Real Earnings Management and Capital Structure Decision: The Role of Minority Interest

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Abstract. The corporate governance literature has widely recognized the role of debt contracts as a mechanism that can minimize agency problems arising from conflicts of interest between managers and capital owners and between minority and majority ownership. Our research seeks to investigate capital structure decisions in family firms. Our research involves earnings management proxies and minority interests. The main research question is whether minority interests play a role in influencing the earnings management and financing decisions of family firms. We use the panel data method and involve 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020. The results of the study prove that minority ownership plays a role in encouraging earnings management practices and capital structure decisions in family companies. The governance of family companies in Indonesia has allowed minority ownership to act as an external control mechanism. Even in family firms, our research proves that the presence of minority ownership remains an important part of family management decision making.

Keywords: Capital Structure · Earnings Management · Family Firm · Minority Interest

1 Introduction

The corporate governance literature has widely recognized the role of debt contracts as a mechanism that can minimize agency problems arising from conflicts of interest between managers and capital owners and between minority and majority ownership [1]. Our research seeks to investigate the effect of real earnings management on capital structure decisions and the role of minority ownership in determining capital structure policies. Earnings management has been a concern of researchers for decades [2]. This research is important because capital structure decisions are strategic decisions that can determine the company's operations in the future. Previous research has proven the importance of reviewing capital structure decisions as an effort to improve performance, company sustainability and even investment [3].

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We review the capital structure decisions made by family companies. Referring to [4] family companies have several specific characteristics that are interesting to study such as succession, family control and the desire to maintain the good name of the family. In addition, the facts show that family companies practice earnings management. For example, the results of research conducted by [5, 6] show that family companies in Indonesia still implement earnings management practices.

Our research is also motivated by inconsistent research results. Research conducted by [7] in the context of research in China found that minority shareholders have a very limited role as a tool or mechanism for external control. Reference [8] found that changes in ownership, both minority and majority ownership, will not change overall governance. Although several researchers have directly linked the role of minority ownership in earnings management, based on the knowledge of researchers, there has been no test of minority ownership in earnings management and capital structure decisions, especially in family companies.

The purpose of this study is to investigate the role of minority ownership in influencing earnings management and financing decisions, identify variations in the relationship between earnings management and financing decisions, minority ownership and financing decisions and explain these relationships through relevant theories.

Our research involved a total of 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020 with a total of 990 observations. Our data were analyzed using multiple regression methods and Moderated Regression Analysis (MRA). The results of the study prove that minority ownership plays a role in influencing earnings management and capital structure decisions. This research can contribute to several aspects. First, the development of earnings management literature, capital structure and family companies. Second, for the family company itself in developing governance and choosing effective capital structure decisions.

2 Literature Review

Capital structure is a concept that has long been a concern. Capital structure can be interpreted as a relative share of debt and equity financing [9]. Debt and capital are substitutes for financing and have broad implications. Studies related to capital structure and earnings management can be studied through pecking order theory.

2.1 The Relationship Between Earnings Management and Capital Structure

Previous research has proven the relationship between earnings management and capital structure. For example, research conducted by [10] examines the relationship between earnings management and the institutional environment's capital structure affecting the relationship between the two variables. The results of the study found a positive relationship between earnings management and the level of leverage. Then the research conducted by [11] in the context of companies in Africa found a close relationship between earnings management and capital structure. His research proves that earnings management is closely related to capital structure decisions from long-term debt. Companies in Africa that implement earnings management have a high level of leverage.

Based on this description, we suspect that earnings management has a close relationship with capital structure decisions. Therefore, we formulate the first hypothesis as follows:

H1 = Earnings management has a positive effect on capital structure decisions, especially from debt.

2.2 The Relationship Between Minority Ownership and Capital Structure

Previous research has shown that minority ownership is closely related to capital structure. Research conducted by [12] found that minority ownership is one of the important factors in increasing company profits. Reference [13] found a close relationship between minority ownership and capital structure. Based on this, we formulate the second hypothesis as follows:

H2 = Minority ownership is influential in determining the capital structure.

2.3 The Role of Minority Ownership with Earnings Management and Capital Structure

Earnings management practice is a practice that can be done by management in optimizing accounting information to stakeholders. The management structure of both directors and commissioners in family companies is mostly filled by families. This is done to secure the interests of the family in the company. We suspect that the interests of the majority of families both in the composition of the board of directors and commissioners, as well as through share ownership, have a very strong dominance in making management decisions, especially corporate capital structure decisions. Meanwhile, [14] found a close relationship between minority ownership and capital structure. Therefore, we formulate the third hypothesis as follows:

H3 = Minority ownership plays a role in influencing the company's earnings management and capital structure.

3 Methods

3.1 Sample

This study uses secondary data obtained through the annual report of family companies listed on the Indonesia Stock Exchange for the period 2010–2020. The sampling method we use is purposive sampling according to the research objectives. Based on this technique, a sample of 90 companies was obtained with a total of 990 observations.

3.2 Research Model

We developed a research model in an effort to answer the research questions we posed as follows:

Model 1:

$$TD_{it} = \alpha_0 + \beta_1 REM_{it} + \beta_2 Min_{it} + \beta_3 REM * Min_{it} + \beta_4 FirmAge_{it} + \beta_5 SIZE_{it} + \epsilon \tag{1}$$

where TD_{it} is the capital structure decision that we proxy through Leverage, REM_{it} is the real earnings management of company *i* in year *t*. Min_{it} is the minority ownership of company i in year t. FirmAge, and Size are control variables.

3.3 Variable Measurement

TD is the company's leverage as a proxy for the company's capital structure decisions that we measure through the comparison between total debt to total equity.

$$TD_{it} = \frac{Liability}{Equity} \tag{2}$$

We measure real earnings management through the model developed by [15] through the abnormal proxy CFO (AbCFO) as follows:

$$\frac{CFO_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{Sales_{it}}{A_{it-1}} + \alpha_3 \frac{\Delta Sales_{it}}{A_{it-1}} + \varepsilon_{it} \tag{3}$$

CFO_{it} is the operating cash flow of company i in year t and A_{it-1} is the total assets of company i in year $_{t-1}$. Salesit is the change in company sales between years $_t$ and $_{t-1}$. We measure minority ownership by the percentage of minority share ownership in family companies. The control variable that we use is FirmAge or company age. We measure the age of the company from the company's inception until the end of the observation year, which is 2020. Previous research used Firm Age as a control variable for family companies. For example, research conducted by [15]. The age of the company reflects the company's reputation in making capital structure decisions. Furthermore, [16] argue that the age of the company plays a very important role in determining capital structure decisions, especially the cost of debt. Then the control variable Size or the size of the company that we measure through the natural logarithm of total assets.

4 Result

Previous research used Firm Age as a control variable for family companies. For example, research conducted by [15]. The age of the company reflects the company's (Table 1).

Based on this distribution, our research sample is dominated by companies belonging to the trading industry as much as 32%, and at least companies belonging to the mining industry as much as 6%. The trading industry is more in demand by family companies because of the lower social and environmental risks and responsibilities compared to the mining industry. Second, after the data was collected, we then carried out a series of Univariate and Multivariate tests. Table 2 represents the univariate test. Univariate test to see how far the data is distributed through the mean, maximum value and standard deviation.

Table 1. Sample Based on Industry

Number	Industry	Number of Companies	Number of Observations	Percentage (%)
1	Consumption	8	88	9
2	Manufacture	13	143	14
3	Trading	29	319	32
4	Mining	3	33	3
5	Agriculture, Plantation	6	66	7
6	Property	15	165	17
7	Other	16	176	18
	Total	90	990	100%

Source: processed data, 2022

Table 2. Univariate and Correlation Tests

	TD	REM	MIN	RENMIN	SIZE	FIRMAGE
Mean	1.575450	−0.005025	0.283003	−0.000748	9.374489	32.24469
Median	0.910000	−0.010000	0.250000	0.000000	9.380000	30.00000
Std. Dev.	6.156682	0.500396	0.175864	0.068878	0.796990	15.97971
Sum Sq. Dev.	37449.88	247.3915	30.55698	4.687246	627.5713	252286.8
Observations	989	989	989	989	989	989
	1					
	0.0052	1				
	0.0220	0.0068	1			
	0.0186	0.8562	−0.0093	1		
	0.0037	0.0234	0.1852	−0.0080	1	
	−0.0037	−0.0192	−0.0533	−0.0523	0.2170	1

Source: processed data, 2022

Based on Table 2, it is known that the average value of TD or capital structure is 1.57. Thus the ratio between capital structure from debt is 1.57 higher than equity funding. The capital structure of family companies is dominated by debt funding. According to [4], capital structure decisions in the form of debt as a mechanism for family companies in protecting family interests from shareholder domination. Furthermore, it is known that the average value of earnings management is −0.005. Based on this, we can conclude that most of the family firms in our sample practice earnings management but with very

Table 3. Multivariate Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.062197	5.639059	0.011030	0.9912
REM	−1.169078	0.797876	−1.465237	0.1432
MIN	−0.761536	2.102177	−0.362261	0.7172
REM*MIN	11.78322	6.031093	1.953745	0.0510*
SIZE	0.209784	0.639519	0.328033	0.7430
FIRMAGE	−0.007285	0.038775	−0.187877	0.8510
Obs	989			
Adjusted R-squared	0.063223			
F-statistic	1.709364			
Prob (F-statistic)	0.000073			

Source: processed data, 2022

low indications. The average minority ownership in family companies is 28%, the rest is owned by controlling shares.

The correlation between capital structure variables and real earnings management is 0.0052, between capital structure and minority ownership is 0.002, between capital structure and minority ownership interaction and real earnings management is 0.018, between capital structure and company size is 0.0037 and between capital structure and company age of −0.0037. The correlation between real earnings management and minority ownership is 0.0068, between real earnings management and real earnings management interaction and minority ownership is 0.85, between real earnings management and firm size is 0.023 and between real earnings management and firm age is −0.092. The correlation between minority ownership and the interaction between real earnings management and minority ownership is −0.0093, the correlation between minority ownership and firm size is 0.18, and the correlation between minority ownership and firm age is −0.05. Based on this description, we can conclude that between the variables in our study there is no correlation between variables.

Multivariate testing to see the extent of the relationship, variation between variables and the role of majority ownership in influencing earnings management and capital structure decisions. The multivariate testing step begins with a series of selections of the right model, namely the fixed effect model with balance panel data. Table 3 represents the results of the Multivariate test.

Based on the data above, the significance of the role of minority ownership is 0.05 with a regression coefficient of 11.78. We can conclude that minority ownership plays a role in influencing earnings management and capital structure. Our research shows that minority ownership as one that is able to influence the company's capital structure decisions. Although in family companies, capital structure decisions and earnings management practices are determined by the majority ownership of the family and the founder as president director, our results prove that the voice of minority ownership can

Table 4. Additional Test

Low level of earnings management			High level of earnings management	
Variable	Coefficient	Prob.	Coefficient	Prob.
C	−0.7960	0.2387	7.322	0.2090
REM	0.29740	0.2714	−7.06	0.1337
MIN	−0.0597	0.6961	−4.45	0.0896*
REM*MIN	−1.684	0.3907	17.23	0.1406
SIZE	0.1481	0.0431	−0.09	0.8811
FIRMAGE	−0.0045	0.3161	−0.01	0.5369
Obs	428		562	

Source: processed data, 2022

be considered in making funding policies. Our research supports the research conducted by [12, 13], however it does not support the research conducted by [7]. Our research answers our third hypothesis.

The governance of family companies in Indonesia has allowed minority ownership to act as an external control mechanism. Even in family firms, our research proves that the presence of minority ownership remains an important part of family management decision making.

4.1 Additional Test

We perform additional testing to see how far the role of minority ownership in companies with high and low earnings management can influence capital structure decisions. The first step we took to perform this additional test was to divide the companies according to their level of earnings management. Then we do the test through regression. Table 4 represents the results of the additional tests.

Based on Table 4, we can conclude that minority ownership plays a more important role in influencing earnings management and capital structure decisions at high earnings management levels. The role of external monitoring is very much needed from minority ownership, especially when family companies make capital structure decisions that have an impact on the interests of minority ownership and the company as a whole. Earnings management carried out by family management with the aim of obtaining funding, either in the form of debt schemes or through the issuance of securities, will have an impact on minority interests.

5 Conclusion

The purpose of this study is to investigate the role of minority ownership in influencing earnings management and financing decisions, identify variations in the relationship between earnings management and financing decisions, minority ownership and financing decisions and explain these relationships through relevant theories.

Based on the results of testing on 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020, we can conclude that minority ownership has a very important role as part of external monitoring, especially in making capital structure decisions. Minority ownership is considered by management in making funding decisions, so that it does not have a negative impact on the interests of minority ownership. In addition, minority ownership can provide management advice or direction in making capital structure decisions.

This research is far from perfect, especially since testing is limited to family companies. Then the earnings management proxy only uses the CFO abnormal proxy. Therefore, further testing may involve other real earnings management proxies such as abnormal production and accrual earnings management.

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