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MODERATING ROLE OF MARKET SHARE AND FINANCIAL HEALTH ON REAL EARNINGS MANAGEMENT AND COST EQUITY

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Abstract

This study looks at how market share and financial influence the connection between real earnings (REM) and cost of equity. It focuses manufacturing companies that are listed on the Indonesian Stock Exchange using data 2019 to 2021 as its research sample. REM is evaluated with a combination of abnormal CFO, low productivity, and abnormal discretionary cost, while cost of equity is measured with the Ohslon model. All findings from the regression analysis indicate that the presence of a collaborative business agreement and monetary support diminish the advantageous impact of REM on the equity cost. This suggest that REM could be a sign of competitive advantage, signaling a stable economy and better financial condition, thus reducing the cost of euit. In addition, the study shows that REM often shows information about the market situation through oversold activity, whereas all REM activities share information about financial health including oversold, overproduction, and identified abatement costs. This study contributes to the understanding of REM as an indicator of joint venture and financial health that can help reduce the cost of equity.

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INTRODUCTION

The cost of equity is critical for internal decision-making to formulate an optimal capital structure and for investors to evaluate expected returns. It is influenced by earnings information, which directly impacts stock prices and information risks such as earnings opacity. Real Earnings Management (REM) increases information opacity, often used by firms post-Enron scandal and Sarbanes-Oxley Act due to its reduced regulatory scrutiny compared to accrual-based management. In Indonesia, REM has been linked to misinformation, lower earnings quality, increased cost of equity, diminished future performance, and adverse investor reactions. However, REM can also act as a signaling tool, positively influencing future earnings and reducing cost of equity under specific conditions like strong market share and financial health. This duality in REM's impact necessitates further exploration of how contextual factors like market share and financial health moderate its effect on the cost of equity.

Previous studies offer conflicting views on the relationship between REM and cost of equity. Some research highlights REM's potential to reduce cost of equity through efficiency and signaling mechanisms, demonstrating improved investor confidence in firms with higher earnings prospects (Roychowdhury, 2006). Conversely, others emphasize the opportunistic nature of REM, which obscures true earnings performance and heightens stock risks, leading to higher cost of equity (Roychowdhury, 2006). Some studies also suggest no significant relationship between REM and cost of equity (Roychowdhury, 2006). This inconsistency underscores a critical gap in understanding the conditions under which REM influences cost of equity.

This research addresses the gap by examining market share and financial health as moderating factors that determine the cost of REM activities and their signaling potential. Market share, reflecting competitive positioning, and financial health, indicating operational resilience, may mitigate the negative consequences of REM and enhance its signaling value. By integrating these moderating factors, this study provides a comprehensive framework to understand how REM can either escalate or mitigate cost of equity, contributing to the literature on earnings management and firm valuation.

REM, as defined by (Roychowdhury, 2006), refers to a management practice where deviations from standard business practices are employed to achieve specific earnings targets. In contrast to accrual earnings management, which involves manipulating reported earnings by taking advantage of loopholes in Generally Accepted Accounting Principles (GAAP), firms' management tends to favor REM. This preference can be observed when firms make use of different options provided by GAAP, such as adjusting bad debt estimates, selecting sales recognition methods, choosing inventory accounting methods, or determining fixed asset depreciation methods, with the intention of manipulating reported earnings.

REM can be carried out throughout the financial reporting period, unlike accrual earnings management, which is typically executed only at the end of the reporting period. (Roychowdhury, 2006), proposes that auditors can more easily identify accrual earnings management than REM. (Roychowdhury, 2006) assert that auditors' principal responsibility is to recognize inappropriate reporting in line with GAAP, rather than detecting optimal business activities. Commerford et al. (2019) present evidence that auditors of high quality can limit accrual earnings management, prompting companies to resort to manipulating real activities. (Roychowdhury, 2006). discover that the Sarbanes-Oxley Act (SOX) has resulted in a shift from accrual earnings management to REM, with auditors playing an enhanced role. Managers prefer REM because it attracts less scrutiny from regulatory bodies and external auditors compared to accrual earnings management (Roychowdhury, 2006). According to (Roychowdhury, 2006), specific provisions of SOX, such as auditor rotation, raise the expenses connected with accrual earnings management and consequently promote REM.

Earnings management will be understood in two ways. The first perspective views it as opportunistic behavior by management, aimed at maximizing their personal gains in relation to

compensation agreements, debt arrangements, and political considerations (Roychowdhury, 2006) In this view, managers do an manipulate earnings to serve their own interests. While many studies have focused on the opportunistic nature of earnings management, this research will specifically examine earnings management as a form of information signaling (Roychowdhury, 2006).

Under pressure from analysts, managers may engage in real earnings management (REM) to enhance short-term performance, as proposed by (Irani & Oesch, 2016). (Eunice & Obi, 2021), theoretical insights into how product market competition influences the incentives for earnings manipulation. They find that in highly competitive markets, manipulating earnings becomes more rewarding, particularly for firms that appear to be underperforming their competitors. The objective of such earnings management is to offset market disadvantages and create a favorable perception. Another opportunistic form of earnings management occurs around seasoned equity offerings (SEO) when firms manipulate earnings to boost their share prices.

Earnings management can also be used to conceal financial difficulties and delay bankruptcy filings. (Irani & Oesch, 2016) note that in the US, firms may engage in earnings management to postpone filing for bankruptcy under the regulations of Chapter 11. This regulation allows financially troubled firms to propose reorganization plans to the bankruptcy court, and earnings management serves as a means to delay the filing. Overall, these examples demonstrate how earnings management as an opportunistic act can be employed to mask poor performance, cover financial difficulties, and create a more favorable market perception for the firm.

Firms need to raise funds for their business. There is some alternative of funding resources for firms which are internal fund, debt, and equity (Nguyen et al., 2019). When firms decide to choose debt or equity for funding resources, they need to pay the cost of debt for creditors or the cost of equity for the investor. The cost of debt relates to debt interest while the cost of equity relates to stock return. In this research context, earnings management relates more to the cost of equity since the stock return, both dividend and capital gain is determined by earnings (Roychowdhury, 2006).

The cost of equity refers to the expected rate of return by the investor that has to be paid by firms. The expected return is determined by the risk when an investor invests in the firm. When investors assess that the risk is high, they will expect a high rate of return. In this case, higher risk leads to a higher cost of equity. Some findings show that business risk financial risk (Schober et al., 2014a), and information risk (Firmansyah & Febriyanto, 2018a) increase the cost of equity. In the context of earnings management, REM relates to information risk. REM as a signaling tool can reduce information risk, on the other hand, REM as an opportunistic behavior can increase information risk. This research argues that REM as a signaling tool can decrease information risk by reducing information asymmetry between firms and investors, further, it leads to a lower cost of equity.

Market share represents one of the factors influencing the costs associated with REM. It refers to the proportion of the market that is captured by firms operating within a particular industry . Market share serves as an indicator of a firm's performance in leading market competition. For firms with low market share, engaging in REM becomes costly. REM involves deviating from regular business activities, which can create additional pressure when competing against rivals (Zang, 2012) On the other hand, companies with a large market share have a strong position in the market. They enjoy benefits like a lot of experience, the chance to reduce costs because of larger production, better negotiating power with suppliers and customers, more interest from investors, and the ability to impact their competitors.

Financial health is also one of the costs of REM. Financial health defines the firm's state of financial condition (Erin et al., 2020). Poor financial health is usually related to financial distress and difficulties (Irani & Oesch, 2016). Deviating the normal business activities needs more financial support to cover the abnormal business cost (Zang, 2012). It indicates that firms with better financial health can engage more in REM.

On one hand, REM increases the cost of equity. REM is used to boost up the earnings number to cover up bad performance (Markarian & Santalo´, 2014). In this case, the investor cannot evaluate the actual performance. The investor bears more information risk when they make investment decision (Firmansyah & Febriyanto, 2018b). Since investors have more risk, they expect a high rate of return for their investment. The high expected rate of return by the investor is an indicator of the high cost of equity for firms. (Firmansyah & Febriyanto, 2018b) find that REM has a positive effect on the cost of equity.

Additionally, certain studies have explored the aspect of information communication associated with earnings manipulation, especially with regards to future earnings and company success. (Gunny, 2010) discovered that the manipulation of earnings can result in a favorable impact on future earnings, while (Shabrina & Habiburahman, 2025) emphasized that companies that achieve or exceed earnings targets through earnings manipulation may indicate managerial proficiency or future company success. (Erin et al., 2020) established a positive correlation between earnings manipulation and economic value added in the Association of Southeast Asian Nations (ASEAN), implying that earnings manipulation techniques can aid in improving company worth.

It is noteworthy that some research suggests a detrimental impact of earnings manipulation on the expense of equity. (Roychowdhury, 2006) and (Bansal et al., 2021) present proof indicating that earnings manipulation may lead to an escalation in the cost of equity. The correlation between earnings manipulation, information transmission, and the expense of equity is intricate and can be influenced by a range of factors, including the specific form of earnings manipulation, the business setting, and the research methodology used. Further investigation is required to gain a comprehensive understanding of the mechanisms and repercussions of earnings manipulation on the cost of equity.

Market share shows industry position and competitive advantage. High market share indicates low operational risk and can explain the company's situation to investors (Zang, 2012)Market share is an important factor in determining the price of a stock. (Nuryanti & Suryandani, 2025) explains that a large market share gives firms competitive advantages because they have greater cumulative business experience, greater bargaining power with customers and suppliers, and greater investment attention. Higher cumulative business experience gives companies the best chance to get a better investment opportunity The better bargaining power of customers and suppliers also allows companies to get more profit and growth, which also helps companies get better investment opportunities.

Overall, the relationship between market share, REM, information risk, and the cost of equity is complex and context-dependent. The specific circumstances of a firm, industry competition, and the nature of REM practices can all influence the outcome. Further research is necessary to better understand the nuances and implications of these relationships.

H1: Market share weakens (strengthens) positive (negative) effect of REM on the cost of equity

According to Andreou, (Andreou et al., 2021a) robust financial conditions of companies result in a higher value of the stock market. When a company has a strong financial health, it indicates low financial risk to investors and reduces the cost of equity Schober, (Schaeffler & Weber, 2013), (Andreou et al., 2021a) proposes that better financial health leads to improved financial performance, which is an indication of lower financial risk (Erin et al., 2020). Conversely, lower financial health signifies financial distress, which leads to higher financial risk (Gichaiya et al., 2019). As a result, healthy companies have a lower cost of equity, providing a lower investment risk for investors (Schaeffler & Weber, 2013). Zang (2012) study highlights the connection between financial health and the cost of earnings management (REM), which suggests that companies with poor financial health may find it costly to deviate from optimal business strategies, such as engaging in REM, as their primary goal is to improve operations and address financial difficulties.

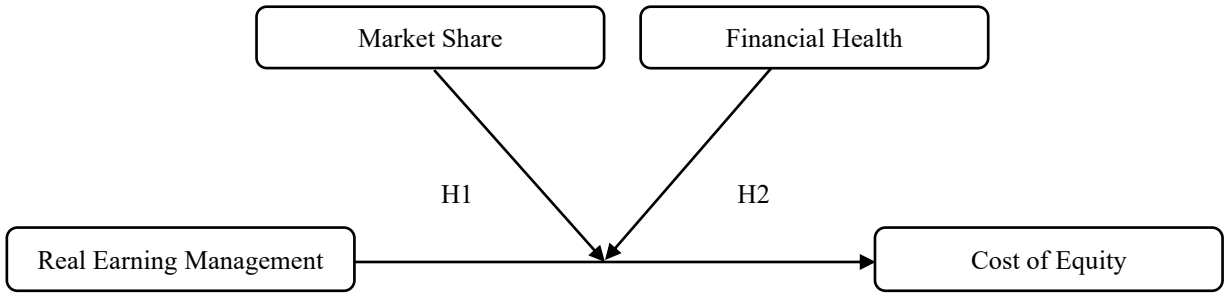
In situations where companies are at risk of bankruptcy or have weak financial stability, they may resort to manipulative tactics in managing their earnings, which can conceal these issues. This can pose

difficulties for investors in acquiring truthful data about the company's financial status, resulting in higher expenses related to information and a probable rise in equity costs Abernathy, (C. A. Jiang et al., 2015). On the other hand, REM can also serve as an information signaling mechanism for firms with healthy financial conditions. By engaging in REM activities such as generating higher sales, cutting expenses (such as R&D or advertising), or increasing production, these firms communicate their ability to address financial challenges and maintain a strong financial position. This can reduce information risk for investors and potentially lower the cost of equity.

The cost of REM, therefore, can be influenced by the financial health of the firm. Firms in poor financial health may perceive REM as relatively costly due to the potential risks and consequences associated with their financial difficulties. In contrast, firms with healthy financial conditions may use REM strategically to signal their financial strength and competence. It is important to note that the relationship between financial health, REM, and the cost of equity can vary across different contexts and situations. Further research is needed to examine these relationships in specific industries and under different financial conditions to gain a more comprehensive understanding of their implications.

H2: Financial health weakens (strengthens) positive (negative) effect of REM on the cost of equity

The following picture is a research framework that had described the problems of the research, as explained previously.



Source: Research Data, 2024

Picture 1.
Research Model

RESEARCH METHOD

Looking at REM practices in Indonesia, with its special market features and corporate governance setup, can offer important understanding of how earnings management works in developing markets. studied ASEAN countries, such as Indonesia, and pointed out how important REM activities are in places where government policies are weak and market structures are not fully developed (D. A. Cohen et al., 2008). This suggests that REM practices may have greater explanatory power compared to accrual-based earnings management in such contexts. Given Indonesia's corporate governance score and low levels of disclosure and transparency, as indicated by the ASEAN Capital Market Forum and Asian Development Bank reports, there may be an increased likelihood of REM practices being prevalent in Indonesian listed firms. Studying financial reporting practices, including earnings management, in Indonesian listed firms can shed light on the effects of REM in an environment characterized by information asymmetry and potential market growth.By looking at REM practices in Indonesia, researchers can help us understand the special ways earnings management works in growing markets, especially in situations where there is less regulation and transparency.

The research sample includes manufacturing companies listed on the Indonesian Stock Exchange from 2019 to 2021. This study uses financial statement data that can be accessed for free from the Indonesian Stock Exchange. The financial statement information on the exchange is only updated and

complete for the past three years, so the research focuses on the years 2019 to 2021. Manufacturing has been the leading contributor to the national economy of Indonesia for the past two decades, and therefore, it is crucial to scrutinize the business practices of this sector Badan-Pusat-Statistik-[Statistics-Bureau], (2015). Manufacturers can not only focus on REM practices but also on overselling and overproduction, while reducing discretionary expenses as compared to other industries.

The dependent variable in this study is the cost of equity. The cost of equity is the return that investors expect to earn from stocks. Researchers use the Ohlson model to measure the cost of equity. This study selects the Ohlson model because it is the top model for connecting stock prices and returns with the book value of equity and earnings-based valuation. This is relevant to the research on REM, which relates to earnings and book value of equity. The Ohlson model is presented as follows:

$$r_t = \frac{BV_t + EPS_{t+1} - P_t}{P_t} \quad \text{.....(1)}$$

$$EPS_{t+1} = EPS_t + \delta \quad \text{.....(2)}$$

The study leverages manufacturing companies to avoid industry impact even with REM practices. Manufacturers can cover not only REM practices, but also overselling and overproduction, minimizing discretionary spending compared to other companies in different industries. Free access to the full survey data has been available on his website at the Indonesia Stock Exchange for the past three years only:

$$CFO_t = a + b0\frac{1}{Assets_{t-1}} + b1\frac{Sales_t}{Assets_{t-1}} + b2\frac{\Delta Sales_t}{Assets_{t-1}} + e_t \quad \text{.....(3)}$$

Abnormal operating cash flow (abnormal CFO) is used to measure sales manipulation activity. In Equation 2, the value of et represents Abnormal CFO, which is used as an indicator of REM (Cohen et al., 2008) To estimate over-production activity, the equation will be utilized as follows, as proposed by Roychowdhury (2006):

$$Prod_t = a + b0\frac{1}{Assets_{t-1}} + b1\frac{Sales_t}{Assets_{t-1}} + b2\frac{\Delta Sales_t}{Assets_{t-1}} + b3\frac{\Delta Sales_{t-1}}{Assets_{t-1}} + e_t \quad \text{.....(4)}$$

Abnormal production (abnormal PROD) is used to measure overproduction activity. In Equation 3, the value of et represents Abnormal PROD, which serves as an indication of (Cohen et al., 2008). A positive value of abnormal PROD is indicative of REM. To estimate discretionary expenses cutting, the equation to be utilized is as follows, as proposed by Roychowdhury (2006):

$$Discretionary\ expenses_t = a + b0\frac{1}{Assets_{t-1}} + b1\frac{Sales_t}{Assets_{t-1}} + e_t \quad \text{.....(5)}$$

Abnormal Discretionary Spending (DINEXP Abnormal) is used to measure the decline in discretionary spending. Anomaly DINEXP is the value of et in Equation 4. REM display is abnormal DINEXP negative value (D. A. Cohen et al., 2008).

If a firm's management is involved in one form of REM activity, it is likely to be engaged in other types of REM activity as well, as suggested by studies conducted by (Cohen et al., 2008) and (Chi et al., 2011). This research will utilize a combined measure of three types of REM activities, incorporating the findings of (Cohen et al., 2008) and (Chi et al., 2011).

$$REM = -standardized\ abnormal\ CFO + standardized\ abnormal\ PROD - standardized\ abnormal\ DISEXP \quad \text{.....(6)}$$

This study looks at market share and financial health as factors that influence the costs of REM. Market share shows how a company stands in its industry and how it competes with others. It is calculated by dividing a company's total sales by the total sales of the industry group, which is identified by a three-digit industry code, at the start of the period (Abernathy et al., 2014). Financial health is measured using Altman's z-score from 1968 at the start of the period. (Matturungan, (2017) Matturungan

(2017) explain that Altman's z-score can predict financial trouble with an accuracy of 87.8 percent for Indonesian manufacturing companies, labeling them as "good." Therefore, this study can use Altman's z-score to evaluate financial health, with a higher score meaning the company is in better financial shape. The formula for Altman's (1968) z-score is as follows: [Provide the formula for Altman's z-score].

$$Z = 1.2\,X1 + 1.4\,X2 + 3.3\,X3 + 0.6\,X4 + 0.999\,X5 \quad \ldots\ldots(7)$$

The control variables in this study are size, profitability, growth chances, sales, liquidity, and management methods. These variables are associated with controlling factors that can influence abnormal activity and distinguish it from REM symptoms (F. Jiang et al., 2015). Size, profitability and growth potential are particularly important when assessing whether the assets under consideration are the result of normal business conditions or potential revenue development. The larger the firms, the higher the political costs (Roychowdhury, 2006), which also lead to higher equity costs. Since profitability is a measure of operational risk, high profitability reduces operational risk and lowers the cost of equity capital (Roychowdhury, 2006). Profitability is assessed through return on capital, growth in profits, and indicators of losses. The potential for growth is determined by the market value to asset ratio in the initial period (MVAt-1). This study uses MVAt-1 because it allows shareholders to benefit from future growth opportunities (in period t) (F. Jiang et al., 2015), state that a high MVA shows a strong market value, which can lead to a lower cost of equity capital. Since sales reflect operational risk, higher profitability decreases this risk and reduces the cost of equity capital (F. Jiang et al., 2015). High liquidity suggests low financial risk, and this low risk contributes to a lower cost of equity capital (F. Jiang et al., 2015), Liquidity is evaluated using the current ratio. The governance mechanism serves to monitor risk in financial statement information, which includes the roles of creditors, auditors, and shareholders. The creditor's role is measured by the debt ratio. Using debt financing can help monitor and reduce agency problems since financial intermediaries keep an eye on the managers of the borrowing company. The auditor's role is assessed by their reputation; a well-regarded auditor ensures the quality of financial statements and decreases information risk (F. Jiang et al., 2015). The shareholder's influence is measured by management, institutional, and foreign ownership. A strong role for shareholders means better monitoring, which helps lower information asymmetry and reduces the cost of equity capital (F. Jiang et al., 2015).This research will use panel regression with firm fixed-effect control as a hypotheses test. The regression model is as follow. All variables definitions in equation 1 until equation 8 are in table 1.

$$R_t = \alpha + \beta_1 REM_t + \beta_2 REM_t * MS_{t-1} + \beta_3 REM_t * z_{t-1} + \beta_3 MS_{t-1} + \beta_4 z_{t-1} + \beta_5 SIZE_t + \beta_6 MVA_{t-1} + \beta_7 ROA_t + \beta_8 EG_t + \beta_9 LOSS_t + \beta_{10} SALES_t + \beta_{11} CR_t + \beta_{12} DAR_t + \beta_{13} AUDIT_t + \beta_{14} MAN_t + \beta_{15} INS_t + \beta_{16} FOR_t + \sum firm + e$$

Table 1.
Variables Definitions

Variable		Definition
R_t	=	Cost of equity capital period t
P_t	=	Stock price at publication date of financial statement period t
BV_t	=	Book value of equity per share period t
EPS_{t+1}	=	Estimation of earnings per share period t+1
EPS_t	=	Actual earnings per share period t
δ	=	Average of earnings per share growth in five years. Since this research could not finds forecast of earnings per share growth of Indonesian firm by analyst.
$Assets_{t-1}$	=	Total assets period t-1
CFO_t	=	Cash flow from operation period t divided by assets period t-1
$Sales_t$	=	Sales period t
$\Delta Sales_t$	=	Change of sales period t
$Prod_t$	=	Cost of production period t ([inventory period t minus inventory period t-1 plus cost of good sold period t] divided by assets period t-1)
$Sales_t$	=	Sales period t
$\Delta Sales_t$	=	Change of sales period t (sales period t minus sales period t-1)
$\Delta Sales_{t-1}$	=	Change of sales period t-1(sales period t-1 minus sales period t-2)

Variable		Definition
Discretionary Expenses$_t$	=	(Sales and General Administration Expenses period t plus Research and Development period t) divided by assets period t-1
Standardized abnormal CFO	=	(abnormal CFO – mean of abnormal CFO) divided by standard deviation of abnormal CFO
Standardized abnormal PROD	=	(abnormal PROD – mean of abnormal PROD) divided by standard deviation of abnormal PROD
Standardized abnormal DISEXP	=	(abnormal DISEXP – mean of abnormal DISEXP) divided by standard deviation of abnormal DISEXP
X1	=	Working capital divided by total assets
X2	=	Retained earnings divided by total assets
X3	=	Earnings before interest and tax divided by total assets
X4	=	Market value of equity divided by total liabilities
X5	=	Sales divided by total assets
REM_t	=	Real earnings management period t
MS_{t-1}	=	Market share period t-1 (beginning period t)
Z_{t-1}	=	Financial health period t-1 (beginning period t)
$SIZE_t$	=	Firm size period t (logarithm natural of total assets period t)
MVA_{t-1}	=	Market value to assets ratio period t-1 (market value of equity in beginning period divided book value assets in beginning period)
ROA_t	=	Return on assets period t (net income period t divided by lagged total assets)
EG_t	=	Earnings growth ([net income period t minus net income period t-1] divided by lagged total assets)
$LOSS_t$	=	Losses indicator period t (1 if firm have negative earnings, 0 otherwise)
CR_t	=	Current ratio period t (current assets period t divided by current liabilities period t)
DAR_t	=	Debt to assets ratio period t (total debt period t divided by total assets period t)
$AUDIT_t$	=	Auditor reputation (1 if firm auditor is big four auditor, 0 otherwise)
MAN_t	=	Managerial ownership period t (share owned by management period t divided by outstanding share period t)
INS_t	=	Institutional ownership period t (share owned by institution period t divided by outstanding share period t)
FOR_t	=	Foreign ownership period t (share owned by foreign period t divided by
Continue:		outstanding share period t)

Source: Processed Data, 2023

RESULT AND DISCUSSION

The research sample consists of 375 manufacturing firms-years. The selection process of the sample can be observed in Table 2.

Table 2.
Research Sample

Selection		Firm	Firm-Year
Manufacture firms listed in Indonesian Stock Exchange 2013-2015		130	390
Less:	Change financial statement period during research period	(4)	(12)
	Incomplete data	(1)	(3)
Total		125	375

Source: Statistics Output, 2023

Table 3.
Descriptive Statistics

	Mean	Maximum	Minimum	Standard Deviation
R	0,290	19,267	-52,497	5,912
REM_CFO	0,000	0,464	-0,820	0,128
REM_DISEXP	0,000	0,557	- 2,518	0,205
REM_PROD	0,000	0,940	-1,783	0,267
REM	0,000	7,135	-10,754	2,264
MS	0,142	1,000	0,000	0,210
Z	6,811	832,276	-214,093	47,36
SIZE	12,288	14,389	10,561	0,693
MVA	1,119	17,947	0,0291	2.124
ROA	0,057	2,540	-0,602	0,182
EG	-0,005	2,535	-2,000	0,189
SALES	1,215	7,435	0,000	0,790
CR	6,130	653,970	0,013	43,354
DAR	0,566	4,980	0,000	0,510
MAN	0,032	0,700	0,000	0,092
INS	0,697	0,989	0,000	0,206
FOR	0,367	0,989	0,000	0,334

REM_CFO = Negative value of abnormal CFO
REM_DISEXP = Negative value of abnormal DISEXP
REM_PROD = Positive value of abnormal PROD

Source: Statistics Output, 2023

Table 3 provides descriptive statistics of the research variables based on the 375 observations. According to Table 3, REM through abnormal production cost has the highest value (0,940462), followed by REM through abnormal discretionary expenses (0,55705), and REM through abnormal CFO (0,46469). This indicates that in Indonesia, firms are more likely to engage in REM through over-production. On average, firms in Indonesia have a cost of equity of 0,290279.

Table 4.
Regression Test

Variable	Coefficient	t-Statistic	Sig.
REM	0,370	3,161	0,001*
REM*MS	-0,470	-1,705	0,089***
REM*Z	-0,004	-3,048	0,002*
MS	-11,783	-4,491	0,000*
Z	-0,016	-4,583	0,000*
SIZE	9,629	5,859	0,000*
MVA	0,075	1,244	0,214
ROA	5,705	6,245	0,000*
EG	-0,708	-0,892	0,373
LOSS	0,272	0,740	0,459
SALES	0,009	0,056	0,955
CR	-0,002	-0,820	0,412
DAR	-7,805	-8,336	0,000*
AUDIT	-3,990	-1,709	0,088***
MAN	-2,579	-0,339	0,734
INS	-3,636	-1,178	0,239
FOR	0,135	0,397	0.691
Constant	-108,126	-5,478	0,000*
Dependent variable	Cost of equity		
Adjusted R-squared	0,906		
F-statistic	26,718		
Sig. (F-statistic)	0.000***		
*Significant in 1 percent			

**Significant in 5 percent
***Significant in 10 percent
Source: Statistics Output, 2023

This research primarily uses firm fixed-effect regression for its analysis, and the findings are displayed in table 4. According to table 4, in the non-moderating analysis, REM shows a coefficient value of 0,261341 and a significance value of 0,0128, which is significant at 5 percent. This indicates that REM positively influences the cost of equity. In the moderating analysis, the interaction between REM and market share (REM x MS) has a coefficient value of -0,470205 and a significance value of 0.0894, which is significant at 10 percent. This means that market share influences how REM affects the cost of equity. Additionally, the interaction between REM and financial health (REM x Z) shows a coefficient value of -0,004479 and a significance value of 0,0026, which is significant at 1 percent. This indicates that financial health also moderates the impact of REM on the cost of equity.

The aim of this study is to explore how market share and financial health influence REM and the cost of equity. This research helps to close the gap in earlier studies regarding the relationship between REM and the cost of equity by analyzing how market share and financial health can explain REM as a signal that lowers the cost of equity. According to the regression test, REM positively impacts the cost of equity, which aligns with findings from past research. REM activities raise the cost of equity because they create less clear earnings and provide limited information about the company (F. Jiang et al., 2015) This situation increases information asymmetry (F. Jiang et al., 2015) and makes it difficult for investors to assess the company's true performance.

The key finding indicates that market share influences how REM affects the cost of equity. This finding confirms that the research hypothesis is valid. Market share reduces the positive impact of REM on the cost of equity. REM, as information signaling, communicates the firm position within the industry as a market leader. Since low market share gives a disadvantage for firms, it can lead firms to engage in opportunist REM to cover up the weak market position. On the other hand, it is less costly for firms with high market share to engage in REM and give a signal of competitive advantage as a market leader. Firms with high market share have more cumulative business experience, have more bargaining power to customers and suppliers, and get more attention from the investor that allows firms to have to get better investment opportunity and offer a low risk of investment for the investor. In this case, firms engage in REM to communicate that they, as a market leader, have a low cost of REM and bring competitive advantage to reduce investment risk for the investor. This research is consistent with (F. Jiang et al., 2015) who find that market leader firms with high market share have lower cost of equity compare to other firms. Firms can get the benefit of low cost to raise funds from equity if they engage in REM as a market leader.

The main finding also indicates that financial health influences how REM affects the cost of equity. This means that the research hypothesis is supported. Financial health reduces the positive The impact of real earnings management (REM) on the cost of equity is significant. On one side, companies with weak financial health often resort to earnings management to hide their bankruptcy issues. On the flip side, financially strong companies find it cheaper to use REM to show they are in good shape financially. These healthy firms have lower financial risks and better performance, which means they can offer investors a safer investment option. In this scenario, these companies use REM to signal that, as strong firms, they have a lower cost of REM and present less financial risk, which helps decrease investment risk for investors. This research is consistent with previous findings that show lower financial risk leads to a lower cost of equity (Andreou et al., 2021b; Schober et al., 2014b). Firms can get the benefit of low cost to raise funds from equity if they engage in REM in a healthy financial condition.

Overall, market share and financial health help REM act as a signaling tool that lowers the cost of equity. The function of REM as a way to provide information aligns with the findings of (Liang et

al., 2024),who show that earnings management signals positive future performance. This research only looks at upward REM, where the main goal is to prevent losses and meet earnings targets (Roychowdhury, 2006). It does not address downward REM as a signaling tool since downward REM occurs in specific situations like share buybacks, management buyouts, or CEO option awards (Roychowdhury, 2006).

To make sure the findings are strong, this research will use different ways to measure REM and will compare these results with the main analysis. The study will look at each part of REM on its own, which includes unusual CFO, unusual production, and unusual discretionary expenses.

Control variables in this study include size, profitability, growth opportunities, sales, liquidity and management mechanisms. These variables are associated with controlling factors that can influence abnormal activity and distinguish it from REM symptoms (Roychowdhury, 2006). Size, profitability and growth potential are particularly important when assessing whether the observed activities are the result of normal business conditions or potential revenue development. The larger the firms, the higher the political costs (Roychowdhury, 2006). Which also lead to higher equity costs. Since profitability is a measure of operational risk, high profitability reduces operational risk and lowers the cost of equity capital (Roychowdhury, 2006). Profitability is measured by return on capital, profit growth and loss indicators. Growth potential is measured by the ratio of market value to assets in the initial period (MVAt-1). In this study, MVAt-1 is used because shareholders can enjoy the results of growth opportunities in the future (in period t) (Roychowdhury, 2006). A high MVA has an attractive market value and leads to a low cost of equity capital. Since sales are an indicator of operational risk, high profitability reduces operational risk and lowers the cost of equity capital (Roychowdhury, 2006). High liquidity implies low financial risk, and furthermore, low financial risk leads to a low cost of equity capital (Roychowdhury, 2006). Liquidity is measured by the current ratio. The management mechanism is used as a risk monitoring role for financial statement information. The governance mechanism is the roles of creditor, auditor and shareholders. The role of the creditor is measured by the debt ratio. Found that debt financing can be used as a monitoring tool to mitigate agency problems, as financial intermediaries monitor the managers of the borrowing firm (Roychowdhury, 2006). The auditor's role is measured by the auditor's reputation. A reputable auditor maintains the quality of financial statements and reduces information risk (Roychowdhury, 2006). The role of the shareholder is measured based on management, institutional and foreign ownership. A strong shareholder role indicates effective monitoring, it also reduces information asymmetry and lowers the cost of equity capital (Roychowdhury, 2006).

The reasons companies use Real Earnings Management (REM) often come from wanting to prevent losses or to hit earnings targets, as pointed out by (Roychowdhury, 2006) found that companies that meet or surpass their earnings goals are more likely to use REM techniques. So, this study will use meeting or beating earnings targets as a sign of REM practices.To find suspect firm-years, which are companies that meet or exceed the earnings target, we will use these criteria: the return on assets (ROA) must be greater than zero but less than 5 percent, or there must be a positive change between the current ROA and the previous ROA that is also between zero and 5 percent (Simamora et al., 2022). We will assign a dummy variable called the suspect firm-year a score of 1 if the company meets or beats the earnings target, and 0 if it does not. This variable will help us identify companies that might be using REM practices.

Table 5 shows the results about how different REM measures affect the cost of equity. The findings for REM measures one, two, four, and five match the main analysis, suggesting that REM practices increase the cost of equity. This means that companies involved in REM activities tend to have higher costs of equity. The results from measure three show that the cost of equity reacts to the REM measurement of unusual discretionary expenses. In Indonesia, unusual discretionary expenses are the least common REM activity, which leads investors to not view these expenses as the only factor for determining expected returns. Measure six reveals that the cost of equity is also affected by REM related

to abnormal activities and by how firms perform against earnings benchmarks (Roychowdhury, 2006). This study suggests that companies that meet or exceed earnings benchmarks might not always be using REM practices. They might achieve their results through regular business activities without manipulating their earnings. Additionally, it's not just companies that report zero earnings that might engage in real activities manipulation; other firms with earnings well above zero might also have reasons to lower their earnings to show profits just above zero. This tactic helps them build reserves for future periods. Therefore, the reasons why companies aim to meet or beat earnings benchmarks can differ, and it doesn't always mean they are involved in REM. The interaction between market share and REM options one and four shows a negative impact on the cost of equity capital, which is in line with the main analysis results. However, the interaction of market share and REM does not influence the cost of equity for alternative REMs two, three, five, and six, which does not align with the main analysis findings. This suggests that the effect of market share reduction varies depending on how REM is measured, especially between REM functions that involve overselling (like REM_CFO and REM_DISEXP) and those that do not. This study looks at the market share of companies within an industry group.

Table 5.
Comparison Between REM Measurements

	Coefficient					
	Alternative (1)	**Alternative (2)**	**Alternative (3)**	**Alternative (4)**	**Alternative (5)**	**Alternative (6)**
REM Measurement	**REM_CFO**	**REM_PROD**	**REM_DISEXP**	**REM_DISEXP + REM_CFO**	**REM_DISEXP + REM_PROD**	**Suspect Firms**
REM	4,788*	2,914**	-1,100	2,991*	2,363**	0,490
REM*MS	-16,052**	-4,457	1,322	-2,998**	-2,491	3,003
REM*Z	-0,129**	-0,024*	-0,062**	-0,060*	-0,022*	-0,052
MS	-11,518*	-12,028*	-12,704*	-12,054*	-12,084*	-13,282*
Z	-0,014*	-0,017*	-0,015*	-0,014*	-0,017*	-0,014*
SIZE	9,696*	9,827*	9,546*	9,494*	9,894*	8,940*
MVA	0,066	0,072	0,068	0,077	0,072	0,060
ROA	5,689*	5,681*	5,774*	5,710*	5,590*	6,111*
EG	-0,993	-0,806	-0,833	-0,700	-0,655	-1,453***
LOSS	0,255	0,228	0,184	0,255	0,2746	0,436
SALES	0,014	-0,031	-0,089	-0,018	-0,033	-0,125
CR	-0,002	-0,002	-0,001	-0,002	-0,002	-0,001
DAR	-7,971*	-7,602*	-7,629*	-7,793*	-7,590*	-7,487*
AUDIT	-3,710	-3,493	-2,495	-3,570	-3,433	-1,921
MAN	-2,836	-2,175	-1,371	-2,332	-2,335	-0,785
INS	-3,600	-3,820	-3,627	-3,634	-3,988	-3,252
FOR	0,084	0,073	-0,078	0,073	0,090	-0,085
Constant	-109,033*	-110,613*	-107,481*	-106,582*	-111,371*	-100,686*
Dependent Variable	**Cost of Equity**	**Cost of Equity**	**Cost of Equity**	**Cost of Equity**	**Cost of Equity**	**Cost of Equity**
Adjusted R-squared	0,906	0,904	0,902	0,906	0,904	0,901
F-statistic	26,672	26,043	25,598	26,567	26,15802	25,359
Sig. (F-statistic)	0,000***	0,000***	0,000***	0,000***	0,000***	0,000***

Continue:
*Significant in 1 percent
**Significant in 5 percent
*** Significant in 10 percent

Source: Statistics Output, 2023

The relationship between financial strength and REM has an impact. Options 1 to 5 relate to REM. Our main analysis shows that the interaction between financial strength and REM negatively affects the cost of equity for enterprise value. However, this interaction does not influence the cost of equity for alternative 6 REM, which shows a difference from our primary findings. This highlights how financial health can be affected by REM, depending on unexpected activities and REM based on corporate expectations linked to exceeding earnings targets. This occurs because companies might not always meet revenue benchmarks through regular operations. A strong focus on REM is always seen as important (Roychowdhury, 2006).

CONCLUSION AND RECOMMENDATION

This study examines how market share and financial strength influence the relationship between real earnings management (REM) and the cost of capital. The findings show that market share enhances the positive effect of REM on the cost of capital, indicating that REM can provide a competitive advantage due to a stronger position within the industry and the ability to reduce information risk. Strong financial strength also mitigates the negative impact of REM on the cost of capital, suggesting that REM can improve a company's financial health and lower information risk. REM offers a better understanding of industry conditions through oversold situations, while all REM characteristics—including oversold items, overproduction, and cuts in discretionary spending—provide deeper insights into economic conditions. These results have implications for academics, financial statement users, and regulators as an additional body of literature on REM as an informational signal of market share and financial health in reducing equity costs. For corporate management, the findings can serve as guidelines for financial reporting policies to effectively communicate REM, enabling companies to lower capital costs and increase capital resources for investors. For regulators, the study supports the development of additional corporate governance rules to detect unusual activities in companies or industries, while for investors, REM can be analyzed to assess whether it reflects opportunistic behavior or serves as an informational signal when determining expected investment returns.

This study has limitations in that it does not consider the potential of down-REM as an informational signal, such as in share buybacks, management buyouts, and CEO option grants (Francis, Hasan, & Li, n.d.). Future research is encouraged to explore the potential of down-REM in these contexts to broaden the understanding of REM's signaling function. Furthermore, the study period, which only covers 2019–2021, represents another limitation. Subsequent studies should adopt a longer time frame to achieve more comprehensive results and stronger generalizability.

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