

# Real Earning Management, Governance Structures and Cost of Equity of the Companies Listed on the Market for Alternative Investment (MAI)

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## Abstract

The purpose of this research was to investigate the influence of the real earning management on governance structure and cost of equity as well as the influence of the governance structure on the cost of equity through real earning management. The research method was quantitative research. The samples were selected by collecting the finance reports of the companies registered in the Market for Alternative Investment (MAI) from the year 2016 to 2020. The data collected in this study were analyzed using the Structural Equation Model (SEM).

The results of the study were found that the development of the casual relations of the real earning management, the governance structure towards the cost of equity was appropriate and in congruence with the empirical data and the governance structure on the part of shareholders who had influences on the cost of equity, the proportion of the audit committee who were knowledgeable and skillful on finance and accounting, had influences on real earning management and real earning management had influences on the cost of equity with statistical significance at level 0.05.

**Keywords:** Real Earning Management, Structures of Shareholders, Audit Committee, Cost of Equity

## Introduction

Administrators are those who are responsible for doing and presenting a financial report to stakeholders, so they are able to use their consideration to do the financial report which is an opportunity to make earnings for themselves and friends. Healy and Wahlen (1999) claim that the earning management has created misunderstanding about operating the company among the stakeholders since the administrators use their discretion in doing the financial report and the business governance structure in order to modify the financial report.

Generally, earning management is divided into two types consisting of earning management through accrual earnings management (AEM) occurring when the administrators make decision to modify the financial data to create misunderstanding about operating the company outcomes (Dechow & Skinner, 2000; Healy & Wahlen, 1999; Jones, 1991) while the

administrators will do real earning management (REM) through regular activities using sales techniques, over production, discretionary expenses and earnings from the sales of fixed assets (Roychowdhury, 2006; Brown, Chen, & Kim, 2015; Graham, Harvey, & Rajgopal, 2005; Zang, 2012). Upon reviewing the past study of Ali and Kamardin. (2018), it was found that administrators had tendency to modify the earnings through the accrual earnings management (AEM) and the real earning management (REM) since there are strict accounting standards, laws, and rules or regulations of the governing offices, high quality of auditing, changing of sources of funds from internal to external markets, and using an international financial report system (IFRS).

Governing is a kind of mechanism in decreasing behavior of earning management of the administrators. The structure of the shareholders is important and influential on the governance and important for protecting investors (Djankov et al., 2008). The major shareholders have the right to vote in governing or have authority in controlling the business, have important roles in management policy making including having a big stake in the business. The shareholders give emphasis on the benefits and survival of the business in the long run but more on making their own benefits rather than external investors. A part from the structure of the shareholders who are the governing mechanism, the audit committee are also the governing mechanism for the utmost efficient business management. The committee mechanism is an important part in governing, auditing of the representative or administrative operation, and the efficiency of the committee will affect the business to be more effective (Fama & Jensen, 1983; Brennan, 2006) creating more reliability in the good controlling system of the business, especially in making and presenting the financial report (Bedard, Chtourrou, & Courteau, 2004). A sound governing will be able to decrease the cost of equity because it is a process of decreasing advantages of administrators towards investors, shareholders and stakeholders using internal data (La Porta et al., 2000).

Based on the aforementioned, the researchers realized the significance of the tendency of modifying the accrual earnings management (AEM) to be the real earnings management (REM). Thus, the researchers were interested in studying the relationship of the real earning management (REM), governance structure of the shareholders, audit committee, and the cost of equity of the companies listed at MAI stock market which offered opportunity for medium and small businesses to raise funds with emphasis on the businesses with high growth and tendency to grow well in the future.

## Objective

1. To investigate the influence of the governance structure towards the cost of equity.
2. To investigate the influence of the governance structure towards real earning management.
3. To investigate the influence of the real earning management towards the cost of equity
4. To investigate the influence of the governance structure towards the cost of equity through real earning management.

## Literature Review

Shareholders play a number of roles in businesses, being both stakeholders, governors, and influencers towards the motivation for administrators to manage earnings. Studies have shown that the shareholder structure in each form reflects that internal business governing has influences in making the motivation for the administrator to manage the data of earnings and profits in the report (Ball, Robin, & Wu, 2003; Fan & Wong, 2002; Wang, 2006). The earning management could be less or more depending on the power of governing of the shareholders. The earning management would increase if they want to seek for personal advantages, and would decrease if they want to protect investors (Djankov et al., 2008; Leuz, Nanda, & Wysocki, 2003). Based on a study of Bradbury, Mak, and Tan (2006), it was found that the shareholders were institutional investors with high proportion of investment and with the relationship in the same directions of the accrual earnings in administrators' discretion. However, Sarkar, Sarkar, and Sen (2008) did not find that the shareholders being investors had the relationship with the accrual earnings in view of the administrators at statistical significance level. Foreign shareholders could decrease the agency costs and increase the value of the company through spreading of positive impacts (Douma, George, & Kabir, 2006; Ferreira & Matos, 2008) by decreasing the company's cost (Bekaert & Harvey, 2000) through appropriate investment promotion for research and development (David et al., 2006) via influences of doing businesses (Yanadori, 2004; Mun & Jung, 2013). In the same manner, Ferreira and Matos (2008) and Aggarwal et al. (2011) found that the company's value increased significantly with the foreign investors. Chung, Ho, and Kim (2004) found that the foreign shareholders in Japan had an efficient inhibition of taking chances in management and decreasing of accrual earnings in view of administrators in the company with positive profits Guo et al. (2015) and with the proportion of higher foreign shareholders taking part in earning management less than in other companies. The businesses with the highest shareholder structure by family groups had more earning management than other companies by means of sales activities (Phattaranawig, 2012).

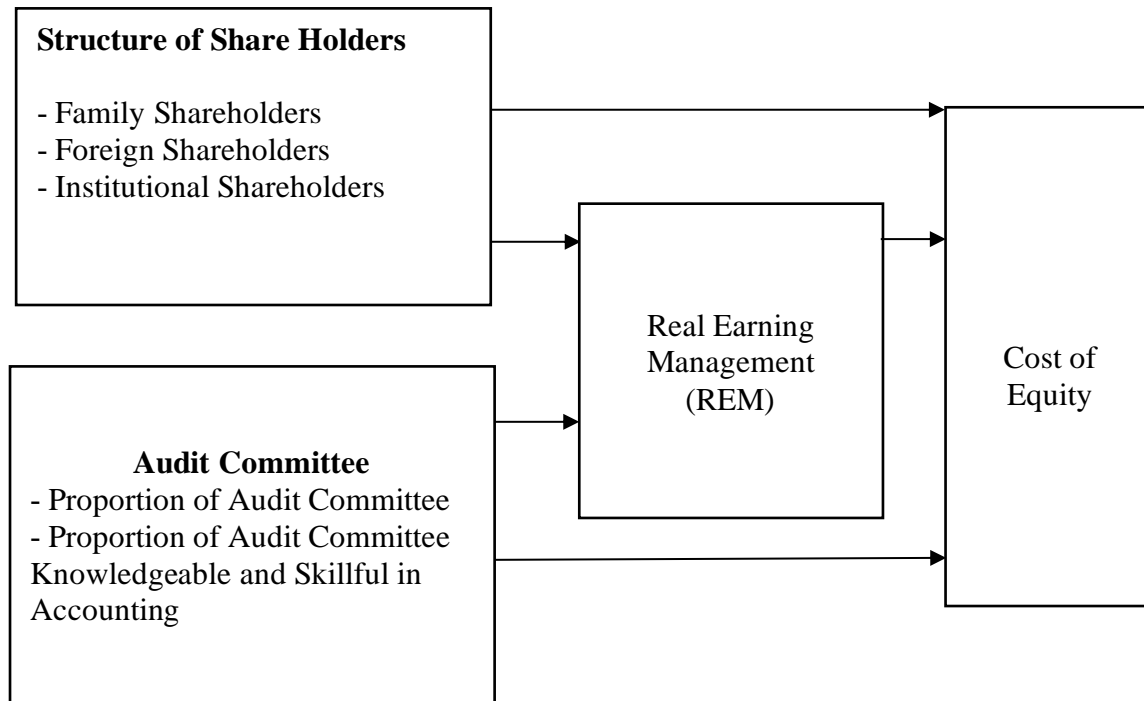
The structure of shareholders has impact on the cost of equity. Hayat et al. (2018) found that the proportion of the shareholders being the institutions has positive relationship with the cost of equity in the United States of America; however, in China the relationship is negative. While Masood (2014) did not find the relationship at a significant level between the proportion of the institutional shareholders but found that the structure of the shareholders with clusters of companies had negative relationship with the cost of equity. Nevertheless, Ahmad et al. (2018) did not find the relationship significantly. Ashbaugh, Collins, and LaFond (2004) found that the cost of equity had positive relation with the structure of the shareholders at 5% and above. Surifah, Ifah Rofiqoh, and Krismiaji (2019) studied the structure of the shareholders and found that it had impact on the cost of equity except those who were government organizations. Gao et al. (2020) examined the relation of hi-tech companies registered in the stock market in China, it was found that when compared with temporary institutional investors, the stabilized institutional investors intending to invest in a long term could effectively decrease their capital. Dakhlaoui and Gana (2020) showed the negative evidence between the clusters of ownership and the cost of equity. Muslim and Setiawan (2021) found that the structure of ownership of the institution and foreign countries had impact towards the capital of the shareholders.

The audit committee play roles in assisting the company committee in reviewing or examining the financial report including internal control of the business in order to ensure that the business has a good control system in making and presenting the financial report (Bedard, Chtourou, & Courteau, 2004). The external audit committee will be able to examine the work of the administrators independently, enabling decreasing the representative problems and decreasing motivation in administrators' earning management (Fama, 1980; Fama and Jensen, 1983). At the mean time Xie, Davidso, and DaDalt (2003) and Peasnell, Pope, and Young (2005) did not find the relationship at the significant level between the proportion of the independent audit committee, having the audit committee and accrual earnings management. Apart from being independent, knowledge and expertise in specific fields play an important part in work operation helping to decrease administrators' earning management via an evaluation of the knowledge and ability, independence of the auditor on accounting issues in items requiring discretion and other accounting issues (Bedard, Chtourou, & Courteau, 2004). DeZoort and Salterio (2001) stated that important errors on the financial report would increase when the audit committee were knowledgeable and skillful in accounting and finance (Bedard, Chtourou, & Courteau, 2004). The proportion of the committee having knowledge and skills on accounting and finance may they be certified auditors, finance analysts or having experience on accounting, had the relationship in an opposite way with the accrual earning depending on the administrators' judgement. (Xie, Davidson, & DaDalt, 2003; Bédard, Chtourou, & Courteau, 2004). However, the studies by Rahman and Ali (2006); Lin, Li, and Yang (2006) did not find the relationship at the significant level between the audit committee having knowledge and skills in accounting and finance and the accrual earning based on the administrators' discretion and modifying new items in the financial report.

Based on the review of the past studies, it was shown that the majority of the studies aimed at investigating the relationship between the audit committee and the accrual earnings management. Lenard et al. (2016) demonstrated that the weak point in an internal control of the companies in the United States had a positive relationship with the real earning management (Jarvinen and Myllymaki, 2016). Revealing of the weak point on internal control forced the administrators to lower negative reaction on marketing of the stakeholders by participating in the real earning management.

Previously, not many studies were conducted on real earning management which had influences on the cost of equity. The real earning management had a positive influence on the cost of equity (Dechow, Sloan, & Sweeney, 1996; Utami, 2005) which was in line with the studies by Francis et al. (2004), Gray, Koh, and Tong (2009) and Aboody, Hughes, & Liu (2005) who reported that the earning management through accrual earning management resulted in an increase of the cost of equity. Kim and Sohn (2013) found that the real earning management had positive relationship with the cost of the equity. Surifah, Ifah Rofiqoh, and Krismiaji (2019) examined the influence of the real earning management and the cost of equity of the companies registered at the stock market in Indonesia, it was found that the real earning management affected the cost of equity. Gao et al. (2020) examined the relationship of the Hitech companies registered at the stock market in China, it was found that the relationship towards the cost of equity was negative. However, McInnis (2010) reasoned that modifying the earnings to be smooth did not affect the cost of equity.

## Conceptual Framework



**Figure 1:** Conceptual Framework

## Research Methodology

### Population and Samples

The population for this study consisted of 180 companies registered at the MAI stock market during 2016 – 2020 (Stock Market of Thailand, 2021). The research samples were 62 companies (310 firm year) selected based on the criteria excluding financial industry companies, the companies to be revoked, the companies on restoration, service industrial company groups, and the companies with incomplete data.

### Research Instruments

This quantitative research was constructed and developed based on the conceptual framework derived from the collection of secondary data, related studies and literature reviews, data analysis using inferential statistics and influence analysis using path analysis by AMOS program.

### Data Collection

The data for the study were collected from the secondary sources, namely: annual data forms (56-1), annual and financial reports in the website of the Stock Exchange of Thailand ([www.or.th](http://www.or.th)), website of the Office of Governance Committee and Stock Market ([www.sec.or.th](http://www.sec.or.th)) and the website of SETSMERT (SET Marketing Analysis and Reporting Tool).

### Assessment of Research Variables

In this study the dependent variables were the cost of equity in the model form of computation using Capital Asset Pricing Model: CAPM.

$$K_e = R_f + \beta_i(R_m - R_f)$$

Where  $K_e$  refers to the cost of equity;  $R_f$  is the risk free rate;  $R_m$  is rate of return on the market portfolio, and  $\beta_i$  is the beta of the security.

The intermediate variables that linked and relayed the influence of causal factors at the origin to the destination were the real earning management using the form of Roychowdhury (2006) which assessed the real earning management through three equations, namely: estimation of abnormal cash flow from operations, estimation of abnormal discretionary expenses, estimation of abnormal production costs, and the variable affecting the real earning management.

Estimation of abnormal cash flow from operations:

$$CFO_t / A_{t-1} = \alpha_0 + \alpha_1 (1 / A_{t-1}) + \beta_1 (S_t / A_{t-1}) + \beta_2 (\Delta S_t / A_{t-1}) + \varepsilon_t \quad (1)$$

Where  $CFO_t$  is the cash flows from operations at the period  $t$ ;  $A_{t-1}$  is the total assets at the end of the period  $t-1$ ;  $S_t$  is the annual sale of the period  $t$ ;  $\Delta S_t$  is the change in the sales relative to the prior period.

Estimation of abnormal discretionary expenses:

$$DISEXP_t / A_{t-1} = \alpha_0 + \alpha_1 (1 / A_{t-1}) + \beta_1 (S_{t-1} / A_{t-1}) + \varepsilon_t \quad (2)$$

Where  $DISEXP_t$  is the total discretionary expenditures during the period  $t$ ;  $S_{t-1}$  is the annual sale of the period  $t-1$ .

Estimation of abnormal production costs:

$$PROD_t / A_{t-1} = \alpha_0 + \alpha_1 (1 / A_{t-1}) + \beta_1 (S_t / A_{t-1}) + \beta_2 (\Delta S_t / A_{t-1}) + \beta_3 (\Delta S_{t-1} / A_{t-1}) + \varepsilon_t \quad (3)$$

Where  $PROD_t$  is the sum of the cost of goods sold and changes in inventory during the year.

According to Ferentinou and Anagnostopoulou (2016), REM measurements can be calculated as one combined measure by multiplying abnormal CFO and DISX values by -1 and adding the abnormal PROD to one equation.

$$REM = ABCFO(-1) + ABDISX(-1) + ABPROD$$

Where REM is the real earning management; ABCFO is the abnormal cash flows from operations; ABDISX is the abnormal discretionary expenses; ABPROD is the abnormal production costs.

The governance structure consisted of structure of the shareholders being the proportion of family shareholders, proportion of foreign shareholders, proportion of institutions, and the audit committee. What to be assessed was the proportion between the audit committee and the proportion of the audit committee having knowledge and skills on finance and accounting.

## Research Findings

1. An analysis of correlation coefficient (Pearson correlation) in order to find the relationship of the independent variables, namely: the relationship of the family shareholders, foreign shareholders, institutional shareholders, and the audit committee considering the number of the audit committee and the number of the audit committee having knowledge and skills on finance and accounting, it was found that the relationship was not more than the set criterion of 0.65 as recommended by Burns and Grove (1993), causing no multicollinearity problem, thus being able to test the research hypothesis by an analysis of structure equation in the next stage.

### 2. Result of Structural Equation Modeling Analysis on the Assumption

The result of an analysis of the correlation coefficient on the causal relationship using over identified model based on the literature review and related studies, it was found from the beginning of the model on real earning management, governance structure and the cost of equity that it was not appropriate, not being in line with the set criteria, making the model of the study inconsistent with the empirical data. Therefore, a model consistent with the empirical data had to be developed. The result of which was in Figure 2 and the original empirical model was consistent with the theory and passed the evaluation criteria of the model as in Table 1.

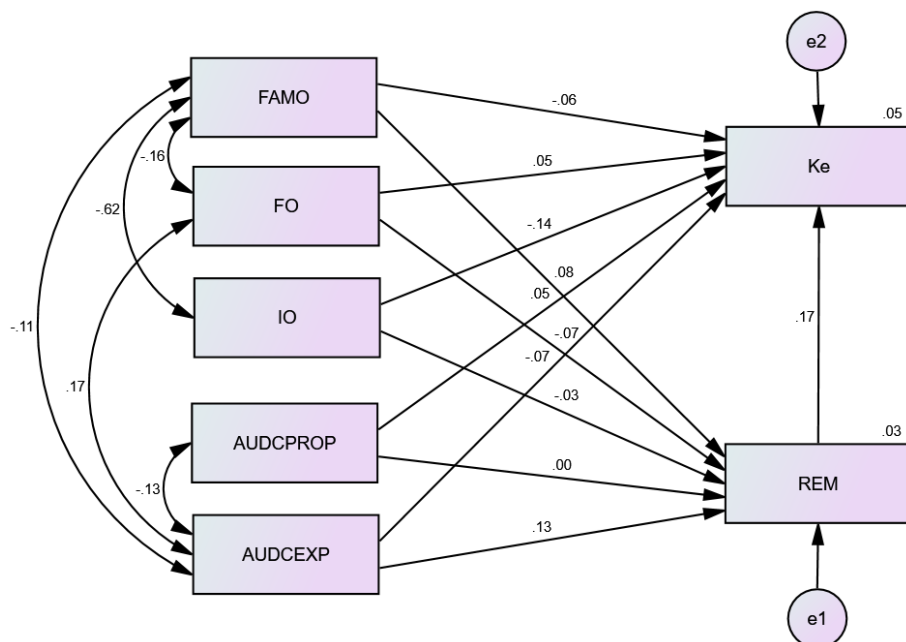


Figure 2: An Analysis Model Using Path Analysis after Adjusting

FAMO	= Proportion of family shareholders
FO	= Proportion of foreign shareholders
IO	= Proportion of institutions shareholders
AUDCPROP	= Proportion of audit committee
AUDCEXP	= Proportion of the audit committee having knowledge and skills on finance and accounting
REM	= Real earnings management
Ke	= Cost of equity in the model form of computation using Capital Asset Pricing Model: CAPM

**Table 1** Criteria and Result of Consistency by Theory and Empirical Data

Indicator	Model Fit	Research Result	Judgement
P – Value	$P > 0.05$	0.348	Consistent / Passed
$\chi^2/df$	$< 2$	1.119	Consistent / Passed
GFI	$> 0.95$	0.995	Consistent / Passed
AGFI	$> 0.95$	0.971	Consistent / Passed
RMSEA	$< 0.05$	0.020	Consistent / Passed
HOELTER	$> 200$	612	Consistent / Passed

After adjusting the model of relationship structure of the variables, it was found that there was good relationship between the variables. Therefore, the relationship model was used to find direct effect: DE, indirect effect: IE, and total effect: TE as in Table 2.

**Table 2** Direct effect, Indirect effect, and Total effect

Predictor Variable	Dependent Variables					
	Ke			REM		
	DE	IE	TE	DE	IE	TE
FAMO	-0.063	0.011	-0.052	0.065	-	0.065
FO	0.053	-0.012	0.041	-0.071	-	-0.071
IO	-0.143*	-0.005	-0.148	-0.031	-	-0.031
AUDCPROP	-0.016	-0.018	-0.033	-0.106	-	-0.106
AUDCEXP	0.079	-0.022	0.057	-0.133*	-	-0.133
REM	0.168*		0.168*			

\* Significant at level .05

From Table 2 above, considering the direct influence of the real earning management, governance structure consisting of the structure of family shareholders, foreign shareholders, institutional shareholders, and the audit committee assessing the proportion of the audit committee and the proportion of the audit committee having knowledge and skills on finance and accounting, it was found that the institutional shareholders had direct influence in an opposite direction towards the cost of equity equal 0.143. However, the real earning management had influence towards the cost of equity equal 0.168 with statistical significance at level .05. But the audit committee having knowledge and skills on finance and accounting had influence towards the real earning management in an opposite direction equal 0.133 with statistical significance at level .05.



## Discussion/Conclusion

The study of the real earning management, governance structures, and the cost of equity of companies listed on the Market for Alternative Investment (MAI) found that:

To investigate the influence of the governance structure towards the cost of equity

1. The study on the influence of governance structure on the cost of equity capital found that the governance structure, particularly in terms of institutional shareholder composition with a higher proportion, significantly and inversely affects the cost of equity. This aligns with Hayat et al. (2018)'s research, which observed that companies in China with a higher proportion of institutional shareholder are associated with lower cost of equity. This could be because institutional shareholders prioritize investment, governance, and value creation, leading investors to perceive lower risk and thus require a lower return on investment.

2. A study on the influence of governance structure on real earning management found that the governance structure, particularly the composition of the audit committee in terms of the proportion of the audit committee having knowledge and expertise on finance and accounting, significantly and inversely affects real earning management. This finding aligns with Marra, Mazzola, and Prencipe (2011), who observed a negative relationship between the financial and accounting expertise of the audit committee and real earning management. It suggests that companies with audit committees possessing financial and accounting expertise tend to have lower levels of real earning management. This underscores the importance of having audit committee members with financial and accounting skills to reduce real earning management, in line with the recommendations of the Securities and Exchange Commission that companies should have at least one audit committee member with expertise in finance and accounting.

3. A study on the impact of real earning management on the cost of equity found that real earning management significantly and positively influences the cost of equity. This aligns with the research by Francis et al. (2004), Gray, Koh, and Tong (2009), and Aboody, Hughes, and Liu (2005), which reported that accruals earnings management increases the cost of equity. Similarly, Kim and Sohn (2013) studied the positive relationship between real earning management and the cost of equity. Furthermore, Surifah, Ifah Rofiqoh, and Krismiaji (2019) examined companies listed on the Indonesian Stock Exchange and found that real earning management impacts the cost of equity. This suggests that real earnings management by executives leads to a higher cost of equity. This might be because investors perceive companies that earnings management as having financial reports that do not reflect their actual operational performance, leading to higher investment risk and thus requiring higher expected returns (cost of equity).

4. A study examining the influence of governance structure on the cost of equity through real earning management found that the governance structure, in terms of shareholder composition with a significant institutional shareholder proportion, directly impacts the cost of equity significantly but does not significantly directly influence real earning management. Analyzing the causal relationship path of institutional shareholder composition on the cost of equity through real earning management reveals an increased total effect. In contrast, the governance structure relating to the audit committee, particularly the proportion of audit committee having knowledge and expertise on finance and accounting, significantly impacts real earning management but does not have a significant direct effect on the cost of equity. When analyzing the causal relationship path of audit committee having knowledge and expertise on finance and accounting on the cost of equity through real earning management, the total effect decreases. This indicates that companies with both institutional shareholder

structures and audit committee having knowledge and expertise on finance and accounting tend to have reduced real earning management. As real earning management decreases, the cost of equity also reduces, likely because all stakeholders have increased trust in the company and perceive it as less risky, thus requiring a lower return to compensate for the reduced risk.

## Suggestion

Suggestions for future research are as follows:

1. Future research should include additional variables that influence real earning management. These could include factors such as effective corporate governance, the type of audit firm, audit fees, and issues related to real earning management in relation to the operational performance of businesses, represented by financial ratios.

2. This study focused solely on companies listed on the Market for Alternative Investment (MAI). Therefore, future studies should expand the sample to include companies listed on the Stock Exchange of Thailand (SET), which are larger, have diverse investment forms, and a variety of shareholder structures.

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