




The effect of company size and leverage on earnings management practices in food and beverage sub-sector companies on the Indonesian stock exchange

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Article Info	ABSTRACT
<p>Article history:</p> <p>Received mar 02, 2021 Revised Mar 15, 2021 Accepted Mar 29, 2021</p> <hr/> <p>Keywords:</p> <p><i>Earning Management; firm size; leverage.</i></p>	<p>The objective of the research is to find out empirical evidence of the influence of firm size and leverage on earnings management. The population of this study were listed foods and beverages companies in the Indonesia Stock Exchange. The sample was determined based on the following criteria: (a) the annual report ended December 31, and (b) available and published on the Indonesia Stock Exchange website during the research period. There were 12 companies complying with the criteria. Data analysis was carried out in terms of pool cross-section covering the annual financial report during 2004-2008. The research hypotheses were tested using multiple regression analysis. Firm size was measured by logarithm, leverage was measured by debt to equity ratio and earnings management was estimated by Utami model.</p> <p><i>This is an open access article under the CC BY-NC license.</i></p> 

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1. INTRODUCTION

Financial statements are a communication medium that is used to connect between companies and parties with an interest in the company. One of the important parameters in the financial statements used to measure management performance is profit. The choice of accounting methods that are deliberately chosen by management for certain purposes is known as earnings management (Rahmawati et al; 2006).

Practitioners consider earnings management to be fraudulent, while academics view earnings management as fraudulent. In terms of financial reporting, managers can carry out earnings management to mislead owners about the company's economic performance. However, managers consider that earnings management is a flexible thing to protect themselves and the company in anticipating unforeseen events.

This is in line with the reasons why managers are motivated to do earnings management. Managers can engineer company profits to be higher or lower than actual profits depending on what the underlying motivation is. There are several factors that affect earnings management. Watt and Zimmerman as cited by Sulistyanto (2008) divide earnings management motivation into three, namely the bonus plan hypothesis, debt to equity hypothesis, and political cost hypothesis.

Nofira (2006) states that company size is another variable that is correlated with earnings management. Mpaata and Sartono (2006) say that company size or company scale is the size of the company which is determined by the total assets owned by the company. Large companies have

considerable incentives to carry out earnings management, because one of the main reasons is that large companies must be able to meet the expectations of their investors or shareholders.

McGraw-Hill (2007; 520) in his book entitled "Financial Statement Analysis" says that like a booster, on the one hand, debt can make a company's growth faster when compared to only relying on its own capital. However, if the value is too large, debt can also make the company's financial condition unhealthy. Therefore, investors need to study the leverage ratios owned by each company. The leverage ratio shows how much a company uses external debt to finance its operations and expansion. Leverage is often interpreted as a company performance booster and is synonymous with debt.

Scott (2003; 384) states that the practice of income smoothing which is a form of earnings management is often carried out by companies when they face coercion from creditors by changing their accounting methods. With the greater the leverage ratio, the risk borne by the owner of capital will also increase.

The formulation of the problem used in this study, namely: does company size have a significant effect on earnings management practices?, does leverage have a significant effect on earnings management practices?

2. RESEARCH METHOD

The research design used is causal research, namely research to find answers to the problems faced. In this study, the method used in sampling is purposive sampling, which is a sampling technique with certain considerations. The samples taken are companies in the consumer goods industry that are listed on the Indonesia Stock Exchange (IDX). In this study, in collecting data, the authors used secondary data. Data collection was obtained through the Indonesia Stock Exchange

The approach used to determine the value of discretionary accruals (earnings management) is the Utami approach as follows: Earnings Management (DACC) = Working Capital Accruals (t) / Sales period (t) Working Capital Accruals = $\Delta AL - \Delta HL - \Delta Cash$ Where: ΔAL = change in current assets in period t ΔHL = change in current liabilities in period t $\Delta Cash$ = change in cash and cash equivalents in period t.

Before testing the strength of the influence of the independent variable on the dependent variable, a test was first carried out to prove that in the year observed there had been indications of earnings management. In this study researchers used the Utami model.

The equation that will be used in this study is as follows:

$$DACC = a + b_1 \text{LogSIZE} + b_2 \text{LEV} + e \dots \dots \dots (1)$$

Information:

- A. DACC is earnings management
- B. a is a constant
- C. LogSIZE is the logarithm of the size of the company
- D. LEV is leverage
- E. b₁ is the coefficient of SIZE
- F. b₂ is the coefficient of Leverage
- G. e is error

The research hypothesis:

- Ha₁ : Firm size has a significant effect on earnings management.
- Ha₂ : Leverage has a significant effect on earnings management.

In this study, data processing will use multiple regression analysis techniques (multiple regression). In accordance with the problems and formulation of the model that has been put forward and for the purposes of testing the hypothesis, the analytical techniques used in this study include descriptive statistics and statistical analysis.

Descriptive statistics

Table 1 Descriptive statistics

Information	Discretionary Accruals (DACC)N = 60	LogSize N = 60	Leverage (DER) N = 60
Minimum	-,29131	10.98	-3.39
Maximum	,35514	13.56	4.89
Means	,0085620	11.9260	1.1757
Standard Deviation	,12391517	,58773	1.24779

Source: Author's calculations via SPSS

Based on table 1 it can be seen that the number of samples that have been studied is 60 samples, in descriptive statistics it can be seen the mean value, as well as the level of dispersion deviation (standard deviation) of the variables studied. The average profit management value for the food and beverage sector on the IDX is 0.0085620 or 0.856% of sales with a minimum value of -0.29131 or -29.13% and a maximum of 0.35514 or 35.51% of sales while the value of the standard deviation of earnings management is known to be 12.39%. The logarithm of company size has an average value of 11.926 with a maximum value of 13.56 and the lowest value is 10.98. The standard deviation shows 58.77%, which means that the difference between one company size and another is relatively high. Leverage has a mean of 1.1757, which means that if the ratio is greater than 1 it indicates that the creditor bears a greater risk burden than the company owner. The minimum value of leverage that occurred in consumer goods sub-sector companies in the 2004-2008 period on the IDX was -3.39 and the maximum was 4.89. The standard deviation is 1.24 and this shows a moderate difference between one company and another.

Analysis of Research Results

Table 2. Discretionary accruals

Company	2004	2005	2006	2007	2008
PT. Ades Waters Indonesia Tbk	0.146949	-1.27053	-1.16913	0.359577	-0.13736
PT. Aqua Golden Mississi Tbk	0.085263	0.049735	0.055221	0.012181	0.037992
PT. Cahaya Kalbar Tbk	-0.28334	0.094681	0.170454	-0.01058	0.29297
PT. Davomas Abadi Tbk	0.050039	-0.02902	0.09691	0.095676	0.053922
PT. Delta Djakarta Tbk	-0.11584	0.083611	0.118573	-0.06075	-0.12209
PT. Indofood Sukses Makmur Tbk	-0.06382	0.022978	-0.07739	-0.17721	-0.01394
PT. Multi Bintang Indonesia Tbk	-0.05006	-0.03609	-0.07976	-0.10097	0.096195
PT. Mayora Indah Tbk	0.015934	-0.04696	0.084628	0.010403	0.010962
PT. Prasadha Aneka Niaga Tbk	0.077973	0.261746	-0.05101	0.003681	-0.01475
PT. Sekar Laut Tbk	-0.12769	1.071604	0.04892	0.003042	0.031365
PT. Siantar TOP Tbk	0.046499	0.030179	0.047339	-0.08916	-0.06096
PT. Ultra Jaya Milk Tbk	0.355142	-0.10424	-0.13935	0.256276	-0.05445

Source : Author's calculations

Based on table 2, it can be said that in the year of the study there was a profit management of 65% which was decreasing income. For example at PT. Multi Bintang Indonesia Tbk for 4 consecutive years there has been earnings management which is decreasing in income by looking at the negative discretionary accruals (DACC) values, which means that management tends to reduce profits. The DACC value in 2004 was 0.05006, meaning that there had been a decrease in income of 0.05006 or 5.0% of sales.

Normality test

Table 3 Normality test results

Variable	Provision	Results	Information
DACC	Signs > 5%	0.528	Normally distributed
LogSiZE	Signs > 5%	0.204	Normally distributed
Lev (DER)	Signs > 5%	0.063	Normally distributed

Source: Author's calculations via SPSS

Based on table 3 the normality test shows a significance greater than 0.05. Thus it can be concluded that the research data is relatively normally distributed.

Autocorrelation Test

Table 4 Autocorrelation test results

Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.404(a)	.163	.134	.11531407	2.036

a Predictors: (Constant), Lev (DER), logsize

b Dependent Variable: DACC

To find out whether the data in this study contains autocorrelation or not, it can be seen from the Durbin – Watson test which gives a DW value of 2,036, this value will be compared with the DW table value with a total sample of 60, the number of independent variables is 2 and a 5% confidence level is obtained. $dl = 1.51$ and the value $du = 1.65$. Then the following results are obtained:

Multicollinearity Test

Table 5. Multicollinearity test results

Variable	Provision	Results	Information
LogSiZE	Tolerance > 0.10 VIF < 10	Tolerance = 0.870 VIF = 1.149	There is no Multicollinearity
Lev (DER)	Tolerance > 0.10 VIF < 10	Tolerance = 0.870 VIF = 1.149	There is no Multicollinearity

Source: Author's calculations via SPSS

Based on table 6, it can be seen that between the independent variables there is no multicollinearity interference, this is indicated by the tolerance and VIF values, each of which ranges from number 1, namely Log SIZE (logarithm of total assets) 1.149 and Leverage (DER) 1.149. The results of data processing using VIF are as shown in the table, the tolerance value for all independent variables is greater than 0.10, namely log SIZE (logarithm of total assets) 0.870 and leverage (DER) 0.870. Thus the tolerance and VIF values indicate that there is no harmful multicollinearity in the 2004-2008 changes in this research model.

Heteroscedasticity Test

Table 7 Results of Heteroscedasticity

Variable	Provision	Results	Information
LogSiZE	Signs > 5%	0.094	There is no Heteroscedasticity
Lev (DER)	Signs > 5%	0.616	There is no Heteroscedasticity

Source: Author's calculations via SPSS

Based on table 4.7 there is not a single statistically significant independent variable affecting the dependent variable. This can be seen from the significance probability above the 5% confidence level. The log SIZE significance level is 0.094 and the leverage significance level is 0.616. So it can be concluded that the regression model does not contain heteroscedasticity.

Statistic test

Coefficient of Determination (Adjusted R₂)

Table 8 Coefficient of Determination

	R	R square	Adjusted R square
Model	0.404	0.163	0.134

Source: Author's calculations via SPSS

Based on table 8, the adjusted R square value of 0.134 means that the independent variable firm size and leverage (DER) is able to explain 13.4% of the variation in earnings management. The rest (100% - 13.4% = 86.6%) is explained by other factors not included in the research model. This shows that there are other reasons besides company size and leverage that affect earnings management.

T test

Table 9 Table of T statistical test results

Variable	B	Q	Provision	Results
DACC	0.651	2.023	Sig < 0.05	0.048
LogSIZE	-0.058	-2.114	Sig < 0.05	0.039
Lev (DER)	0.041	3.169	Sig < 0.05	0.002

Source: Author's calculations via SPSS

Based on the table above, the equation model obtained in this study:

$$\text{DACC} = 0.651 - 0.058 \text{ LogSIZE} + 0.041 \text{ LEV} + e$$

It can be seen from the results of the t test in table 4.9 that it turns out that the company size variable (LogSIZE) and leverage are significant at the level $\alpha = 5\%$. The company size variable can explain earnings management with the t test conducted above. The t value for the firm size variable is -2.114 with a t significance of 0.039. With a significance level of 0.039, it is smaller than $\alpha = 5\%$. This means that statistically firm size has a significant influence on earnings management, according to the hypothesis put forward.

Leverage variables based on table 4.9 can also explain earnings management variables with the t test. The t value on the leverage variable is 3.169 with a significance value of 0.002 which is smaller than 0.05. This means that statistically leverage has a significant effect on earnings management, according to the hypothesis put forward.

In this study, it is statistically proven that CSR has a significant influence on the financial performance of state-owned banks as measured by ROE (Ho is rejected), with a significance level of 0.003 or less than 0.05.

4. CONCLUSION

Based on the analysis and discussion it can be concluded that Corporate Social Responsibility (CSR) has a significant effect on the financial performance of state-owned banks in Indonesia as measured by Return On Equity (ROE). State-owned banks in Indonesia that implement CSR have a significant influence on their Return On Equity (ROE). According to the hypothesis, leverage proxied by the debt to equity ratio has a significant effect on earnings management. Companies that are threatened with default tend to do earnings management by increasing profits. This is done in order to avoid breach of debt agreement contract (Debt Covenant Hypothesis). In accordance with the hypothesis, that company size has a significant effect on earnings management. So the size of the total assets of a company in this study can identify the occurrence of earnings management.

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