

# The Effect of Company Size on Profit Management

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**Abstract.** The purpose of this study was to determine the effect of firm size on earnings management. The population in this study is the Indonesian Stock Exchange listed company in 2010-2014. The final sample was obtained 418 companies or 1.887 firm-year observation. The sample was selected using purposive sampling technique with some criteria. Research hypotheses were tested by multiple linear regression analysis. Based on test results, it was found that the financial leverage variable has a significant and positive impact to earnings management. The limitations of this research was only five years the company's data, does not include other variables that have a significant effect, as well as research using data of public companies.

Keywords: discretionary accrual, earnings management, financial leverage

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## Introduction

Company activity leads to separation of ownership and control between owners of companies (shareholders) and managers of companies (management). In business development, corporate management does not always act in the interests of the principal. This is then called the agency conflict. High subjectivity in company management provides an opportunity to manipulate income, thus giving a false picture of the content of financial statements. The engineering activity of making the financial statements is irrelevant to the needs of the company owner.

Over the last two decades many studies have focused on accrual-based income and it is known that firms have a strong motivation to manage their income. The size of the firm affects the company's tendency in earnings management and smaller firms are better able to keep company confidential information than large companies (Lee & Choi, 2002). Other studies have found evidence that larger firms have lesser motivation to level profits than small firms (Albrecht & Richardson, 1990). This is because investors and governments find it easier to research large companies (Siregar & Utama, 2008). In contrast, other research results prove that large firms have greater motivation in smoothing earnings (Moses, 1987).

In addition to firm size, other factors affecting earnings management practices are sales growth. This variable is used in research models to detect cases of companies with very high sales growth will result in information asymmetry. This situation can lead to a boost in earnings management.

In relation to financial leverage, one of the alternative sources of corporate funds in addition to selling shares in the capital market is through external sources of funds in the form of debt. The Company will endeavor to fulfill the debt agreement in order to obtain good judgment from the creditors. The motivation of the company to make earnings management is to meet external funding needs and fulfill the debt agreement (Dechow et al., 1995).

The purpose of this research is to know the influence of financial leverage to earnings management, to know the effect of sales growth on earnings management, and to know the effect of firm size to earnings management.

## Literature Review

### *Agency Theory*

An important issue in a surveillance system is the agency problem (Jensen & Meckling, 1976). The existence of a separation of ownership by the principal and the management of the firm by an agent may lead to agency conflict. The concept of agency theory is the relationship or contract between the principal and the agent. The principal employs agents to perform tasks for the best interests of the principal, including delegating decision-making authority from principal to agent. In companies whose capital consists of shares, shareholders act as principals, and CEOs as agents. Agency theory assumes that each individual is motivated to fulfill his or her own self-interest, thus causing conflict between the principal and the agent of the company. Principals are motivated to prosper themselves with increasing profitability. The agent is motivated to maximize the fulfillment of economic and psychological needs, such as obtaining investment, loans, and contracts (Anthony & Govindarajan, 2006).

Principal and agent relationships are often determined by accounting numbers. This spurred the agent to manage the numbers to fit the principal's goals and still gain personal gain for him. One form of agency action is earnings management (Watts & Zimmerman, 1986).

### *Discretionary Profit and Accrual Management*

Profit management occurs when managers use judgment in financial reporting and transaction settlement in financial statements that mislead shareholders about low economic performance or to influence contract yields that depend on accounting figures reported. This indicates that managers use existing policies to mislead financial statement users to achieve the desired results (Helay & Wahlen, 1999).

Various profit management patterns are taking a bath, income minimization, income maximization, and income smoothing. Taking a bath is a form of decrease in earnings in the current period in order for reported earnings in future periods to increase. Income minimization is similar to taking a bath but does not expect high returns in the future. In contrast to income maximization that reports high net income for bonus purposes. Income smoothing is a form of

earnings management performed by leveling the reported earnings (Scott, 2014).

Accounting manipulation, in this case earnings management, can be seen through discretionary accrual. Discretionary accrual is the amount considered as a deviation from the amount of accruals that should be in normal condition (Baridwan & Hariani, 2010). Discretionary accrual (DA) is used as an indicator of the practice of earnings management because it emphasizes the policy of managers in selecting and applying accounting principles to achieve the final result (Bernstein & Wild, 1998). Measurement of this variable using modified jones models. This gauge has been confirmed by many researchers as an effective tool for detecting abnormal accruals (Lukani, 2013).

#### Financial Leverage

Financial leverage or leverage factor is the ratio of book value of all debt to total assets. Financial leverage also shows the extent to which the company's assets have been financed by the use of debt. Financial leverage is proxy with debt to total assets acquired through total debt divided by total assets. The existence of an indication of the company's earnings management to avoid breach of debt agreement can be seen through the company's ability to pay off its debts by using assets owned. Firms that have high leverage rates are allegedly doing income smoothing so that management makes policies that can increase revenue (Kasmir, 2011).

#### Sales Growth

Growth on sales is an important indicator of market acceptance of the company's products and/or services. This is because revenue generated from sales will be used to measure sales growth rates (Swastha & Handoko, 2008).

Sales growth is used to detect earnings management cases because firms with very high growth can produce information asymmetry. This situation may indicate a practice of earnings management. Companies with high sales growth are likely to be motivated to practice earnings management, when faced with the problem of maintaining earnings trends and sales trends. Conversely, in companies with low sales growth rates, they have a tendency to mislead earnings reports or earnings changes through profit-making manipulations (Kim et al., 2003).

#### Company Size

The size of a company is a benchmark of the size of the company by looking at the value of equity, sales value or total value of assets owned by the company. The size of a company is a scale that can be classified large companies by various means, including: total assets, log size, market value (market value), and others. Various studies observe in different ways, but generally the determination of company size based on the total assets of the company (Harahap, 2008). Company size is often used as an indicator for the possibility of bankruptcy for a company. This is because companies with larger sizes are considered more able to face the crisis in running their business.

#### Research Methods

The study population is all non-financial companies of Indonesia Stock Exchange which recorded period 2010-2014. Sample selection based on purposive sampling method with the following criteria, non-financial sector companies and the company presents the financial statements for the period 2010-2014.

The final result of the sample is 418 companies or 1,887 data of the company year. The dependent variable used in this study is earnings management, while the independent variables are financial leverage, sales growth, and total natural asset logarithm.

#### Results and Discussion

Discretionary accrual (DA) as a proxy of earnings management is measured using modified jones model with the following formula.

$$DA_t = \frac{TAt}{At-1} - (\beta_0 + \beta_1 t \frac{I}{At-1} + \beta_2 t \frac{\Delta REV_t - \Delta AR_t}{At-1} + \beta_3 t \frac{PPE_t}{At-1})$$

DA<sub>t</sub> = Discretionary accrual year t.

TAt = Total accrual year t.

At-1 = Total assets year t-1.

ΔREV<sub>t</sub> = Difference in total year sales t and total year t-1 sales.

$\Delta AR_t$  = Difference in total receivables for year t and total receivables for year t-1.

PPE<sub>t</sub> = Total Property, plant and Equipment year t.  
 $\beta_1, \beta_2, \beta_3$  = coefficients.

High financial leverage (FL) indicates an increasingly high company's failure to repay loans and obligations. Firms with high debt levels are at high risk, resulting in fluctuations in earnings and encouraging management to practice earnings management.

H1: Financial leverage affects earnings management

The ratio of financial leverage shows the comparison of borrowed funds from creditors compared with the assets of the company. Measurement of independent variable financial leverage using debt to ratio or debt to asset.

$$\text{Debt ratio/debt to asset} = \frac{\text{Total debt}}{\text{Total asset}}$$

Companies with high sales growth (SG) are likely to be motivated to practice earnings management, when faced with the problem of maintaining earnings trends and sales trends. Conversely, firms with low sales rates have a tendency to mislead earnings or earnings changes through earnings manipulation.

H2: Sales growth affects earnings management

Measurement of the independent variable of sales growth using the following formula.

$$\text{Sales growth} = \frac{\text{Sales total } t - \text{sales total } t - 1}{\text{Sales total } t - 1} \times 100\%$$

Sales growth = Company's sales growth in percentage.

Total sales t = Total sales year t.

Total sales t-1 = Total sales year t-1.

The size of the firm plays an important role in terms of profit manipulation. Both large companies and small firms each tend to manage their earnings.

H3: Company size affects earnings management

The independent variable of logarithm of natural asset (LnA) is dummy variable that is 1 if the natural log of total asset of a company is bigger than average value compared to other company. Grouping these large and small companies using Microsoft Excel applications.

Initial test before performing regression test is a classical assumption test. This test consists of normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

The first classical assumption test is the normality test. A variable is said to be normal if it has a significant value above 0.05. Kolmogorov-Smirnov test results have a significant number above 0.05 for each variable and shown by the Table 1.

Table 1  
Normality Test

Variable	Value
Discretionary Accrual	0.680
Financial Leverage	0.756
Sales Growth	0.756
Logarithm Natural Asset	0.051

The next classical assumption test is a multicollinearity test. Multicollinearity is a serious problem if continuous independent variable exceeds 10. The common cut off value used to indicate the presence of multicollinearity is tolerance value  $\geq 0.10$  or equal to VIF value  $\leq 10$ . Based on Table 2 it is known that the tolerance value of all independent variables  $\geq 0.10$ , as well as VIF values are all worth  $\leq 10$ , so it can be concluded that the regression model in this study is free from multicollinearity.

Table 2  
Multicollinearities Test

Variable	Tolerance	VIF
Financial Leverage	0,984	1,016
Sales Growth	0,964	1,037
Logarithm Natural Asset	0,980	1,021

Detection of heteroscedasticities is to see whether there is a certain pattern of distribution on the scatterplot chart. If there is a certain pattern that is regular (wavy, widened then narrowed) then indicates there has been heteroscedasticity. The opposite result if the pattern does not show a clear pattern, as well as dots spread above and below the number 0 on the Y axis. Based on Figure 1 it appears that the dots spread randomly and spread either above or below the number 0 on Y axis. It can be concluded that there is no heteroscedasticity in the regression model, so that the regression model is appropriate to predict the hypothesis.

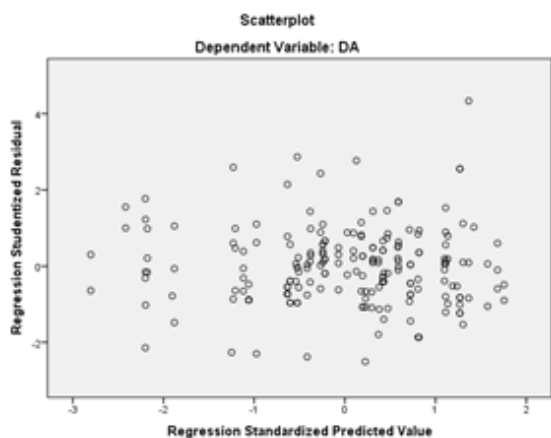


Fig. 1. Heteroscedasticities

Autocorrelation test aims to test the linear regression model that is the correlation between intruder errors in period t and period t-1. If there is a correlation then there is an autocorrelation problem. Due to the amount of data being too large, I used run-test to test autocorrelation.

Run-test as part of non-parametric statistics can be used to test for residual correlation. If between residuals there is no correlation relationship (> 0.05) then it is said that the residual is random or random. Run-test is used to see if the residual occurs randomly or not. The decision of the hypothesis can be seen as follows.

- H0: Residual random (random).
- H1: Residual is not random.

The test results show that the run-test value > 0.05 which means the null hypothesis failed to be rejected. Thus, the data used is quite random or random so there is no problem auto correlation on the data tested.

Table 3  
Autocorrelation Test

	Run-test Value
Residual	0.121

After testing the classical assumption, hypothesis testing is performed. This test is done by a partial T test and compares between T arithmetic and T table. To find T table then calculated as follows.

$$t \text{ table} = \text{level of trust} / 2; \text{ number of samples} - \text{number of dependent variables} - 1$$

or

$$t \text{ table} = \alpha / 2; d.f = n - k - 1$$

$$t \text{ table} = 0.05 / 2; d.f = 1.887 - 3 - 1$$

$$t \text{ table} = 0.025; d.f = 1.883$$

Based on the distribution table t value table, with a confidence level of 0.05 and d.f 1.883, then the value of t table is 1.961. The results of the Partial T Test are shown in table 4. In the three independent variables: financial leverage, sales growth and natural asset logarithm, only one of the results is significant against the dependent variable (discretionary accrual), i.e. financial leverage variable.

Based on the research model that has been described above, then obtained the following multiple regression equation.

$$DA_t = \beta_0 + \beta_1 FL_t + \beta_2 Sales_t + \beta_3 LnA_t + \epsilon_t$$

- $\beta_0$  = Constants
- FLt = Financial leverage year t
- Sales t = year sales growth t
- LnAt = Natural logarithm of year asset t
- $\epsilon_t$  = Regression error

Stages of research

The author calculates the discretionary accrual using a base year with the jones model formula (1991). The obtained coefficients are then incorporated into the modified jones model formula. The results obtained are non-discretionary accruals that will be deducted from the total accruals. The difference between non-discretionary accrual and total accrual is discretionary accrual.

The mathematical results obtained show that from 1,887 data of the firm year, 32% of them practice earnings management. The entire value obtained will be converted to an absolute value and will be the dependent variable of earnings management to test the hypothesis.

Table 4  
Hypothesis Test

Variable	Coefficient	t	Sig.	R2
DA	-0.748	-6.869	0.000	
FL	0.403	2.009	0.046	
SG	0.050	0.857	0.392	0.332
LnA	-0.034	-0.545	0.586	

It is known that the independent variable gives 33.2% influence to the dependent variable (column R2). Based on the above table it can be formed the results of research regression as follows.

$$DA_t = -0,748 + 0,403X + 0,050X - 0,034X + \epsilon_t$$

Regression results indicate that the variable financial leverage gives a significant effect on earnings management. This is shown by the regression test result table. In this table, the financial leverage variables are at  $T > 2.009$  or  $> 1.961$ . This statement is reinforced by the Sig value. Which is below 0.05 so the results are significant. The financial leverage variable also shows a direct or positive result on the regression result of 0.403. This means that each increase in financial leverage is one unit, the discretionary accrual increases by 0.403. If it can be concluded, then the first hypothesis (H1) that is financial leverage effect on earnings management can be accepted. Financial leverage shows the proportion of debt usage to finance its investment. The greater the company's debt, the greater the risk faced by investors. The results of the authors' research is significant and positive value means that when the financial leverage increases, the investor's attention to the condition of the company is increasing. The investor then acts to oversee the practices that occur in the company especially regarding earnings management. Linciani (2013) research, he found the influence of significant and positive financial leverage variable to earnings management. This means that the results of the study authors can be categorized consistent with previous research because it has the same results.

The second variable, sales growth, showed insignificant results. Sales growth is worth 0.392 or is under the significant condition that is  $< 1.961$ . Significant terms are further strengthened by the Sig value. Which is above 0.05 is worth 0.857. This means that sales growth does not have a strong enough effect on earnings management. In the regression results, the variable of sales growth shows a positive number or direction with the dependent variable of 0.050. This means that if the sales growth increases by one unit, the discretionary accrual increases by 0.050. The conclusion is that the second hypothesis (H2) is unacceptable. Sales growth becomes one of the factors of profit management object by the company because of the view from the investor's point of view. According to the investor's point of view, the growth of a company is a sign that the company has a favorable aspect. Investors expect a high rate of return (return on investment) of the investments made. This leads management to manage its own earnings in terms of sales because some investors and/or potential investors focus on the company's sales growth rate. The Linciani (2013) study found a significant effect and positive outcome of sales growth on earnings management. Thus the

results of this study cannot be said to be consistent with previous research because it has different results.

Regression results show that the natural logarithm of assets has no significant effect on earnings management. This is shown by the value of -0.545 in the T column and 0.586 on the Sig column. This means that sales growth variables do not have a significant effect on earnings management. The regression result table also shows a negative number of -0.034. This means that if the natural logarithm of an asset increases by one unit, the discretionary accrual decreases by 0.034. The results of this regression also shows that between the two variables are not unidirectional because the negative value. The authors draw the conclusion that the third hypothesis (H3) is unacceptable, because it is negative and does not have a significant effect. The research conducted by the authors is inconsistent with the Lajarii (2013) study. Linciani found that there was a significant and positive influence between the natural logarithm of the asset and the earnings management. This means that in this study firm size has no significant effect on earnings management practices. The size of the company is one indicator of the practice of corporate earnings management. This is because the size of the company can determine the level of ease the company obtains funds as well as the bargaining power of the financial contract. The size of the firm will affect the company's funding structure. This led to the tendency for companies to require more funds. The need for a larger fund means that the company wants profit growth so there is an indication of earnings management practices. In the author's study, firm size has no significant effect. This shows that companies in Indonesia do not take advantage of firm size (total assets) as a profit management act.

## Conclusion

This study aims to examine the effect of firm size on earnings management in listed companies Indonesia Stock Exchange 2010-2014. The earnings management is represented by the discretionary accrual dependent variable and is done by regressing the Jones Model modified by Dechow et al. (1995). The number of samples examined as many as 418 samples or 1887 data of the company's year Indonesia Stock Exchange (beginning of 2015).

The results of this study are quite consistent with the Lajarii (2013) study, the authors found that

companies engage in earnings management practices. This can be seen from the discretionary accrual table that the author has previously regressive.

The independent variable has a low enough effect on the discretionary accrual variable, it is based on the analysis of coefficient of determination can be said that the effect of firm size to the management of earnings of 33.2%, while the remaining 66.8% is the influence of other factors not included in this research.

Based on the hypothesis test can be concluded that the independent variable that significantly influence the dependent variable is financial leverage. Variable of sales growth and natural logarithm of asset have no significant effect to discretionary accrual because T value is above 1,961 and Sig column below 0.05. This means that the hypothesis received only the first hypothesis, namely financial leverage affect the earnings management.

The authors acknowledge there are some limitations in this study. The limitations are as follows. First, independent variables in this study had an effect of only 33.2%, meaning that there are other variables not included in this study have a greater effect on earnings management. Second, year of study only within five years.

Based on the results of research, conclusions and limitations faced by the author in developing the research, the authors expect some things that can be a reference for further researchers who want to develop this research. These suggestions authors summarize as follows: the next research can add other independent variables such as audit quality, CEO changes, and more; duration of research is longer to get more accurate results; company samples are obtained from private companies.

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