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Woman of Board Directors, Leverage, Sales Growth, Institutional Ownership, and Earnings Management

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ABSTRACT
This study aims to determine the effect of the size of the female board of directors and commissioners, leverage, and sales growth with the moderating variable of institutional ownership on leverage on earnings management in the real estate and construction which listed on the Indonesia Stock Exchange for the 2017-2020 period. Data processing was carried out with Eviews. The sample was selected with purposive sampling method. The results showed that the size of the female board of directors and sales growth significantly negatively affected earnings management. The female board of directors can reduce earnings management because women in leadership positions in businesses are capable of making wise and moral decisions. The higher the sales growth, the lower the earnings management. Companies have a high sales growth rate means that the company's profit is also high. Managers are not motivated to increase profits because their interests of managers are the same as stakeholders' interests. Managers have the same information as stakeholders, so there is no information asymmetry. Leverage has no significant effect on earnings management. Leverage in earnings management has a significant negative impact on moderating institutional ownership.

Keywords**:** *Woman director, Leverage, Sales, Earnings management*

1. INTRODUCTION

Earnings management is carried out as an effort by the company's management to influence financial statement information so that investors are interested in the company [1]. In Indonesia, earnings management is possible because the corporate governance system is still ineffective. The management is driven to manage earnings in a way that results in big profits and bonuses. Investors find it challenging to trust the company because the data they use as a guide for investment does not accurately reflect actual results. Based on research on the earnings management phenomenon that happened in Indonesia in 2017, earnings management leverages the concept of discretionary accruals [2]. The estate firm PT Hanson International, which handles earnings from the sale of plots by raising the company's income, has a financial statement violation. Businesses must adhere to accounting rules while preparing financial statements. Female company leaders can control earnings management indications [3],[4]. Previous research on leverage on earnings management has found that leverage has a significant positive effect on earnings management in Kazakhstan for the 2010-2016 period [3]. In addition, there is sales growth with a significant positive effect on earnings management in Mexico with a 10-year research period [5].

Research from Adamu et al [6] on board size, board meeting frequency, board expertise, and female board directors with control variables such as growth, profitability, leverage, and firm age on earnings management in Nigerian Stock Exchange financial companies for the study period. 2011-2016. The research shows that board size, growth, and profitability have no significant effect on earnings management, while board meeting frequency, board expertise, and firm age have a significant positive effect on earnings management. Leverage has no negative significant effect on the dependent variable. However, female board directors have a significant negative effect on earnings management.

The other study determined financial statements, board management, chair of management, auditor size, financial performance, firm size, leverage, and stock issuance on earnings management. Research conducted by Dang et al., [7] in companies listed on the Vietnam Stock Exchange other than banks and insurance in 2012-2016 resulted in financial statements, chair of management, financial performance, firm size, and stock issuance having a significant positive effect on earnings management. However, board management, auditor size, and leverage have a significant negative effect on earnings management.

This study intends to empirically investigate the role of institutional ownership, sales growth, and the presence of female board members in moderating the impact of leverage on profits management. In order to prevent decision-making errors that result in financial statements that do not accurately reflect actual conditions, the company will profit from this research by being able to pick the criteria for managers who are deserving of managing the company. Shareholders make better investment decisions for investors. For creditors, in order to take into account financing businesses. want scientists to be able to expand their body of information regarding money management.

2. LITERATURE REVIEW

2.1. Agency Theory

Jensen & Meckling proposed the agency theory about the interaction between shareholders and managers in 1976. The underlying premise is that a manager's self-interest may have an impact on their choices and actions. Since management has access to more accurate information than the principle, it is conceivable for management to engage in activities that will manage earnings [8].

2.2. Signalling Theory

According to signal theory, the corporation will send out a signal in the shape of good news from the expression of financial statements. The information is designed for the recipient, who then comprehends this notion and provides the company with greater knowledge of how to transmit information to potential investors in order to raise the share price of the company [9].

2.3. Asymmetric Information

Information asymmetry theory has similarities with agency theory, which means that there are differences in information views between managers and investors. Types of information asymmetry include: a) Adverse Selection. Managers are more knowledgeable about company growth than investors: b) Moral Hazard. Managers carry out activities that are unknown to investors and creditors [10].

2.4. Earnings Management

Earnings management according to Orazalin [3] is an accounting activity that has the aim of achieving the desired level of reported accounting profit. Managers have the freedom and choose to use accounting standards, so there is an interest in doing earnings management by ignoring the interests of investors [11]. According to Schipper [12], earnings management is an intervention that has a purpose such as the financial reporting process so that there is personal profit, so that the company's operational activities become more stable. Manipulation of the company's revenue amount through contracts depending on the figures using the Modified Jones Model.

2.5. Woman of Board Directors

As representatives for the management of the firm, which is made up of the board of directors, board of commissioners, audit committee, and directors, board members are executives who are appointed by shareholders. All of the board's directors make up the board of directors. The commissioners, as a single board, are all members in the meantime. The effectiveness of the board is significantly improved by having more female directors and commissioners. The reason is that having women on a board is thought to make a company more ethical and engaged, which can enhance the quality of its information [13].

2.6. Leverage

Leverage is the solvency ratio and as an illustration of how much the company's operational activities need to be financed with debt. According to Dang et al [7], the higher the leverage value, the greater the investor's risk and the greater the profit desired by the investor.

2.7. Sales Growth

Sales growth indicates a company's capacity to hold onto its financial standing while the economy and its industry grow. A manager's mindset regarding thinking in terms of maximizing profits can be formed through increased sales growth, which can give an overview of earnings that can increase [14].

2.8. Institutional Ownership

Institutional ownership is the number of institutional and institutional shares originating from outside the company. According to Boutseka [15], institutional ownership cannot directly monitor management decisions, but can through investors to monitor so that managers' decisions are appropriate [16].

3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

3.1. The Effect of Woman of Board Directors on Earnings Management

The Board of Directors is the body that oversees all business activities, as well as operations that adhere to excellent organizational management practices and good governance principles. Women in leadership positions in businesses are capable of making wise and moral decisions [4]. Companies led by women have a calm nature and are able to work well under pressure, so the company is more peaceful [17].

3.2. The Effect of Leverage on Earnings Management

Leverage is a measure used to quantify debt-financed businesses. Debt includes long-term leverage, so using leverage carries a considerable amount of risk. Companies with significant levels of leverage will control their earnings by managing higher profits to appear healthy and appealing to investors and avoid the possibility of insolvency [18].

3.3. The Effect of Sales Growth on Earnings Management

Sales growth affects earnings management because changes in sales levels are used to measure company performance [19]. Growth in sales is one way to gauge the volume of sales each year, and it's a crucial aspect of the business. High sales growth presents prospects for businesses to enhance their own worth in the hope that investors would increase their investment in the business. By influencing the increase in net income so that the net income disclosed in the financial statements is appealing to investors, this may result in earnings management methods [18].

3.4. The Effect of Leverage on Earnings Management with Moderated by Institutional Ownership

Institutional ownership will have the ability for good company monitoring. According to Angelina and Atiningsih [16], as a moderating variable, institutional ownership contributes to the relationship between leverage and earnings management. Companies with high leverage have an obligation to meet the information needs of owners, shareholders, and creditors.

The research model of this study is presented in Figure 1:

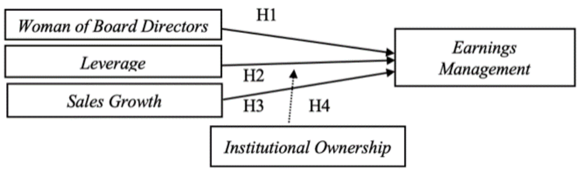

Figure 1. The Research Model

4. RESEARCH METHOD

This study uses research subjects from real estate and construction companies listed on the Indonesia Stock Exchange for the 2017-2020 period. The entire sample obtained 30 companies with a total of 120 data observations. This study uses purposive sampling with the fulfilment of several criteria, including: a) real estate and construction companies with audited financial statements as of the end of December 31; b) real estate and construction companies that have profits on the Indonesia Stock Exchange; c) real estate and construction companies that have institutional ownership. The following is the operationalization of each research variable:

a. Earnings Management (Y)

$$TACt = NIt - CFOt$$
$$\frac{TACt}{At-1} = \beta 1\left(\frac{1}{At-1}\right) + \frac{\beta 2\,(\Delta REVt - \Delta ARt)}{At-1} + \beta 3\left(\frac{PPEt}{At-1}\right) + \varepsilon$$
$$NDAt = \beta 1\left(\frac{1}{At-1}\right) + \beta 2\left(\frac{\Delta REVt - \Delta ARt}{At-1}\right) + \beta 3\left(\frac{PPEt}{At-1}\right)$$
$$DAt = \frac{TACt}{At-1} - NDAt$$

b. Woman of Board Directors (X1)

$$WBOD = \Sigma\ Woman\ on\ Board\ and\ Commissioner\ Size$$

c. Leverage (X2)

$$LEV = \frac{Total\ Liabilities}{Total\ Assets}$$

d. Sales Growth (X3)

$$SG = \frac{Revenue\ t - Revenue\ (t-1)}{Revenue\ (t-1)}$$

e. Institutional Ownership (M)

$$IO = \frac{Total\ kepemilikan\ saham\ institusi}{Total\ saham\ beredar}$$

The following below is the moderating regression equation to be used:

$$EM = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4M + \beta 5X2M + \varepsilon$$

Note:
EM = Earnings Management; α = Constant; $\beta_{1\text{-}5}$ = Regression Coefficient; X1 = Woman of Board Directors; X2 = Leverage; X3 = Sales Growth; M = Institutional Ownership; ε = Error Term.

The research method used in this study is a combination of time series and cross-sectional data known as panel data (pooled data). There are three alternative models can be used to analyze the panel data: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Several tests are needed to select the most appropriate model: Chow Test, Hausman Test, and Lagrange Multiplier (L-M). According to the results, this research chose the Fixed Effect Model for data analysis.

5. RESULTS

Table 1. Descriptive Statistics Test Results

	Y	X1	X2	X3	M
Mean	-0.039736	2.216667	0.444278	0.117320	0.616566
Median	-0.016306	2.000000	0.467211	0.003695	0.655843
Maximum	0.455048	7.000000	1.106351	8.088210	0.999260
Minimum	-0.373756	1.000000	0.041537	-0.773813	0.000328
Std. Dev	0.104403	1.496120	0.198292	0.873353	0.243828

The dependent variable for the descriptive statistical test shown in Table 2 is earnings management (Y), with a mean value of -0.039736. The median result for descriptive statistics is -0.016306 after computation. The highest number is 0.455048. The minimal value for this study is -0.373756. While the earnings management variable (Y) standard deviation value is 0.104403, The mean value of the independent variable (X1) from female board directors is 2.216667. The obtained median value is 2,000,000. The maximum score for this study was 7,000,000. While the smallest figure obtained was one million. 1.496120 is the standard deviation. Mean and median values for the leverage variable (X2) are 0.444278 and 0.467211 respectively. The maximum and minimum values for this study are 1.106351 and 0.041537 respectively. Leverage yields the standard deviation of 0.198292. Growth in sales (X3), with a mean of 0.117320. The largest value received was 8.088210, with the median value being 0.003695. The minimal value for this study is -0.773813. The growth in sales' standard deviation is 0.873353. Institutional ownership (M), a moderating variable in this study, has a mean value of 0.616566. The obtained median value is 0.655843. The obtained minimum value is 0.000328, while the maximum value is 0.999260. The standard deviation is 0.243828.

The traditional assumption tests implemented are the multicollinearity test and the heteroskedasticity because panel data is being used. The results of the multicollinearity test indicate that all of the variables have correlation coefficient values of less than 0.80, indicating that there is no multicollinearity in this study and that regression testing may be performed on it. Heteroskedasticity test result after moderating effect is 0.7662. In this test, it can be concluded that there is no problem of heteroskedasticity.

The results of the Chow Test show that the Fixed Effect Model should be used because the probability value of the Chi-square cross-section following the moderating effect is 0.0000. The Hausman Test shows that the Fixed Effect Model should be used since the random cross-section has a probability value of 0.0000 after the moderating effect. These are the outcomes of moderating regression using a Fixed Effect Model, as shown in Table 2 as follow:

Table 2. The Results of Moderating Regression with Fixed Effect Model

Variable	Coefficient	Sig. Value	Results
Constants	-0.245909	0.0484	
X1	-0.039911	0.0128	H1 is accepted
X2	0.381876	0.0768	H2 is not accepted
X3	-0.046946	0.0000	H3 is not accepted
M	0.632940	0.0016	
X2M	-1.037869	0.0083	H4 is not accepted

The form of the moderating regression equation is as follows:

$$EM = -0.245909 - 0.039911\ X1 + 0.381876\ X2 - 0.046946\ X3 + 0.632940\ M - 1.037869\ X2\ M + \varepsilon$$

The F-test results reveal that the probability value of F-statistic is 0.000000, indicating that all independent variables regarded as independent variables also the moderating variable on leverage simultaneously affect the dependent variable significantly. According to the multiple determinant coefficient test, the adjusted R-squared value is 0.628695, indicating that all independent variables in this research have an effect toward dependent variable by 62.87%. Meanwhile, the remaining 37.13% is explained by variables that are not examined in this study.

The T-test shows that the effects of women on boards of directors (X1) has a probability value of 0.0128 and a coefficient of -0.039911, indicating a significant negative impact on earnings management and supporting H1. Leverage (X2) has a prob-value of 0.0768 and a coefficient of 0.381876, indicating that it does not have a statistically significant impact on earnings management but does have a positive impact. H2 is therefore not approved. Sales Growth (X3) displays a probability value of 0.0000 and a coefficient of -0.046946, indicating a strong adverse impact on profits management that involve the rejection of H3. H4 is rejected because there is a strong negative influence on earnings management and the moderating variable of Institutional Ownership (X3) on Leverage gives a coefficient value of -1.037869 and a test probability value of $0.0083 < 0.05$.

6. DISCUSSIONS

Based on the findings obtained and generated from this study, authors concluded several discussions. Woman of board directors has a significant negative effect on earnings management which same with the other research from Adamu; Jusup and Sambuaga [6], [20]. On the other side, this research has a different results from Razak and Helmy [4] in which woman of board directors did not have a significant impact on earnings management. This study demonstrates that female board directors have low earnings management practices or can reduce earnings management actions, which is consistent with agency theory.

This study results that leverage does not have a significant effect on earnings management according to research by Anindya and Yuyetta; Yunietha and Palupi; Zuhair and Nurdiniah [14], [21], [22]. However, this study is not in line with Dang; Dewi and Wirawati; Wirianata [1], [7], [18] because it produces a significant negative effect. According to agency theory, high leverage results in high agency costs. However, the study's findings demonstrate that using leverage to finance a company's assets does not have a significant and positive impact on earnings management. Because of this, managers are less likely to use earnings management because the study's level of leverage is still safe and capable of covering debts.

Sales growth produces a significant negative effect and is in line with research from Destiana; Firnanti; Khanh and Thu [19], [23], [24]. However, contrary to the results of research from Tran and Dang [7] because it does not have a significant effect. According to agency theory, there are principles and agents who make separate decisions, which is contrary to this study. The conclusion of this study, however, is that the hypothesis is not supported since real estate and construction companies in Indonesia are experiencing sales growth, which may lower managers' motivation to control earnings. Sales increase will lessen the prevalence of managers' earnings management techniques. Managers no longer need to manipulate profitability if there is an increase in sales growth.

This study shows that leverage has a significant negative result with moderating institutional ownership on earnings management which is in line with research by Saraswati and Atiningsih [25]. However, the results differ from the research by Angelina and Atiningsih [16] which stated that the effect was significantly positive. In order to explain the issue of agents who exist due of conflicts of interest between managers and shareholders, this paper refers to agency theory. In order to avoid breaching debt covenants, management typically manages earnings. However, this study demonstrates that excessive leverage will induce institutional ownership to increase management oversight, which will result in fewer actions being taken for earnings management because of the increased management oversight and manager rethinking their approach to managing earnings. The manager is less motivated to control earnings if institutional ownership involvement is low.

7. CONCLUSIONS

Several conclusions could be taken from this study's data processing and testing results. First, H1 is accepted since the presence of women on the board of directors has a strong detrimental impact on earnings management. Second, H2 is rejected since leverage has a minor impact on managing earnings. Third, H3 is rejected because sales growth has a major negative impact on managing earnings. Last but not least, H4 is rejected because leverage significantly worsens earnings management when institutional ownership is a moderating element.

Due to time and resource constraints, there are still certain limitations with this research. The research term, which runs from 2017 to 2020, is only 4 years long. Construction real estate companies make up the sole segment of the research sample population. Additionally, a lot of businesses suffered losses in 2020, which resulted in a small number of samples for this study.

The following recommendations are based on the findings of this study and the limitations already mentioned: (i) For businesses, the research is anticipated to take into account the standards for managers in order to reduce earnings management actions; (ii) For investors, the research is anticipated to take into account the criteria for investors to decide whether to invest by looking at the company's financial statements whether there will be a possibility of doing earnings management; (iii) For creditors, it is prudent to lend money to businesses; and (iv) For literature studies, the research can provide knowledge about earnings management. Another idea is to extend the research population to include producers of raw materials or manufacturing industries, with a research duration of 5 to 10 years.

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