

# An Analysis of the Effect of Profitability, Company Size, Institutional Ownership and Leverage on Earnings Management With Financial Difficulties as a Moderating Variable

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## ABSTRACT

The aim of this study was to analyze the effect of profitability, company size, institutional ownership and leverage on earnings management with financial difficulties as a moderating variable. This study was a descriptive quantitative study using secondary data. The populations in the study were manufacturing companies listed on the Indonesia Stock Exchange in 2014-2016, totaling 144 companies. Sample selection was done by proportional random sampling method and obtained a sample of 315 companies, resulting 315 sample companies. The analysis technique used to test the hypothesis was multiple regression analysis with SPSS application tools. Based on the results of testing simultaneously, the independent variables, company size, institutional ownership and leverage had a significant influence on earnings management in the manufacturing companies listed on the Stock Exchange in 2014-2016. Partially, the variable profitability, company size and institutional ownership had a significant positive effect on earnings management, while the leverage variable had a significant negative effect on earnings management. Financial difficulties were not variables that can moderate the relationship between profitability, company size, institutional ownership and leverage with earnings management.

**Keywords:** *Earnings Management, Profitability, Company Size, Institutional Ownership, Leverage*

## INTRODUCTION

Financial statements are a summary of a process of accounting records, a summary of financial transactions that occur during the financial year concerned. Financial statements contain financial information in a certain period that can explain the financial performance of a company. The financial statements are made by management with the aim to account for the tasks assigned to him by the owners of the company.

Earnings management is a way of presenting earnings that aims to maximize management utility and or increase market

value through the selection of a set of accounting procedures by management (Scott, 2006). Earnings management actions have raised several accounting reporting scandal cases that are widely known, including Enron, Merck, World Com and the majority of other companies in the United States (Cornett & Saunders, 2006). Several cases regarding earnings management occurred in several large companies, namely the case of Toshiba, PT Agis, Listed Company (AGIS), PT Inovisi Infracom (INVS), and Bakrie Group companies.

Another factor that can affect earnings management is profitability. Profitability is the company's ability to generate profits. Profit can be a measure of company performance, in which when a company has high profits, it can be concluded that the company's performance is good and vice versa. Firm size as a proxy for political costs, is considered very sensitive to earnings reporting behavior (Watt & Zimmerman, 1978).

Moh'd *et al.* (1998) in Pratana and Mas'ud (2003) stated that institutional investors are those who can monitor agents with large ownership, so that the motivation of managers to manage earnings is reduced. Widyastuti (2007) in his research stated that institutional ownership negatively affected earnings management. This means that the higher the institutional ownership, the more careful managers make profit management.

Companies that have a high leverage ratio due to the large amount of debt compared to assets owned by the company are suspected of earning management because the company is threatened with default, i.e. it cannot fulfill its debt repayment obligations on time.

Habib *et al.* (2013) stated that managers from companies experiencing financial difficulties (financial distress) more practice earnings management by reducing reported earnings, managers practice earnings management with the aim of hiding illegal transactions, indirectly managers try to maintain a reputation companies by showing that their company has a good reputation in the market.

In connection with the phenomena that have been mentioned and several previous studies that are inconsistent, this study aims to determine the effect of profitability, company size, institutional ownership and leverage on earnings management with financial difficulties as moderating variables.

## LITERATURE REVIEW

Jensen and Meckling (1976) stated that agency relations is a contract between

management (agent) and investors (principal). Agency theory is the separation between the principal and the agent which causes the emergence of potential conflicts that can affect the quality of reported earnings. Signal theory explains how the signal of success or failure of the management (agent) should be conveyed to the owner (principal). The signal theory explains that signaling is done by management to reduce asymmetric information. Earnings management is the ability to manipulate available choices and make the right choices to achieve the desired level of profit (Belkaoui, 2004). The behavior of earnings management can be explained through Positive Accounting Theory (PAT).

Profitability is the company's ability to generate profits. Profitability is an indicator of management's performance in managing corporate wealth as indicated by profits generated by the company. One that is part of profitability is the Return on Asset (ROA) ratio. ROA is a ratio that is used to measure a company's ability to obtain profit that originates from investment activities (Mardiyanto, 2009). Company size shows the amount of experience and ability to grow a company that indicates the ability and level of risk in managing investments provided by stockholders to increase their prosperity.

According to Joubert (2012) the concentration of institutional ownership is the company's shares owned by institutions or institutions such as insurance companies, banks, investment companies and ownership of other institutions. Large institutional ownership demonstrates its ability to monitor management. The leverage ratio shows the risks faced by the company, the greater the risks faced by the company, the uncertainty to generate future profits will also increase and also to predict the benefits that might be obtained for investors if they invest in a company.

In this study researchers used financial difficulties as a moderating variable. Financial difficulties (financial

distress) is a condition where companies face financial difficulties. According to Platt and Platt (2008), financial difficulties (financial distress) are defined as the stage of the decline in financial conditions that occur before the occurrence of bankruptcy or liquidation.

## MATERIALS & METHODS

The type of research used in this study was descriptive quantitative. Descriptive method is a method used to describe or analyze a research result but is not used to make broader conclusions (Sugiyono, 2014). While quantitative research methods can be interpreted as a research method based on the philosophy of positivism, used to examine the population or a particular sample, data collection using research instruments, data analysis is quantitative/statistical in order to test the hypothesis that has been set (Sugiyono, 2014). This research was conducted at the Indonesia Stock Exchange which provides audited financial statement data by accessing and downloading financial reports. The populations in this study were manufacturing companies listed on the Indonesia Stock Exchange in 2014-2016. The type of data used in this study was secondary data while the method or data collection technique used was documentation techniques.

### Data Analysis Method

The data analysis method used in this study was multiple regression analysis and residual test for moderating variables. The research data was processed using the Statistical Package for Social Science (SPSS) program. Multiple regression

analysis is used to predict how the state of the dependent variable is associated with two or more independent variables. To test the moderating variable was chosen using the residual test (Ghozali, 2011). Testing of classical assumptions used in this study include normality test, heteroscedasticity test, multicollinearity test, auto correlation test (Ghozali, 2011).

Multiple regression analysis intends to predict how the state of the dependent variable is associated with two or more independent variables.

The multiple regression equations used are as follows:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

### Test the Research Hypothesis

The coefficient of determination ( $R^2$ ) measures how far the model's ability to explain the variation of the dependent variable.

The F Statistic Test basically shows whether all the independent variables included in the model have a simultaneous influence on the dependent variable.

The t statistic test basically shows how far one independent variable individually or partially can explain the variation of the dependent variable.

The residual test examines the effect of deviation from a regression model by looking at the Lack of Fit indicated by the residual value.

The regression equation for the residual test is as follows:

$$Z = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \dots(1)$$

$$|e| = b_0 + b_4Y \dots\dots\dots(2)$$

## RESULT & DISCUSSION

### Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Profit Management (Y)	315	-1,7040	1,9518	-,134865	,3003079
Profitability (X <sub>1</sub> )	315	-,6457	11,0139	,612168	2,3412228
Company Size (X <sub>2</sub> )	315	19,5643	33,1988	28,284336	2,1256317
Institutional Ownership (X <sub>3</sub> )	315	,0000	,9977	,662300	,2611773
Leverage (X <sub>4</sub> )	315	-10,1678	8,7055	,622785	3,0531733
Financial Difficulties (Z)	315	-4,1655	15,0468	2,995937	3,5429243
Valid N (listwise)	315				

Source: Research Results, 2018 (data processed)

The table above shows that the data has been normally distributed.

### Normality Test

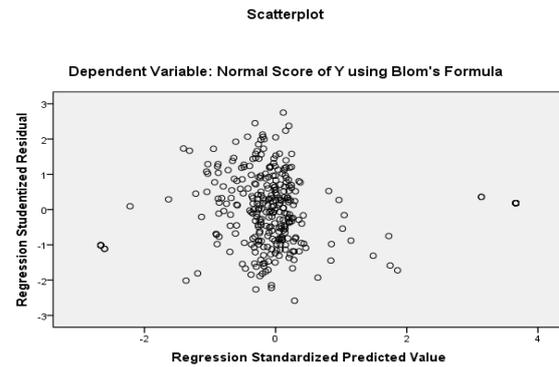
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		315
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.98903502
Most Extreme Differences	Absolute	.046
	Positive	.046
	Negative	-.039
Kolmogorov-Smirnov Z		.808
Asymp. Sig. (2-tailed)		.531
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Research Results, 2018 (data processed)

Based on the above, it is known that the residuals are normally distributed and in the form of symmetry, not right and left.

### Heteroscedasticity Test

Based on the image, there is no clear pattern, and the points spread above and below the number 0 on the Y axis, there is no heteroscedasticity.



Source: Research Results, 2018 (data processed)

### Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Profitability (X <sub>1</sub> )	.546	1.832
	Company Size (X <sub>2</sub> )	.887	1.128
	Institutional Ownership (X <sub>3</sub> )	.875	1.142
	Leverage (X <sub>4</sub> )	.527	1.897

Source: Research Results, 2018 (data processed)

Based on the table, the tolerance value for all variables is above 0.1 and the VIF value is below 10, so it can be concluded that there is no correlation between the independent variables used or no problems in the multicollinearity test.

### Autocorrelation Test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.589 <sup>a</sup>	.346	.338	.9953954	1.879
a. Predictors: (Constant), Leverage (X <sub>4</sub> ), Company Size (X <sub>2</sub> ), Institutional Ownership (X <sub>3</sub> ), Profitability (X <sub>1</sub> )					
b. Dependent Variable: Normal Score of Y using Blom's Formula					

Source: Research Results, 2018 (data processed)

Based on the table above shows that the value of Durbin Watson obtained is 1,879. To find out whether there is autocorrelation can be done by the Durbin Watson test, namely by comparing the DW value of the regression results with the values of dL and dU from the Durbin Watson table. The value of the lower limit table (dL) of Durbin Waston on the number of observations 315 with the number of independent variables 4 is 1.794 and the upper limit (dU) is 1.833. Thus it can be concluded that the value of dU < DW < 4 or 1 < 1,879 < 2,167. This indicates that there is no positive or negative autocorrelation in the regression model used.

### Test F Statistics

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	162.839	4	40.710	41.087	.000 <sup>a</sup>
	Residual	307.152	310	.991		
	Total	469.991	314			
a. Predictors: (Constant), Leverage (X <sub>4</sub> ), Company Size (X <sub>2</sub> ), Institutional Ownership (X <sub>3</sub> ), Profitability (X <sub>1</sub> )						
b. Dependent Variable: Earnings Management (Y)						
Source: Research Results, 2018 (data processed)						

Based on the results of testing on the table, it is obtained that the  $F_{count}$  value is greater than  $F_{table}$  ( $41,087 > 2,243$ ), shows the independent variable (X) affects the dependent variable (Y) and the significant value obtained is 0,000 smaller than 0.05, indicating the independent variable (X) significant to the dependent variable (Y). So it can be concluded that simultaneously the variable profitability, company size, managerial ownership, institutional ownership, and leverage had a significant effect on earnings management.

### Statistical test t

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.522	.776		-1.960	.051		
	Profitability (X <sub>1</sub> )	.126	.032	.240	3.867	.000	.546	1.832
	Company Size (X <sub>2</sub> )	.035	.027	.060	-3.310	.001	.887	1.128
	Institutional Ownership (X <sub>4</sub> )	.914	.230	.195	3.976	.000	.875	1.142
	Leverage (X <sub>5</sub> )	-.117	.025	-.292	-4.616	.000	.527	1.897

a. Dependent Variable: Earnings Management (Y)

Source: Research Results, 2018 (data processed)

The regression equation for earnings quality as the dependent variable that can be formed is:  
 $Y = -1,522 + 0,126X_1 + 0,035X_2 + 0,914X_3 - 0,117X_4 + e$

or Profit Management =  $-1,522 + 0,126$  Profitability +  $0,091$  Company Size +  $0,914$  Institutional Ownership -  $0,117$  Leverage

### Residual Test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4,004	1,739		-2,303	,022
	Profitability (X <sub>1</sub> )	,856	,073	,566	11,764	,000
	Company Size (X <sub>2</sub> )	,229	,063	,138	3,649	,000
	Institutional Ownership (X <sub>3</sub> )	,232	,515	,017	,451	,652
	Leverage (X <sub>4</sub> )	-,266	,057	-,229	-4,689	,000

a. Dependent Variable: Financial Difficulties (Z)

Source: Research Results, 2018 (data processed)

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,804	,033		24,693	,000
	Earnings Management (Y)	-,047	,027	-,099	-1,769	,078

a. Dependent Variable: ABSRES\_1

Source: Research Results, 2018 (data processed)

Based on the table aformentioned, we can see the equation of the Residual Test results:  
 $Z = -4,004 + 0,856X_1 + 0,229X_2 + 0,232X_3 - 0,226X_4 + e$   
 $IeI = 0.804 - 0.047Y + e$

In testing moderation with a residual test approach, a variable is said to moderate the independent variable if the non-free variable regression coefficient is negative and significant (Ghozali, 2013: 244). It can be seen that the coefficient value of earnings

management is  $-0.047$ , which is negative and not significant  $Sig\ 0.078 > 0.05$ . This means that financial difficulty variables cannot moderate the effect of profitability, company size, institutional ownership, and leverage on earnings management.

### CONCLUSION

From the results of the study conducted, it can be concluded that: (1) profitability had a significant positive effect on earnings management; (2) company size had a

significant positive effect on earnings management; (3) institutional ownership had a significant positive effect on earnings management; (4) leverage had a significant negative effect on earnings management; (5) financial difficulties were not able to moderate the correlation between profitability and earnings management; (6) financial difficulties were not able to moderate the correlation between company size and earnings management; (7) financial difficulties were not able to moderate the correlation between institutional ownership and earnings management, and (8) financial difficulties were not able to moderate the correlation between leverage and earnings management.

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How to cite this article: Pasaribu R, Abubakar E, Daulay M. An analysis of the effect of profitability, company size, institutional ownership and leverage on earnings management with financial difficulties as a moderating variable. *International Journal of Research and Review*. 2019; 6(6):402-408.

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