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Effect of Firm Size and Leverage on Earning Management

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Abstract *— Financial reports provide all the information needed for stakeholders, especially investors, and what investors pay attention to is profit as a proxy for management performance and performance. The more professional the company management is, the more investors' perception is that the more profit is generated. Investors rarely analyze the issuer's condition more fundamentally. Because profit is often the center of attention of investors, thus encouraging management to do things that are not appropriate, namely making the entity look good financially or known as Earnings Management. This study aims to analyze the effect of firm size and leverage on earnings management. The samples of this study were companies in the food and beverage sub-sector on the Indonesia Stock Exchange that published their financial reports in 2014-2018. Data were analyzed using the multiple regression method with the SPSS 23.00 analysis tool. The results showed that firm size and leverage had no significant effect on earnings management.*

Keywords *— Firm size, Leverage, Earnings Management.*

I. INTRODUCTION

Financial reports provide all the information needed for stakeholders, especially investors, and what investors pay attention to is profit as a proxy for management performance and performance. The more professional the company management is, the more investors' perception is that the more profit is generated. Investors rarely analyze the issuer's condition more fundamentally. Because profit is often the center of attention of investors, thus encouraging management to do things that are not appropriate, namely making the entity look good financially or known as Earnings Management.

According to Sulistyawan, et al (2011) by adapting Scott's opinion, one of the management actions for earnings that can be taken is income smoothing, income smoothing shows an effort by company management to reduce abnormal variations in earnings within the limits permitted in practice. fair accounting and management principles. If the resulting profit is unstable or continues to fluctuate, then the manager's performance will be questioned and will be bad for the good name of the company. Therefore, managers can do income smoothing.

According to Sulistyawan, et al. (2011) income smoothing is carried out by means of financial engineering which legally and accounting can be justified by taking advantage of weaknesses in accounting standards or applicable rules. what arises in relation to profit is income smoothing (income smoothing). According to Kustono (2009), income smoothing is a profit engineering technique with the aim of presenting a stable profit cash flow action figure. More specifically, management takes income smoothing action with the aim of reducing the fluctuation of earnings (earnings uncertainty) in the company. The existence of earnings fluctuations in the company indicates that the company's performance is poor, which causes the company's profits to be unstable from time to time. The instability of profits in the company will make investors reluctant to invest in the company, so that management is forced to take profit actions to attract investors.

The factor affecting earnings management in the form of income smoothing is the size of the company. Research Halim, et al. (2005) using market capitalization as a firm size and the Modified Jones Model as a measure of earnings management concluded that firm size has a significant positive effect on earnings management practices. Large companies have more complex operational activities and are also more required to meet higher investor expectations, so that the larger the size of the company, the more likely it is to carry out Earnings Management, in other words large companies have a sufficiently large incentive to perform Earnings Management, because one the main reason is that large companies must be able to meet the expectations of their investors or shareholders.

Moses in Gunawan et al (2015) suggests that larger companies have a greater incentive to do income smoothing (a form of earnings management) compared to small companies, because they have greater political costs. Political costs arise because the company's high profitability can attract the attention of the media and consumers. Albretch and Richardson in Gunawan et al (2015) suggest that larger companies have an incentive to

do income smoothing compared to smaller companies because larger companies are researched and viewed more critically by investors.

Another factor that can influence Earnings Management practice is Leverage. Leverage describes the company's ability with its own capital to guarantee its debt and shows the proportion of company spending that is financed by shareholders (own capital) and the cost of borrowing. Agency theory by Jensen and Meckling (1976) states that a company with a high proportion of debt in its capital structure will have a greater monitoring cost. This monitoring cost arises because of the owner's interest in the company to oversee management's actions in managing the funds and facilities provided by the owner to run the company. Therefore, companies that have high leverage have more obligations to meet the needs of adequate information for owners, shareholders and creditors. Budileksman and Andriani (2005) explain that in an agency relationship, managers have information asymmetry towards external parties of the company, such as creditors and investors, where managers have relatively more internal company information and know this information faster than external parties, so that management as agents who know more information, make use of information that is not known to the principal to maximize his interests. Therefore, managers can manipulate this information in order to maximize its interests.

Gunawan et al (2015) stated that the greater the debt of a company compared to its assets, the greater the risk faced by the company to pay its obligations. The greater the Leverage ratio, the greater the level of dependence of the company on external parties (creditors) and the greater the burden of debt costs (interest costs) that must be paid by the company. With the increase in the Leverage ratio (where the debt burden is also getting bigger), this will have an impact on the profitability of the company, because part of it is used to pay loan interest. Furthermore, Gunawan et al stated that if a company is in danger of being liquidated, the action that management can take immediately is Earnings Management. By implementing Earnings Management, the company's performance will look good in the eyes of shareholders and the public even though the company is in a state of being threatened with liquidation.

Research by Jao and Pagalung (2011) concluded that the higher the leverage value, the more a company uses debt to finance company assets rather than shareholder equity. The bigger the company's debt, the greater the risk faced by investors, so that investors will ask for a higher level of profit. Therefore, companies with a high level of leverage tend to perform income smoothing actions.

Based on the background, the problems in this study are as follows.

1. Does firm size affect earnings management?
2. Does Leverage affect Earnings Management?
3. Does firm size and leverage simultaneously affect earnings management?

The framework in this study is presented in the following figure:

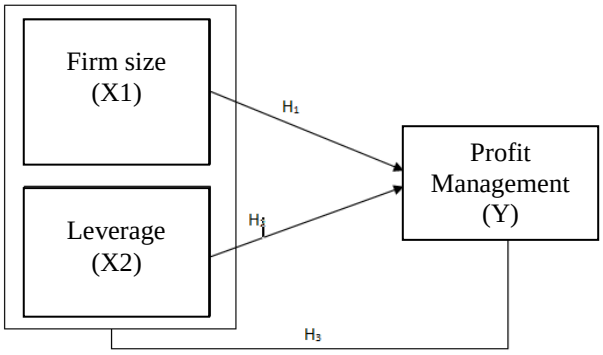

Fig 1: Framework

Hypothesis:

The hypothesis in this study is stated as follows:

H1: There is an effect of firm size on earnings management

H2: There is an effect of Leverage on Earnings Management

H3: There is an effect of firm size and leverage simultaneously on earnings management.

II. METHOD

A. Research Object

The objects in this study are the size of the company, leverage and earnings management in the Food and Beverage Sub-sector issuers listed on the Indonesia Stock Exchange for the period 2014-2018, data is obtained through the website www.idx.co.id

B. Variable Operationalization

1. Firm size

Firm size is an increase from the fact that large companies will have large market capitalization, large book values and high profits. Meanwhile, a small company will have a small market capitalization, small book value and low profit. (Suharli, 2006) Firm size can be seen from the total assets owned by the company. In this study, firm size was assessed using the natural logarithm of total assets (Dewi and Wirajaya, 2013). Firm size has a different effect on the firm value of a company. In terms of firm size, it is seen from the total assets owned by the company, which can be used for company operations.

2. Leverage

Leverage is a level of the company's ability to use assets and / or funds that have fixed expenses (debt and / or special shares) in order to realize the company's goal of maximizing the company's owner's wealth. According to Sawir (2005) debt ratio is a ratio that shows the proportion between liabilities owned and all assets owned. If the debt ratio is higher, while the proportion of total assets does not change, the debt owned by the company will get bigger.

3. Earnings Management

The proxies for earnings management in this study are income smoothing, income smoothing is one of the earning engineering techniques with the aim of presenting a stable profit flow figure (Fatmawati & Djajanti, 2015). To find out whether a company is doing income smoothing or not, it can be measured using the Eckel Index. This Eckel index can be obtained by comparing the coefficient of variation from changes in earnings in one period with the coefficient of variation in sales companies in one period which can be formulated as follows (Djajanti, 2015).

$$Indeks\ Eckel = \frac{CV\Delta I}{CV\Delta S}$$

Information:

CV: The coefficient of variable variation, which is the standard deviation divided by the expected value

ΔI: Change in profit over a period

ΔS: Change in sales within one period

Meanwhile, the CVΔI and CVΔS values can be calculated by the following formula.

$$CV\Delta I \ / \ CV\Delta S = \sqrt{\frac{\sum(\Delta x - \overline{\Delta x})^2}{n-1}} : \overline{\Delta x}$$

Information :

Δx = Change in profit (I) or sales (S) between year n and n - 1

$\overline{\Delta x}$ = The average change in profit (I) or sales (S) between years n and n - 1

n = Number of years observed

If CVΔI <CVΔS, then the company is classified as a company that performs income smoothing actions. Conversely, if CVΔI> CVΔS, then the company is not classified as a company that carries out income smoothing actions.

C. Population and Research Sample

The population of this study were issuers of the Food and Beverage Sub-Sector listed on the Indonesia Stock Exchange for the period 2014-2018. Furthermore, in taking the sample, the researcher used the sampling technique used in this study was purposive sampling. Purposive sampling is a sampling technique with certain considerations or criteria (Sujarweni, 2016). With this technique, research can use a sample of financial statements for the period 2014 - 2018 because the financial statements in that year are the latest financial reports that will make the results of research analysis better. From the existing population, a number of samples will be taken to be used in research with the following criteria.

1. Companies that have consistently issued financial reports on the IDX from 2014 to 2018
2. Companies that carry out income smoothing practices during the study period
3. Companies that do not use foreign currencies in presenting financial statements

Based on the criteria obtained a sample of 9 companies that meet the criteria with a research period of 5 years. The following is a list of the names of the companies in the research sample.

TABLE I
COMPANY RESEARCH SAMPLE

No.	Emiten Code	Company Name
1.	ULTJ	PT. Ultrajaya Milk Industry and Tranding Company Tbk
2.	ROTI	PT. Nippon Indosari Corporindo Tbk
3.	MYOR	PT. Mayora Indah Tbk
4.	INDF	PT. Indofood CBP Sukses Makmur Tbk
5.	DLTA	PT. Della Djakarta Tbk
6.	CEKA	PT. Wilmar Cahaya Indonsia Tbk
7	ALTO	PT. Tri Banyan Tbk
8.	SKLT	PT. Sekar Laut Tbk
9.	STTP	PT. Siantar Top Tbk

Source: Data from Bursa Efek Indonesia (BEI), 2020

D. Data Analysis Techniques

Data analysis in this study, namely descriptive statistics, classical assumption test, and multiple regression test. Descriptive statistics provide an overview or descriptive of data seen from the average (mean), standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness (slope distribution) (Ghozali, 2013). According to Sujarweni (2016), descriptive statistics are more related to the collection and summarization of data, as well as the presentation of the summary results. Statistical data that can be obtained from the results of censuses, surveys or other observations are generally still raw, random, and not well organized. The classical assumption test is a stage that must be done before testing the hypothesis. This needs to be done to determine the possibility of multicollinearity, heteroscedasticity and autocorrelation. If this assumption is violated, the hypothesis test becomes biased. The research data will be analyzed with multiple linear regression analysis, with the following formula:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+e$$

Information:
Y = Earnings Management
α = Constant
β1, β2 = The regression coefficient of each independent variable
X1 = Firm size
X2 = Leverage
e = Standard error

III. RESULT AND DISCUSSION

A. Descriptive Statistics

TABLE II
DESCRIPTIVE STATISTICS

		Company_Size	Leverage	Profit_Management
N	Valid	45	45	45
	Missing	0	0	0
Mean		28,7846	59,4094	156,3066
Median		28,3930	,9700	,6500
Mode		27,74	,16[a]	-553,13[a]
Std. Deviation		1,49702	65,44370	317,19175
Minimum		26,54	,16	-553,13
Maximum		32,20	186,69	867,92

a. Multiple modes exist. The smallest value is shown

Based on the results of data processing in Table 2, the average value of the Firm size variable is 28.78, where the minimum is 26.54 and the maximum is 32.20. The average value of the leverage variable is 59.40, where the

minimum is 0.16 and the maximum is 186.69. The average value of the Earnings Management variable is 156.3066 where the minimum is -553.13 and the maximum is 867.92.

B. Classic Assumption Test

1. Normality Test

The data normality test aims to test whether the regression model has a normal distribution. Data normalization test results using the One-Sample Kolmogorov-Smirnov Test below:

TABLE III
NORMALITY TEST
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	313,03502112
Most Extreme Differences	Absolute	,140
	Positive	,140
	Negative	-,139
Test Statistic		,140
Asymp. Sig. (2-tailed)		,067[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

In the table above, it can be seen that the residual value tested by Kolmogorov-Smirnov, the Asymp value. Sig. (2-tailed) is 0.067 more than 0.05 (0.067> 0.05), in other words that the data distribution of all research variables is normal, so the research can be continued. In addition, the normality test can use a histogram.

2. Linearity Test

The linearity test is used to see whether the model built has a linear relationship or not which can be seen from the line plot between variables (Normal P-P). The following are the results of the line plot in this research model using SPSS version 23.00.

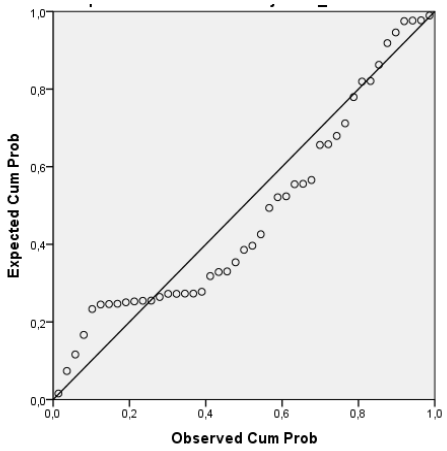

Fig 2: Line Plot Between Variables (Normal P-P)

Figure 2 is a diagram depicting the plot between the residual value (ZRESID) and the predicted value (ZPRED) in the second (multiple) regression line, with which it can be seen the linearity of a multiple regression model, in this study, the model is linear because the residual value follows the residual flow. Normal as in Figure 2.

3. Multicollinearity Test

TABLE IV

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MULTICOLLINEARITY TEST RESULTS

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Ukuran_Perusahaan	,988	1,012
	Leverage	,988	1,012

From the table above, it can be seen that all independent variables have a VIF value less than 10 (1.012 <10), and a tolerance value greater than 0.1 (0.988> 0.100) so that it can be concluded that there is no deviation from the classic multicollinearity assumption between independent variables. in the model.

4. Heteroscedasticity Test

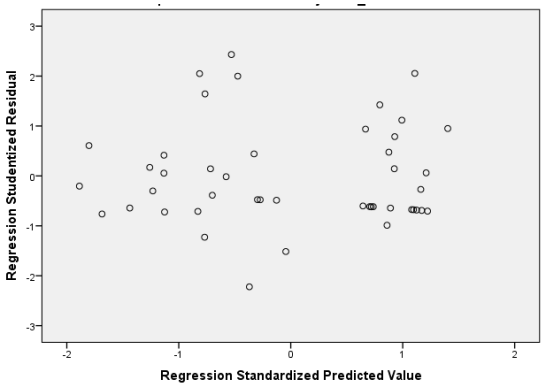

Fig 3: Heteroscedasticity Test Results

Based on Figure 3, it can be seen that by plotting the ZPRED value (predictive value) with ZRESID (its residual value). The model obtained does not have a certain pattern on the graph, so the model is free from heteroscedasticity problems.

5. Autocorrelation Test

TABLE V
AUTOCORRELATION TEST RESULTS
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,161[a]	,026	-,020	320,40156	2,116

a. Predictors: (Constant), Leverage, Company_Size
b. Dependent Variable: Profit_Management

From the results of data testing, the study has a value of DW = 2.116, which is at a value of about 2, so that the data is free from autocorrelation problems.

E. Multiple Linear Regression

TABLE VI
MULTIPLE LINEAR REGRESSION TEST RESULTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	695,309	941,574		,738	,464
	Ukuran_Perusahaan	-17,239	32,464	-,081	-,531	,598
	Leverage	-,720	,743	-,149	-,970	,338

TABLE VII
F TEST
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	115266,080	2	57633,040	,561	,575[b]
	Residual	4311600,676	42	102657,159		
	Total	4426866,756	44			

a. Dependent Variable: Profit_Management
b. Predictors: (Constant), Leverage, Company_Size

Based on Table 6, the regression model can be interpreted as follows:
1. The Effect of Firm Size on Earnings Management

The coefficient b1 is -17,239 units, meaning that if the size of the company has increased by one unit, while other variables are constant, then the Profit Management variable will decrease by 17,239 units, but by looking at the sig value of 0.598 is greater than 0.05 (0.598> 0, 05), which means that the influence of firm size is not significant to Earning Management.

This study is in line with the research of Agustia and Suryani (2018), Gunawan., Et al (2015) which concluded that firm size has no significant effect on earnings management. Agustia and Suryani (2018) state that close supervision from the government, analysts, and investors is the key to not earning management, where managers' fear makes earnings management not carried out. Fear of the possibility of being caught committing fraudulent practices will have an impact on destroying the credibility of the company manager.

2. Effect of Leverage on Earnings Management

The b2 coefficient of -0.720 means that if the leverage has increased by one unit, while other variables are constant, then the Profit Management variable will decrease by 0.720, but by looking at the sig value of 0.338 is greater than 0.05 (0.338> 0.05), it means that the effect of leverage is not significant on earnings management.

The results of this study are in accordance with the research of Dimarcia and Krisnadewi (2016) which states that leverage has no significant effect on earnings management. In this study, the average company has safe leverage, so that the company is able to pay debts used to finance company assets, so managers are not interested or motivated to practice earnings management. The company does not need actions that will help the company in certain situations. The company is in a good or safe condition and is able to pay debts that are used to finance company assets (Elfira in Dimarcia and Krisnadewi, 2016)

3. Simultaneous influence of firm size and leverage on earnings management

Based on Table 7, the sig value of 0.575 is greater than 0.05 (0.757> 0.05), meaning that the simultaneous influence of Firm size and Leverage is not significant on Earning Management. In accordance with the hypothesis on the partial test, the insignificance of firm size and leverage in influencing earnings management can be caused by the close supervision of the government, analysts and investors which is the key to the absence of earnings management, where the manager's fear of making earnings management is not carried out, then In this study, the average company has safe leverage, the company is able to pay debts used to finance the company's assets, so managers are not interested or motivated to practice earnings management.

VI. CONCLUSIONS

The effect of firm size is insignificant on earnings management because the tight supervision from the government, analysts and investors is the key to the absence of earnings management, where the manager's fear of making earnings management is not carried out. Fear of the possibility of being caught committing fraudulent practices will have an impact on destroying the credibility of the company manager.

The effect of firm size is not significant on earnings management. Labam is a strategy for all companies in Indonesia, so tax avoidance measures can be taken by all companies regardless of the size or size of their assets. . In this study, the average company has safe leverage in the sense that the company is able to pay debts used to finance company assets, so managers are not interested or motivated to practice earnings management. The company does not need actions that will help the company in certain situations. The company is in a good or safe condition and is able to pay debts that are used to finance company assets

The effect of firm size and leverage is not significant simultaneously on earnings management. In accordance with the hypothesis on the partial test, the insignificance of firm size and leverage in influencing earnings management can be caused by tight supervision from the government and in this study, the average company has safe leverage, so that it is not motivated to do earnings management.

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