equity. Similarly, companies have an interest in identifying these factors to improve funding efficiency and enhance the market appeal of their shares. One internal factor that has the potential to affect the cost of equity is earnings management. Earnings management refers to managerial efforts to manipulate accounting earnings for specific purposes, such as meeting market expectations or maintaining a favorable performance image. However, such practices can reduce the reliability of financial reporting and increase investors' perception of risk (Nurjanati et al., 2015). As a result, investors may demand a higher return to compensate for the increased risk, which leads to a higher cost of equity (Jumirin, 2011; O'Callaghan et al., 2018). Nevertheless, research findings on the relationship between earnings management and cost of equity remain inconsistent. Some studies argue that earnings management significantly increases the cost of equity (Kiswanto et al., 2013), while others report no significant effect (Adriani, 2013). These inconsistencies suggest the possibility of other variables that may better

explain the relationship. One such variable is information asymmetry, which could serve as a mediating factor between earnings management and cost of equity. Information asymmetry arises when company management, as insiders, has access to information that is not fully available to investors. This imbalance leads to uncertainty in assessing the firm's performance and prospects, thus increasing the perception of risk (Brennan et al., 2016). In the capital market context, information asymmetry is closely related to agency problems and can increase adverse selection costs, as reflected in wider bid-ask spreads (Riswandari, 2023). Under such conditions, investors tend to demand higher returns, ultimately leading to an increase in the cost of equity.

Several studies have shown a positive relationship between information asymmetry and cost of equity (Eid, 2015; Perwira et al., 2015). However, this is not universally supported. Hajawiyah, Adhariani, and Djakman (2018) found that information asymmetry does not always significantly affect the cost of equity. Therefore, a more comprehensive analysis is needed, taking into account other contributing factors, including mechanisms that can reduce information imbalances. One important mechanism that can reduce information asymmetry is assurance on sustainability reports. The use of assurance is not cost-free. Therefore, companies typically decide to obtain assurance when the perceived benefits outweigh the costs (Indyanti et al., 2017). These benefits include enhanced stakeholder trust in the quality of disclosed sustainability information and strengthened corporate commitment to sustainability agendas. Increased trust helps reduce information asymmetry, which in turn lowers investors' risk perceptions and cost of equity. Furthermore, external assurance of sustainability reports can enhance the credibility of disclosures and improve the firm's public reputation (Tujori et al., 2024). According to Coram et al. (2009), both financial and non-financial information can be enhanced through reliable audit processes. The type of assurer—whether a professional accountant or a consultant—does not make a significant difference in terms of improving credibility (Moroney et al., 2012). Unlike financial statements, which are required to be audited, sustainability report assurance remains voluntary. Consequently, only a small number of companies apply such assurance, primarily due to cost considerations (Indyanti, 2017). From the investor's perspective, however, the presence of assurance sends a positive signal regarding information reliability, which helps reduce perceived uncertainty and risk, thereby lowering the cost of equity.

Information asymmetry has the potential to serve as a mediating variable explaining how earnings management and sustainability report assurance affect the cost of equity. On one hand, earnings management tends to increase information asymmetry; on the other, sustainability assurance helps reduce it. Thus, understanding the mediating role of information asymmetry is essential for explaining the relationship between these two factors and the cost of equity in a more comprehensive manner. Considering the importance of information transparency, the prevalence of earnings management practices, and the growing emphasis on sustainability, this study aims to examine the mediating role of information asymmetry in the relationship between earnings management and sustainability report assurance on the cost of equity. This research is expected to enrich the literature in accounting and finance and offer practical insights for companies in their efforts to reduce capital costs through more accountable and credible information management (Kiswanto et al., 2019; Nurjanati et al., 2015).

Agency theory explains that the relationship between managers (agents) and shareholders (principals) often results in conflicts of interest due to information asymmetry. Agents, who possess more information than principals, tend to exploit this condition for personal gain (Savitrah, 2019; Rinobel & Laksito, 2015). One form of such exploitation is earning management, whereby managers manipulate earnings figures to appear more favorable, either through discretionary accruals or real activity manipulation (Saputra et al., 2022; Wahyono et al., 2019). This practice aims to create a positive perception among investors and maintain the stability of managerial compensation. However, high levels of information asymmetry and financial report manipulation reduce investor trust, leading them to demand higher returns as compensation for increased risk (Savitrah, 2019). This ultimately increases a company's cost of equity. Within the framework of agency theory, such conditions reflect weak control over agents and demonstrate how information imbalances can harm the efficiency of corporate financing. In this context, external assurance of sustainability reports can be viewed as an external monitoring mechanism that strengthens management accountability to principals. Assurance helps reduce information asymmetry between agents and principals by providing an independent assessment of the

quality and reliability of sustainability disclosures (Indyanti et al., 2017). This limits managerial discretion in conveying biased information and enhances investor trust in the company's integrity and commitment. Therefore, from an agency theory perspective, sustainability report assurance serves as a tool to mitigate agency conflicts, which in turn can reduce the cost of equity.

Signaling theory highlights the importance of companies providing information that reflects actual conditions and future prospects. Signals conveyed through various forms of disclosure aim to reduce market uncertainty and assist investors in better assessing risk (Beyer et al., 2010). If the signals are transparent and credible, investor risk perception declines, thereby lowering the cost of equity (Ali et al., 2019; Nabila et al., 2024). Conversely, earning management often sends negative signals, indicating that financial information may not reflect actual company conditions (Saputra et al., 2022). Investors who perceive these negative signals tend to view the company as riskier, leading them to demand higher returns on investment. Moreover, high levels of information asymmetry between management and investors exacerbate negative perceptions regarding information credibility (Savitrah, 2019; Rinobel & Laksito, 2015). Within the signaling theory framework, the use of assurance for sustainability reports constitutes a strong positive signal to investors. Companies that are willing to bear the costs of assurance demonstrate seriousness and long-term commitment to transparency and sustainability (Indyanti et al., 2017; Tujori et al., 2024). This not only enhances the credibility of the report but also strengthens the company's reputation (Simnett et al., 2009). Independently audited sustainability information provides quality assurance for investors, reducing perceived risk and driving down the cost of equity. Thus, external assurance acts both as a signal affirming the reliability of disclosed information and as a strategic effort to manage market expectations effectively.

The Effect of Earning Management on Cost of Equity

Earning management, whether through abnormal accruals or real activities, can degrade the quality of financial reporting, increasing investor risk perception. When information fails to reflect a company's actual condition, investors demand higher returns as compensation for uncertainty, leading to a rise in the cost of equity (Krismiaji & Raharja, 2018; Febrininta & Siregar, 2014). Additionally, such manipulative actions are often intended to increase the chances of obtaining external funding at lower costs, though they may ultimately erode market confidence in the firm's credibility (Utami, 2005; Jumirin, 2011). Within the agency theory framework, earning management reflects conflicts of interest between agents and principals, as managers act opportunistically to maintain their position, earn bonuses, or preserve their image (Jensen & Meckling, 1976). This information imbalance enables opportunistic behavior, heightens uncertainty, and prompts investors to increase their return expectations. Such practices not only raise the cost of equity but also mislead market decision-making and damage the firm's long-term efficiency and reputation.

H1: Earning management has a positive effect on the cost of equity.

The Effect of Sustainability Report Assurance on Cost of Equity

According to signaling theory, credible information disclosure acts as a positive signal that reduces investor uncertainty about a firm's condition (Beyer et al., 2010). External assurance of sustainability reports reinforces this signal, as third-party audited reports indicate a company's commitment to transparency and long-term sustainability (Simnett et al., 2009; Tujori et al., 2024). Investors respond positively to such signals by lowering their risk perceptions. As a result, they no longer demand excessive returns as compensation for information uncertainty, thereby reducing the company's cost of equity (Ali et al., 2019). Although assurance entails additional costs, firms undertake it because the benefits—such as increased investor trust and reduced information risk—are perceived to outweigh the costs (Indyanti et al., 2017). Therefore, sustainability report assurance is expected to contribute to financing efficiency by reducing the cost of equity.

H2: Sustainability report assurance has a negative effect on the cost of equity.

The Effect of Earning Management on Information Asymmetry

Earning management is commonly employed by managers to manipulate profit figures in financial statements

to achieve specific targets or create favorable perceptions among investors. However, this practice may increase the information gap between managers as agents and shareholders as principals. Because managers have more complete information about the company's financial condition, and investors cannot fully verify the disclosed data, earning management becomes a tool for concealing the actual situation (Saputra et al., 2022; Wahyono et al., 2019). Thus, the greater the intensity of earning management, the higher the level of information asymmetry. From the agency theory perspective, earning management reflects opportunistic behavior by agents that is misaligned with the principal's interests. When management chooses to present financial reports that do not reflect reality, investors face greater uncertainty (Rinobel & Laksito, 2015; Savitrah, 2019). Without equal access to internal company information, investors struggle to accurately assess performance and risk, thereby increasing the information gap between internal and external stakeholders. Therefore, earning management is viewed as a primary contributor to high levels of information asymmetry in agency relationships.
H3: Earning management has a positive effect on information asymmetry.

The Effect of Sustainability Report Assurance on Information Asymmetry

In agency theory, information asymmetry arises from an imbalance of knowledge between management (agents) and investors (principals). Managers, as internal parties, have more complete access to the company's conditions and prospects than shareholders. This imbalance enables opportunistic behavior, such as concealing risks or overstating performance (Savitrah, 2019; Rinobel & Laksito, 2015). External assurance of sustainability reports serves as a mechanism to reduce this information asymmetry. Assurance provides an independent evaluation of the quality and accuracy of sustainability disclosures, narrowing the information gap between managers and investors. Through assurance, investors gain confidence that non-financial information has been verified by competent third parties (Indyanti et al., 2017; Simnett et al., 2009). Consequently, companies that conduct assurance on sustainability reports are expected to reduce information asymmetry, as investors place greater trust in the transparency and accuracy of reported data.
H4: Sustainability report assurance has a negative effect on information asymmetry.

The Effect of Information Asymmetry on Cost of Equity

Information asymmetry occurs when management possesses more complete information than external investors, which increases uncertainty and perceived risk (Nurjanati & Rodoni, 2015; Riswandari, 2023). Within the agency theory context, this condition allows managers to act opportunistically, such as withholding information or manipulating financial data. As a result, investors demand higher returns to compensate for the lack of transparency, thus increasing the cost of equity. This aligns with the high-risk, high-return principle: the greater the information asymmetry, the higher the cost of equity borne by the company (Guo et al., 2021). Even companies with strong ESG performance are still subject to investor risk perception when asymmetry is present. Empirically, the level of information asymmetry can be observed through the bid-ask spread; a wider spread reflects higher market risk perception (Ifonie, 2012).
H5: Information asymmetry has a positive effect on the cost of equity.

The Mediating Role of Information Asymmetry in the Relationship between Earning Management and Cost of Equity

Information asymmetry is not only influenced by earning management practices but also serves as a key mechanism explaining how earning management leads to higher cost of equity. When management manipulates earnings, it increases uncertainty and erodes investor trust in financial transparency (Zang, 2012). This uncertainty results in a higher perceived risk, which prompts investors to demand greater returns (Savitrah, 2019). In this case, information asymmetry becomes a critical pathway mediating the relationship between earning management and cost of equity. As the level of information asymmetry rises due to earning management, informational risk intensifies and directly contributes to increased cost of equity (Nurjanati & Rodoni, 2015; Riswandari, 2023). Therefore, information asymmetry can function as a mediating variable that provides deeper insight into how and why earning management affects the cost of equity. Understanding this

mediating relationship enables firms to focus on improving transparent and accountable information management to reduce risk perceptions and lower cost of equity.
H6: Information asymmetry mediates the relationship between earning management and cost of equity.

The Mediating Role of Information Asymmetry in the Relationship between Sustainability Report Assurance and Cost of Equity

From a combined agency and signaling theory perspective, sustainability report assurance plays a crucial role in bridging the information gap and enhancing market perceptions of the firm. External assurance helps reduce information asymmetry between companies and investors (Indyanti et al., 2017; Simnett et al., 2009), which in turn decreases perceived investor risk. This reduction in information asymmetry is a key mechanism linking assurance to lower cost of equity. When asymmetry decreases, transparency increases, and investors gain greater confidence in the company's information. As a result, they lower the risk premium they require, thereby reducing the cost of equity (Beyer et al., 2010; Ali et al., 2019). Thus, information asymmetry can act as a mediating variable that offers deeper insight into how sustainability report assurance influences the decline in cost of equity.
H7: Information asymmetry mediates the relationship between sustainability report assurance and cost of equity.

2. RESEARCH METHODS

This research is a quantitative study that aims to examine the effects of earnings management and sustainability report assurance on the cost of equity, as well as the mediating role of information asymmetry in this relationship. A quantitative approach is chosen as it allows for objective and measurable hypothesis testing using numerical data and statistical analysis. The study seeks to explain causal relationships between variables by relying on secondary data sourced from companies' annual and sustainability reports. The population in this study consists of all energy sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period. The energy sector was selected due to its high exposure to sustainability issues and market scrutiny, making earnings management practices and information transparency critical concerns. The sampling technique used is purposive sampling, in which samples are selected based on specific criteria relevant to the research objectives. The sample selection criteria are as follows: (1) the company is part of the energy sector and listed on the IDX during 2021–2023; and (2) the company publishes complete financial and sustainability reports throughout the observation period.
The cost of equity represents the minimum return expected by investors for their equity investment in a company. This variable reflects investor risk perception and serves as an essential indicator for both investment decisions and corporate financing strategies. A high cost of equity indicates that investors perceive the company as high risk, while a lower cost suggests greater market confidence in the company's information and performance (Ali et al., 2019; Nabila et al., 2024). For companies, the cost of equity represents the expense of capital sourced from shareholders and serves as a benchmark for evaluating project feasibility and managerial efficiency (Chouaibi et al., 2021).
In this study, the cost of equity is calculated using the Capital Asset Pricing Model (CAPM). This model is considered the most relevant in the context of Indonesia's capital market (Rahmawati et al., 2018; Supit et al., 2015). The formula used is:
$CAPM = R_f + \beta (R_m - R_f)$
Where:
CAPM : Capital Asset Pricing Model
Rf : Risk-Free Rate
B : Beta
Rm : Expected Market Return
Earnings management refers to managerial intervention in the process of preparing external financial reports to achieve specific objectives, such as maintaining a company's image or meeting profit targets. This practice can

be carried out through two approaches: accrual-based earnings management and real earnings management. While it may still comply with accounting standards, such practices can mislead stakeholders in evaluating the company's actual performance (Wahyono et al., 2019). One of the most widely used methods for detecting earnings management is the Modified Jones Model, which distinguishes between normal and abnormal accruals (Dechow et al., 1995; Zang, 2012).

Assurance refers to professional services aimed at enhancing the credibility and quality of information presented in reports, particularly sustainability reports. In this research, assurance is used to assess how company characteristics influence the decision to obtain third-party assurance on sustainability reports. The variable is measured by reviewing whether a company's sustainability report in the observation year received independent assurance. It is assessed using a binary dummy variable: a score of 1 is assigned if the report is assured, and 0 if it is not (Cho et al., 2014).

Information asymmetry is a condition in which managers (agents) have more information than investors (principals), potentially leading to imbalanced investment decisions and conflicts of interest (Jensen & Meckling, 1976; Savitrah, 2019). In such cases, managers may exploit information unknown to investors for personal gain, such as manipulating performance reports or misleading the market about the company's actual condition. Since it cannot be observed directly, information asymmetry is measured indirectly through the bid-ask spread, which reflects the level of information uncertainty in the market (Healy, 1999).

This study also includes control variables to ensure that certain factors do not distort the relationship between the independent and dependent variables (Indriantoro and Supomo, 2008). The control variables used in this study are firm size and audit committee. Firm size refers to the scale of a company, which can be classified based on total assets, sales, log size, market value, market capitalization, etc. (Kiswanto et al., 2019). The audit committee is defined as a group of individuals responsible for overseeing management-related activities to achieve organizational goals. It is measured by the number of audit committee members (Munir et al., 2024).

The data analysis method used in this research is mediation regression analysis, which is applied to test the influence of earnings management and sustainability report assurance on the cost of equity, as well as the mediating role of information asymmetry. The analysis is conducted using EViews software, which enables the testing of direct relationships between variables and helps identify whether information asymmetry mediates the effect of earnings management on the cost of equity.

The research model used for the analysis is as follows:

Model 1

$$COE = a + \beta_{11} EM + \beta_{12} SRA + \beta_{13} IA + \beta_{14} AC + \beta_{15} SIZE + e$$

Model 2

$$IA = a + \beta_{21} EM + \beta_{22} AC + \beta_{23} SIZE + e$$

Model 3

$$IA = a + \beta_{31} SRA + \beta_{32} AC + \beta 3_3 SIZE + e$$

Where:

COE : Cost of Equity
EM : Earning Management
SRA : Sustainability Reporting Assurance
IA : Information Asymmetry
AC : Audit Committe
SIZE : Firm Size
a : Constanta
β : Coefficient
e : Error

3. RESULT AND DISCUSSION

The object of this study is energy sector companies listed on the Indonesia Stock Exchange (IDX). The sample selection was conducted as follows:

Table 1. Sample Selection

Description	Total
All energy sector companies listed on the IDX	87
Energy companies not consistently listed on IDX during 2021–2023	(4)
Energy companies that did not publish financial reports from 2021–2023	(0)
Energy companies that did not publish sustainability reports from 2021–2023	(53)
Total	**30**
Total Observations: 30 companies x 3 years	**90**

(Source: Processed by Author, 2025)

Table 2. Descriptive Statistics Test Results

	COE	EM	SRA	IA	AC	SIZE
Mean	0.040174	0.024963	0.333333	22.67232	3.400000	20.34447
Median	0.035891	-0.010398	0.000000	23.47681	3.000000	19.85612
Maximum	0.060853	0.531654	1.000000	36.70729	6.000000	24.13291
Minimum	0.020440	-0.088322	0.000000	12.79146	3.000000	16.07743
Std. Dev.	0.010763	0.111582	0.474045	5.348171	0.715793	1.763663
Observations	90	90	90	90	90	90

(Source: Secondary data processed using E-Views 12, 2025)

Based on the descriptive statistics, the average cost of equity (COE) of 0.040 indicates a relatively stable cost of equity across companies. The earnings management (EM) variable has a positive mean but a negative median, indicating an asymmetric distribution. Approximately 33% of the companies in the sample provide sustainability report assurance (SRA), with a relatively high degree of variation. The information asymmetry (IA) variable has an average of 22.67 with a wide distribution, reflecting significant differences among companies.

Table 3. Normality Test Results

	Jarque-bera	Prob. (sig)
Model 1	1.507741	0.470542
Model 2	1.270235	0.529873
Model 2	1.162824	0.559108

(Source: Secondary data processed using E-Views 12, 2025)

The Jarque-Bera test results for Models 1, 2, and 3 indicate that the probability values for each model are greater than 0.05. This suggests that the data are normally distributed.

Table 4. Multicollinearity Test Results (Correlation Matrix)

	EM	SRA	IA	AC	SIZE
EM	1	-0.159	0.309	0.036	-0.014
SRA	-0.159	1	-0.399	0.397	0.353
IA	0.309	-0.399	1	-0.138	-0.117
AC	0.036	0.397	-0.138	1	0.307
SIZE	-0.014	0.353	-0.117	0.307	1

(Source: Secondary data processed using E-Views 12, 2025)

The multicollinearity test using the correlation matrix shows no severe multicollinearity among the independent variables, as all correlation values are below the 0.80 threshold. The highest correlation is observed between sustainability report assurance (SRA) and audit committee (AC) at 0.397. Other correlations, such as between earnings management (EM) and ASR (-0.159), and sustainability report assurance (SRA) and information asymmetry (IA) (-0.399), remain low to moderate. Therefore, the regression model is free from serious multicollinearity issues, and all independent variables can be included in the regression analysis without modification.

Based on the model selection process, the best estimation model for Models 1, 2, and 3 is the Random Effect Model (REM). Since REM uses the Generalized Least Squares (GLS) method, which is robust to heteroskedasticity, it is not necessary to conduct a heteroskedasticity test (Yudhistira, 2023).

The best estimation model selected using E-Views is the Random Effect Model, with the results presented below:

Table 5. Hypothesis Test Results

Independent Variables	***Dependent Variables***		
	Model 1	**Model 2**	**Model 3**
	COE	**IA**	**IA**
C	0.019077 (0.1413)	33.16614 (0.0000)	26.55954 (0.0005)
EM	0.046057 **(0.0000)**	11.91082 **(0.0020)**	
SRA	0.002054 (0.4108)		-4.268455 **(0.0146)**
IA	0.000626 **(0.0029)**		
AC	-0.000797 (0.5979)	-0.883029 (0.3001)	-0.194682 (0.8275)
SIZE	0.000382 (0.5233)	-1.112763 (0.2689)	-0.088598 (0.8045)
Sobel Test		0.02703796	0.05300769
R-squared	0.390959	0.125832	0.088401
Adjusted R-squared	0.354707	0.095338	0.056601
Prob(F-statistic)	0.000000	0.008757	0.045899

(Source: Secondary data processed using E-Views 12, 2025)

Model 1 shows that earnings management (EM) has a positive and significant effect on cost of equity (COE), with a coefficient of 0.046057 and a p-value of 0.0000, thus supporting Hypothesis 1. This indicates that higher levels of earnings management increase the cost of equity, as investors perceive greater information risk. Meanwhile, sustainability report assurance (SRA) does not significantly affect COE in Model 1 (p = 0.4108), hence Hypothesis 2 is rejected. However, in Model 3, sustainability report assurance (SRA) has a significant negative effect on information asymmetry (IA), with a coefficient of -4.268455 and a p-value of 0.0146, supporting Hypothesis 4. This suggests that providing assurance on sustainability reports significantly reduces information asymmetry between management and investors. Additionally, Model 2 confirms the positive and significant impact of earnings management on information asymmetry (IA), with a coefficient of 11.91082 and a p-value of 0.0020, thus supporting Hypothesis 3. This indicates that financial reporting manipulation exacerbates the lack of transparency, increasing information asymmetry. The control variables, namely audit committee (AC) and firm size (SIZE), do not show significant influence in any of the models.

The Sobel test results in Model 2 (0.0270) and Model 3 (0.0530) are both below the 0.1 significance level, indicating that information asymmetry significantly mediates the relationships between earnings management and cost of equity, as well as between sustainability assurance and cost of equity. Therefore, Hypotheses 6 and

7 are accepted. Furthermore, the R-squared value for Model 1 is 0.390959, meaning that approximately 39.10% of the variation in cost of equity is explained by the independent variables: earnings management, assurance, information asymmetry, audit committee, and firm size. Models 2 and 3 have lower R-squared values of 12.58% and 8.84%, respectively, suggesting these models have limited explanatory power for variations in information asymmetry. Nevertheless, all three models show significant F-statistics with probabilities of 0.000000, 0.008757, and 0.045899, indicating that the independent variables in each model jointly have a significant effect on their respective dependent variables.

The results of Model 1 indicate that earnings management has a significant positive effect on the cost of equity (COE), with a coefficient value of 0.046057 and a significance level of 0.0000. This finding suggests that the more intensively a company engages in earnings management, the higher the risk perceived by investors. This aligns with agency theory, which highlights the conflict of interest between managers as agents and investors as principals, particularly when managers possess information that is not fully accessible to investors (Jensen & Meckling, 1976; Savitrah, 2019). Earnings management increases information asymmetry by manipulating financial reports to appear more favorable than the actual condition, thereby reducing transparency and the quality of information (Rinobel & Laksito, 2015). Investors, aware of such potential manipulation, will demand higher returns as compensation for the risk of inaccurate information, which in turn raises the cost of equity (Kim & Sohn, 2013). Therefore, this result confirms that earnings management significantly impacts investor risk perception and increases the company's cost of equity.

In Model 1, the sustainability report assurance (SRA) variable shows a negative but statistically insignificant effect on the cost of equity, with a p-value of 0.4108. This indicates that the presence of assurance on sustainability reports has not yet exerted a strong influence in reducing investors' return expectations. From the perspective of signaling theory, assurance should serve as a positive signal of the company's commitment to transparency and accountability, especially since it is conducted by an independent party assessing the validity of the sustainability report (Beyer et al., 2010; Ali et al., 2019). However, if the assurance is of low quality, symbolic in nature, or fails to address material issues relevant to investors, the signal may not be strong enough to reduce uncertainty and investor risk perception. Hence, the insignificance may reflect investors' low confidence in the effectiveness of assurance or a lack of understanding of its role in representing the firm's sustainability performance.

Model 2 shows that earnings management significantly increases information asymmetry (IA), with a positive coefficient of 11.91082 and a significance level of 0.0020. This reinforces the argument that earnings management deteriorates the transparency and reliability of financial disclosures. In the context of agency theory, this can be seen as managerial opportunism, where managers use their superior access to information to conceal the firm's actual financial condition from shareholders (Zang, 2012). By manipulating financial statements, managers seek to portray a better performance to protect their reputation or personal incentives, which ultimately widens the information gap between internal and external parties (Wahyono et al., 2019). Investors, who do not have access to internal information, find it increasingly difficult to assess the actual risks of the firm. Therefore, higher levels of earnings management lead to lower investor confidence in financial report accuracy, which in turn significantly increases information asymmetry.

Model 3 reveals that sustainability report assurance (SRA) has a significant negative effect on information asymmetry (AI), with a coefficient of -4.268455 and a significance level of 0.0146. This finding suggests that assurance helps reduce the information gap between management and external stakeholders, particularly investors. Under signaling theory, assurance provides a credibility signal by involving an independent third party to verify the information, offering additional confidence in the reliability and transparency of the sustainability report (Zhang et al., 2009; Chouaibi et al., 2021). Assurance transforms the sustainability report from a mere narrative document into one with external legitimacy, strengthening the company's position in the eyes of investors. Investors are more likely to trust that audited sustainability disclosures have undergone objective evaluation, reducing uncertainty and building trust. Thus, assurance plays a tangible role in improving the quality of corporate communication and mitigating information asymmetry.

Model 1 also illustrates the relationship between information asymmetry and the cost of equity, where the p-

value is 0.0029 with a coefficient of 0.000626. This indicates that higher information asymmetry leads to a higher cost of equity. This is supported by both agency and signaling theories, which emphasize the importance of information transparency in shaping investor expectations of risk and return (Savitrah, 2019). When companies fail to disclose accurate and credible information, investors face greater uncertainty in making investment decisions. Consequently, they demand higher returns as compensation for that uncertainty. Therefore, the higher the level of information asymmetry, the higher the cost of equity the company must bear, underscoring the importance of sound information governance in managing external financing costs.

The Sobel test in Model 2 yields a value of 0.02703796, which is statistically significant at the 0.1 threshold. This result confirms that information asymmetry significantly mediates the relationship between earnings management and the cost of equity. In other words, the negative impact of earnings management on the cost of equity occurs not only directly but also indirectly through increased information asymmetry. This finding reinforces that investors do not assess risk based solely on reported earnings figures but also consider the quality and transparency of the underlying information. In this context, the more aggressive the earnings management, the more skeptical investors become about information reliability, prompting them to demand a higher risk premium. Therefore, controlling and monitoring earnings management practices is key to reducing information asymmetry and, simultaneously, lowering the firm's cost of equity.

Likewise, the Sobel test result for Model 3 yields a value of 0.05300769, which is also significant at the 0.1 threshold. This indicates that information asymmetry acts as a mediating variable in the relationship between sustainability report assurance and the cost of equity. Although assurance does not directly and significantly reduce the cost of equity in Model 1, this result shows that it can indirectly lower the cost of equity by reducing information asymmetry. Thus, while the signal provided by assurance may not be strong enough to directly influence risk perception, its role in enhancing information transparency remains crucial (Nabila et al., 2024). When investors are more confident in the credibility of corporate disclosures, they lower their required return on investment. These results support the importance of integrating assurance into sustainability reporting—not merely as symbolic compliance, but as a strategic tool to manage risk perception and build sound informational relationships with stakeholders.

4. CONCLUSIONS AND SUGGESTIONS

Based on the analysis, this study concludes that earnings management and sustainability report assurance significantly affect the cost of equity, with information asymmetry playing an important mediating role. Earnings management increases the cost of equity by deteriorating the quality of financial information disclosed to the public. This contributes to greater information asymmetry between management and investors, which in turn raises perceived risk and compels investors to demand higher returns as compensation.

Conversely, assurance of sustainability reports has the opposite effect. Assurance serves as a positive signal to investors that the company's non-financial disclosures can be trusted. With assurance, the credibility of sustainability reporting increases, and information asymmetry decreases, ultimately leading to a reduction in the cost of equity. This highlights that transparency and accountability are crucial not only in financial reporting but also in sustainability disclosure.

These findings reinforce agency and signaling theories. In the context of agency theory, earnings management reflects a conflict of interest between management and owners, leading to agency costs in the form of a higher cost of equity. Meanwhile, under signaling theory, sustainability report assurance serves as a means for companies to communicate their long-term commitment to good governance and sustainability, thereby reducing informational uncertainty and perceived investor risk.

This study faces several technical limitations related to the explanatory power of the analytical model. The coefficient of determination (R^2) in the multiple regression analysis is relatively low, indicating that the independent variables included in the model explain only a small portion of the variation in the dependent variable. This implies that other influential factors affecting the cost of equity have not been incorporated into the analysis. Furthermore, the limited number of sustainability reports that include assurance also poses a constraint, making generalization difficult and limiting the statistical power to examine assurance effects more

comprehensively.

To address the low R^2 value, future research should expand the set of independent variables by considering other relevant factors such as ownership structure, audit quality, or macroeconomic conditions that may influence the cost of equity. Additionally, to overcome the constraint of limited assurance data, future studies are advised to extend the observation period or broaden the scope of sectors and regions to obtain a sufficient number of assured reports for robust statistical analysis. Employing a mixed-methods approach may also provide deeper insights into the strategic implications of assurance, as quantitative data alone may not fully capture its role in corporate sustainability reporting.

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