

EARNING MANAGEMENT ANALYSIS: THE ROLE OF FIRM SIZE, LEVERAGE, MANAGERIAL OWNERSHIP AND PROFITABILITY

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Abstract

This study aims to determine the effect of firm size, leverage, managerial ownership, and profitability on earning management in a convenience goods company, PT. Tiga Pilar Sejahtera Food Tbk, which is listed on the Indonesian stock exchange under the name AISA. Secondary data are collected through the company's financial statement from 2006 to 2020. The data were collected from the Indonesian Capital Market Directory (ICMD) and the Indonesian stock exchange websites. The quantitative approach was used to analyze the data. Then, the data were regressed by Ordinary Least Square estimation using Eview 12 software. Results revealed that firm size, managerial ownership, and profitability have no significant influence on earning management. However, leverage partially has a negative and significant effect on the earnings management. Meanwhile, firm size, leverage, managerial ownership, and profitability simultaneously influence earnings management of PT. Tiga Pilar Sejahtera Food Tbk significantly from 2006 to 2020 period. This research only uses some of the determinants of earnings management from many other factors that also have a contribution such as institutional ownership, board of commissioners, auditor reputation, etc. In addition, the use of several research objects in the form of companies engaged in the same business sector is also recommended for further research in order to obtain a more comprehensive and representative view. This research has implications for the company's management considerations in making decisions to carry out earnings management. This form of intervention is ideal as long as it is carried out in accordance with accounting principles. This must be ensured so that the company's economic picture remains visible and risk management can still be carried out.

Keywords: Firm Size, Leverage, Managerial Ownership, Profitability, Earning Management.



THE INTRODUCTION

Financial reports are a form of manager's responsibility to a business owner. It consists of information that deals with income and other components. It conveys a company's financial and economic performance within certain periods in compiling financial reports. Company management must provide a positive signal to the market about the business condition they manage. Therefore, company managers often involve engineering actions on financial statements, namely earning management, to present excellent financial reports to shareholders and other external users.

Earning management is not an illegal action. However, these activities impact perceptions of risks which require comprehensive thought in their implementations (Bortoluzzo et al., 2016). It also directly impacts the predictive ability of financial statements on the firm's future profitability. Thus, the profit within the financial report is often a target of engineering through an opportunistic management action to maximize satisfaction (Hasty & Herawaty, 2017). From a national company perspective, micro-management of earnings can be hidden quickly; hence, the company may experience financial challenges, collapse, and even worse, bankruptcy in the long term. Meanwhile, at the macro level, earning management has created a business world that seems to be a place for perpetrators of corruption, collusion, and many other cases of abuse that are detrimental to the public. The public considers information conveyed by business world as the perpetrator's machination to maximize individual and certain group benefits, which ignores other parties' interests (Sulistyanto, 2018). Meanwhile, Lisboa mentions that earning management often occurs during crisis when the company's financial condition is less stable (Lisboa, 2016). In line with this, Haider et.al. also state that earning management significantly impacts dividend policy, especially when economic conditions experience a decline period where most companies downsize dividend payments (Haider et al., 2012).

The agency theory describes that earning management occurs due to different economic interests between management as an agent and the entity's owner as the principal. The distinction in economic interest generates an information gap between stakeholders and organizations (Gunawan et al., 2015). Whereas, according to Anggraeni & Hadiprajitno the agency relationship is a contract in which one or more owners (principals) use other people or agents (managers) to run company activities. The agency theory focuses on the relationship between two people, namely the agent and the principal (Anggraeni & Hadiprajitno, 2013). In the accounting theory concept, management as an agent should act following principal interests; hence they can take action that focuses on maximizing their interest (Purnama, 2017)

Earning management is an attempt by a company manager to intervene or influence information within financial reports to deceive stakeholders who aim to find out the company's condition and performance. Some parties consider earning management a fraudulent act that violates accounting principles. This attempt uses existing accounting methods and standards to deceive financial report users. Meanwhile, others consider that earning management is common activity managers conduct in compiling financial reports, especially if the managerial engineering effort is carried out within the scope of accounting principles.

Earning management is measured by using a discretionary accrual proxy. The model is used to calculate discretionary accruals based on Dechow's Modified Jones Models Dechow (1995) as follows:

Determining the total accrual value (TA) with the formulation:

$$TA_{it} = NI_{it} - CFO_{it}$$

Description:

TA_{it} = Total accruals of company i in period t.

NI_{it} = Net profit of company i in period t.

CFO_{it} = Operating cash flow of company i in period t.

- a. Calculating estimated accruals values with the OLS (*Ordinary Least Square*) regression equation:

$$TA_{it}/A_{it-1} = \beta_1(1/A_{it-1}) + \beta_2(Rev_{it} - Rev_{it-1})/A_{it-1} + \beta_3(PPE_{it}/A_{it-1})$$

Description:

TA_{it} = Total accruals of company i in period t.

A_{it-1} = Total assets of company i in period t-1.

Rev_{it} = Change in net sales of company i in period t.

Rev_{it-1} = Change in net sales of company i in period t-1

PPE_{it} = Property, plant, and equipment of company i in period t.

$\beta_1, \beta_2, \beta_3$ = The coefficient obtained from the regression equation.

- b. Calculating the value of non discretionary accruals (NDA) with the formulation:

$$NDA_{it} = \beta_1(1/A_{it-1}) + \beta_2([Rev_{it} - Rev_{it-1}] - [Rec_{it} - Rec_{it-1}])/A_{it-1} + \beta_3(PPE_{it}/A_{it-1})$$

Description:

NDA_{it} = Non discretionary accruals company i in period t.

Rec_{it} = Receivable changes of company i in period t.

Rec_{it-1} = Receivable changes of company i in period t-1.

- c. Determining discretionary accruals values which are indicators of accrual earning management by calculating total accruals with non-discretionary accruals, with the formulation:

$$DA_{it} = (TA_{it} / A_{it-1}) - NDA_{it}$$

Description:

DA_{it} = Discretionary accruals company i in period t.

TA_{it} = Total accrual company i in period t.

A_{it-1} = Total asset for company sample at the end of year t-1

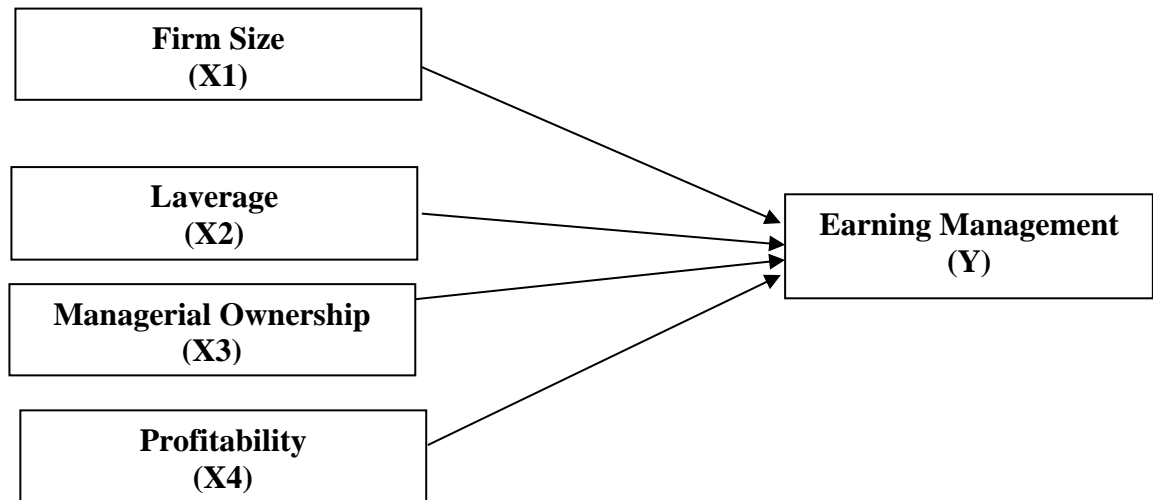
NDA_{it} = Non-discretionary accruals company i in periode t.

The earning management phenomena occur massively in several large

companies, such as PT. Tiga Pilar Sejahtera Food Tbk (AISA). There are earning management practices as published in CNBC Indonesia.com. After a raid on PT. Indo Beras Unggul (IBU), which is a subsidiary company of PT. Tiga Pilar Sejahtera Food Tbk (AISA) was accused of collecting rice from farmers and enjoying the government subsidies to be processed and repackaged into premium rice; the company failed to pay its 2013 sukuk ijarah with a principal value of IDR 300 billion, which is due on April 5th, 2018 and the bond in the same year with an emission value of IDR 600 billion, which is due on April 5th, 2018. Meanwhile, investors and their shareholders rejected the financial statements for 2017 financial year due to allegations of embezzlement of funds.

According to the result of a fact-based investigation reported by PT Ernst & Young Indonesia (EY) to the new management of AISA dated March 12th, 2019. The alleged inflation is suspected to occur in the AISA groups' accounts receivable, inventories, and fixed assets. It was found that there was an increase in funds amounting to IDR 4 trillion. There were also findings of an alleged inflated income of IDR 662 billion and other inflation of IDR 329 million in the EBITDA post (earning before interest, taxes, depreciation, and amortization) of the food business entity of the issuer. Another finding at PT Ernst & Young Indonesia (EY) report is the flow of funds of IDR 1,78 trillion through various schemes from the AISA group to parties allegedly affiliated with the earning management.

Practically and based on previous studies, earning management is influenced by several factors, including company size, leverage, managerial ownership, and profitability. It is illustrated in the following framework:



Picture 1: A Proposed Research Model

LITERATURE REVIEW

Firm Size

Company size is an illustration of market capitalization which influence earning management, total assets, and sales owned by a company. The company size is pivotal in the process of financial reports. It shows the number of assets owned by a company. Theoretically, if a company has a large asset, the company will take earnings management actions. According to Agustina et. al., large companies generally have considerable opportunities to manage earnings (Agustina et al., 2018).

Company size represents total assets, sales, and market capitalization. In this study, firm size is calculated by using the natural logarithm of total assets; thus, it is formulated as follows:

$$\text{Firm Size} = \ln (\text{total aset})$$

Research conducted by Jao and Pagalung show that company size significantly negatively affects earnings management. Large companies will be more cautious in reporting financial conditions accurately because the public gives them more attention. At the same time, small companies tend to conduct

earnings management by reporting larger profits to show better company performance (Jao & Pagalung, 2011). Similarly, the result of research conducted by Handriyono indicated a significant negative relationship between firm size and earnings management. Meanwhile, Moradi et. al., mention a significant positive relationship between firm size and earning management (Moradi et al., 2012). In line with Astari & Suryanawa's research, company size influence has a positive and significant effect on earning management where large companies have encouragement to perform income smoothing compared to small companies as larger firms are viewed and researched critically by investor (Astari & Suryanawa, 2017). Contrastly, Anggraeni & Hadiprajitno, and Pradipta propose that company size has no significant effect on earnings management (Anggraeni & Hadiprajitno, 2013; Pradipta, 2019). Therefore, the formulated hypothesis to connect both variables is as following:

H1: Firm size significantly influences earning management

Leverage

One of the sources of alternative company funds besides selling shares in capital market is through external sources of funds in the form of debt. The company undertakes efforts to accomplish debt agreements to obtain a satisfied evaluation from creditors. It motivates managers to manage earnings to avoid violating debt agreements. Leverage is a ratio that measure the extend the company uses debt to finance its operations. The leverage ratio within this research is proxied by the Debt to Asset Ratio. Debt to Asset Ratio (DAR) is a leverage ratio that compares the amount of debt used with assets to accomplish the company's operational activities.

$$\text{Debt to Asset Ratio} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

Companies that own a high debt-to-asset ratio indicate the debt proportion is higher than the proportion of assets which tends to manipulate in the form



of earning management (Agustina et al., 2018). Considering several previous studies, there were distinctions in the research results related to the influence of leverage on earnings management. The finding of Pratama's research shows that leverage influences earnings management where the level of leverage owned by a company, the higher the earnings management carried out by management (Pratama et al., 2016). Similarly, the results of Firnanti's research also shows that a high amount of leverage owned by a company contributes to difficulties in obtaining additional capital; thus company tends to take earnings management actions (Firnanti, 2018). In contrast, the result of Jao & Pagalung's research show that leverage has no significant influence on management where high leverage company, due to a large total of debt to total capital, will face a high risk of default, the company threatened with being unable to fulfill its obligations (Jao & Pagalung, 2011). However, the hypothesis developed for the relationship between leverage and earning management within the current research.

H2 : Laverage has a significant effect on earning management

Managerial Ownership

Managerial ownership is the management shareholder who activey involve in making company decision (Directors and Commisioners). Theoritically, if a management's ownership is lower, the incetive for the possibility of behaviour to benefit the manager will increase or the manager's chances of managing earnings will be higher (Yusrilandari et al., 2016). In other words, management who has a high percentage of share ownership will act as an individual who holds an interest in the company. Managers who hold company shares will be reviewed by parties involved in the contract such as the election of an audit committee which creates demand for quality financial reporting by shareholders, creditors, and users of financial satatements to ensure the efficiency of contract made. Managerial ownership within the

current research is measured by the following formula:

$$\text{Managerial ownership} = \frac{\text{Total of Manager Share}}{\text{Total of distributed share}} \times 100\%$$

Research conducted by Anggraeni & Hadiprajitno highlight that managerial ownership has no significant influence on earnings management, where managerial ownership plays a minimal role in making decisions about company management, including earnings management (Anggraeni & Hadiprajitno, 2013). Managerial ownership influence negatively on earning management. Increasing managerial ownership will align or unify the interests of managers and shareholders, minimizing opportunistic behavior. In contrast, the research conducted by Hasty & Herawaty highlight that managerial ownership has a positive direction toward earning management; the higher managerial ownership, the more opportunistic earnings management practices increase (Hasty & Herawaty, 2017). The hypothesis for the relationship between managerial ownership and earning management is as follows:

H3: Managerial Ownership has a significant effect on earnings management

Profitability.

Profitability is a variable that can encourage earnings management. The operation of assets owned by the company to earn profits becomes a benchmark for a company's performance. If a company's profitability is low, the bonus received by company management will also be low. Therefore, generally, management tends to take earnings management actions; as a result, they will obtain bonuses or compensation. Investors will believe the company's performance is outstanding if the profitability is high. The Return measures the profitability in this study on the Assets (ROA) ratio scale, which is formulated as follows:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Asset}}$$

The higher the ROA, the better the asset productivity in achieving net profit (Zakia et al., 2019). Research conducted by Purnama shows that profitability positively affects earnings management (Purnama, 2017). Whereas Gunawan et. al., state that profitability has no effect on earnings management where companies with a high level of profitability will not perform earnings management (Gunawan et al., 2015). The hypothesis for the relationship between profitability and earnings management is as follows:

H4: Profitability influence significantly on earnings management

Based on the inconsistency of previous research results, this study aims to investigate the existence of earnings management practices and re-examine factors that influence them. These are limited to company size, leverage, managerial ownership, and profitability.

METHODOLOGY

This research applies a quantitative approach with the nature of explanatory, descriptive research. Time series data from 2006 to 2020 regarding earning management, firm size, leverage, managerial ownership, and profitability of PT. Tiga Pilar Sejahtera Food Tbk collected secondarily through the website Indonesia Stock Exchange www.idx.co.id. The data analysis technique is carried out through OLS (Ordinary Least Square) estimation with the assistance of eviews software by using the following formula:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e.$$

RESULT AND DISCUSSION

Descriptive statistic test

Descriptive statistical tests were carried out to explain the minimum value, maximum value, mean, and standard deviation of the four independent variables, namely company size, leverage, managerial ownership, and profitability, as variables that affect earnings management at PT Tiga Pilar Sejahtera Food Tbk from 2006 to 2020. Descriptive statistical tables are used in this study to provide an overview and information regarding variable data as follows:

Table 1. Descriptive Statistic Test

Statistic Test	Earning Management	Firm Size	Leverage	Ownship Managerial	Profitability
Mean	0.000775	14.69297	0.958080	0.186986	-0.067647
Median	0.001097	14.49959	0.588251	0.147718	0.041248
Maximum	0.006260	16.04062	2.899874	0.568440	0.607168
Minimum	-0.008045	12.80472	0.474231	0.000093	-2.640992
Std. Dev.	0.003441	0.915666	0.822155	0.153687	0.739918
Observations	15	15	15	15	15

Source: Output Eviews 12, processed data

Based on the processing result, the descriptive statistics of the research variables are as follows:

The independent variable of firm size has a minimum value of 12,80, and the maximum value is 16,04. While the standard deviation value of the firm size is 0,92, and the mean score is 14,69. The standard deviation remains smaller than the mean score, indicating that the data deviation on firm size is relatively good. The average mean score, higher than the standard deviation score, indicates the data is well distributed.

The leverage independent variable with a minimum score of 0,47 and a maximum score of 2,90. While the leverage standard deviation score is 0,82 and the mean score is 0,96. Thus the standard deviation score is lower than the mean score, indicating that the deviation data on leverage is relatively good.



The mean score, higher than the standard deviation, shows that the data is well distributed.

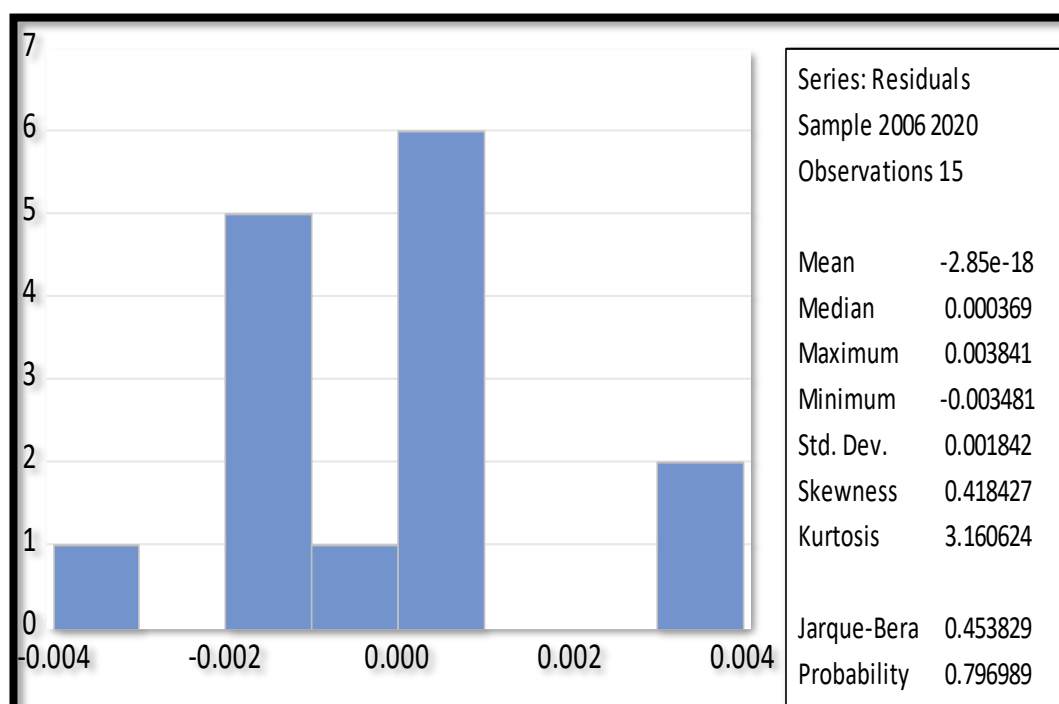
The independent variable of managerial ownership has a minimum score of 0,0001 and a maximum score of 0,57. While the standard deviation score of managerial ownership is 0,15 and the mean score is 0,18. Thus the standard deviation score is smaller than the mean score, indicating that the data deviation on managerial ownership is relatively good. The mean score, higher than the standard deviation, shows that the data is well distributed.

The independent variable of profitability with a minimum score of (-2,64) and the maximum score of 0,60. While the standard deviation of the profitability is 0,73 and the mean score is (-0,06). Thus, the standard deviation is higher than the mean score, indicating that the profitability data deviation could be better. The mean score, smaller than the standard deviation score, represents that the data is poorly distributed.

Classical Assumption Test

Normality Test

A normality test is used to determine whether, in regression model, the residual exhibit a normal distribution (Sugiono, 2019). The normality test used in this study is the histogram graph and the normal Regression Standardized Residual test with the condition that if the probability value > error rate is 0,05, then the data is normally distributed. The following graph demonstrates that the data is normally distributed:



Picture 2. Histogram Graph of Normality Test

(Source: Output Eviews 12, processed data)

The above graph describes the probability level of the histogram results as 0.79; the probability is higher than the error rate, which is 0,05 ($0.79 > 0,05$); thus, it can be concluded that the data is normally distributed or the normality assumption is fulfilled.

Multicollinearity Test

The test is used to determine whether several independent variables are correlated. A good regression model is independent of multicollinearity or no correlation among the independent variables. The conclusion criteria for the multicollinearity test can be seen from the correlational table if the correlational value $< 0,90$ indicates no multicollinearity in the proceeded data. To investigate the multicollinearity within regression can be seen in the following table:

Table 2. Multicollinearity Test

Variable	X1	X2	X3	X4
X1	1	-0.1896574...	-0.0606481...	0.05156329...
X2	-0.1896574...	1	-0.3430813...	-0.5356551...
X3	-0.0606481...	-0.3430813...	1	0.02205545...
X4	0.05156329...	-0.5356551...	0.02205545...	1

Source: Output Eviews 12 "reprocessed"

The table above illustrates the results of the correlation calculation. Each independent variable, namely X1 (firm size), X2 (*leverage*), X3 (managerial ownership), and X4 (profitability), has a correlational value $< 0,90$, which it can be concluded that there is no multicollinearity issue among the independent variables.

Heteroskedasticity Test

The heteroskedasticity test is used to determine whether there is an inequality of variance from the residual observation to another using the Glejser test (Sugiono, 2019). If the significance value between independent variables and residual is more than 0,05, then there is no heteroscedasticity. A good regression model is if there is no heteroscedasticity. The results of the heteroscedasticity test of this study are as follows:

Table 3. Heteroskedasticity Test

Heteroskedasticity Test: Glejser			
Null hypothesis: Homokedasticity			
F-Statistic	2.074031	Prob. F (4.10)	0.1594
Obs*R-squared	6.801542	Prob. Chi-Squared (4)	0.1468
Scaled explained SS	4.812443	Prob. Chi-Squared (4)	0.3071

Source: Output Eviews 12 "reprocessed"

The above table indicates that the probability value of Obs *R-square is 0,1468; the figure is higher than the significant value of 0,05. It can be concluded that there is no heteroscedasticity in the regression model.

Autocorrelation Test

The test is used to determine whether there is a correlation between the regression method's confounding errors in period t and period t-1. If a correlational appears, the model experiences an autocorrelation problem (Sugiono, 2019). A good regression model is unrestricted to autocorrelation. One of the approaches to identifying it is using the *Breusch-Godfrey serial Correlation LM Test* with a different method. The basis for making this test decision is based on the Prob. Chi-Square value:

1. If the *Breusch-Godfrey serial Correlation LM Test* value is > 0,05, the regression has no autocorrelation problems.
2. If the *Breusch-Godfrey serial Correlation LM Test* value < 0,05, means that the regression model has autocorrelation problems

In the current study, the results of the autocorrelation test are described as follows:

Table 4. Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test: Nullhypothesis: No serial correlation at up to 2 lags			
F-Statistic	1.890120	Prob. F (2,7)	0.2206
Obs*R-squared	4.909293	Prob. Chi-Squared (2)	0.0859

Source: Output Eviews 12 "reprocessed"

The above values indicate that Prob. The chi-Square value of Obs*R-squared is 0,08. The value is higher than the determined significance value, which is 0,05. Thus, it can be concluded that there is no autocorrelation problem in the regression model.

Hypothesis Testing

Multiple Regression Analysis Test

The multiple regression analysis equation used in this study is as follows:

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

Where:

Y	= Earnings management
a	= Konstanta
b ₁ , b ₂ , b ₃ , b ₄	= Independent variable regression coefficient
X ₁	= Firm size
X ₂	= Leverage
X ₃	= Managerial ownership
X ₄	= Profitability

The results of multiple linear regression testing are described as follows:

Table 5. Multiple Regression Analysis Test

Dependent Variable: Earning Management Method: Least Squares Date: 04/10/22 Time: 21:04 Sample: 2006 2020 Included observations: 15				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.008301	0.010082	-0.823330	0.4295
Firm Size	0.000794	0.000657	1.209026	0.2545
Leverage	-0.002597	0.000939	-2.766454	0.0199
Ownership Managerial	-0.000134	0.004171	-0.032220	0.9749
Profitability	0.001172	0.000956	1.224845	0.2487
R-squared	0.713363	Mean dependent var		0.000775
Adjusted R-squared	0.598708	S.D. dependent var		0.003441
S.E. of regression	0.002180	Akaike in to criterion		-9.157783
Sum squared resid	0.000047	Schwarz criterion		-8.921767
Log likelihood	73.68338	Hannan-Quinn criter.		-9.160297
F-stitistic	6.221821	Durbin-Watson stat		2.869836
Prob (F-statistic)	0.008836			

Source: Output Eviews 12, Processed data

The above table represents values as follows:

$$Y = -0.008301 + 0.000794 X_1 - 0.002597 X_2 - 0.000134 X_3 + 0.001172 X_4$$

The constant value of the above equation is 0.008301. The figure shows that the company's earnings management, if the firm size variable (X₁), leverage (X₂), managerial ownership (X₃), and profitability (X₄), is zero.

- a. The X_1 coefficient (firm size) is 0.00079. If each added 1 % value of the firm size (assuming that other variables are constant), earnings management would increase by 0,00079. The coefficient of firm size is positive, indicating that the firm size has a direct relationship with earnings management (Y). The development of firm size contributes to the increase in earnings management.
- b. The coefficient X_2 (leverage) is 0,00260. If each additional 1% of leverage values (considering other variables are constant), the earnings management will decrease by -0,00260%. The leverage coefficient is negative, which means the leverage has a contra relation with earnings management (Y). If leverage increases, earnings management will decrease.
- c. The X_3 coefficient (managerial ownership) is -0,00013. If every 1% is added to the values of managerial ownership (assuming other variables are constant), then earnings management will decrease by -0,00013%. The coefficient of managerial ownership is negative, which means that managerial ownership contradicts earnings management (Y). The managerial ownership increases, then the earnings management will decrease.
- d. The X_4 coefficient (profitability) of 0,00117. If every 1% addition of profitability value (assuming other variables are constant), earning management will increase by 0,00117%. The probability coefficient is positive, meaning it has a linear relationship with earnings management (Y). As profitability increase, it will improve earnings management.

Determination Coefficient Test (R^2)

The determination coefficient (R^2) measures the extent of the model's ability to describe the variation of the independent variable. The coefficient determination value is between zero and one. A small R^2 value indicates that

the independent variables' ability to explain the dependent variables is considerably limited. The value of R² is as follows:

Table 6. Determination Coefficient Test (R²)

R-squared	0.713363
Adjusted R-squared	0.598708
S.E. of regression	0.002180
Sum squared resid	0.000047
Log likelihood	73.68338
F-statistic	6.221821
Prob (F-statistic)	0.008836

Source: Output Eviews 12, Processed data

The table above shows that the adjusted R square (R²) value is 0.713. It indicates that 71,3% of earnings management is influenced by four variables: firm size, leverage, managerial ownership, and profitability. In comparison, the remaining 28,7% is described by other variables and not examined in the current research.

Partial Test (Uji t)

The test is conducted to analyze an independent variable with a dependent variable individually; thus, the probability value used to analyze the hypothesis is the T-test to determine the probability value. The decision-making requirement is that if the probability value \leq a significant level of 0.05 (Sig. \leq 0.05), then H₀ is rejected (Ahyar et al., 2020). To find out the firm's size, leverage, managerial ownership, and profitability on earnings management they can be seen from the following table:

Table 7. Results of Partial Test (Uji t)

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.008301	0.010082	-0.823330	0.4295
Firm Size	0.000794	0.000657	1.209026	0.2545
Leverage	-0.002597	0.000939	-2.766454	0.0199
Ownership Managerial	-0.000134	0.004171	-0.032220	0.9749
Profitability	0.001172	0.000956	1.224845	0.2487
Sample: 2006 2020				
Included observations: 15				

Source: Output Eviews 12, processed data

The above data describes:

1. The effect of firm size on earnings management

Based on the table above, the t-count value of firm size (X_1) is 1.209026, and the probability is $0,2545 > 0,05$. Based on decision-making criteria, it can be concluded that H_0 is accepted and H_a is rejected; this shows that company size has no significant effect on earnings management.

2. The effect of leverage on earnings management

According to the above table, the t-value for leverage (X_2) is -2.766454, and the probability value is $0,0199 < 0,05$. Based on the decision-making criteria, it can be concluded that H_a is accepted; this shows that leverage significantly negatively influences earnings management.

3. The influence of managerial ownership on earnings management.

Based on the table above, the t-value for calculating managerial ownership (X_3) is -0.032220, and the probability value is $0,9749 > 0,05$. Based on the decision-making criteria, it can be concluded that H_0 is accepted; this indicates that managerial ownership has no significant effect on earnings management.

4. The influence of profitability on earnings management.

Based on the table above, the t-value for calculating profitability (X_4) is 1.224845, and the prob value is $0,2487 > 0,05$. According to the decision-making criteria, it can be concluded that H_0 is accepted; this indicates that profitability has no significant influence on earnings management.

Simultaneous Test (F)

The F test is used to determine whether the independent variable simultaneously, including firm size, leverage, managerial ownership, and profitability in the regression model, influences the dependent variable or not,

which is earnings management. The decision-making condition is that if the value of Sig. ≤ 0.05 , then H_0 is rejected, and if H_0 is accepted, Sig. > 0.05 , the H_0 is accepted (Ahyar et al., 2020). The F test values are described in the following table:

Table 8. Simultaneous Test Result (F)

R-squared	0.713363
Adjusted R-squared	0.598708
S.E. of regression	0.002180
Sum squared resid	0.000047
Log likelihood	73.68338
F-stitistic	6.221821
Prob (F-statistic)	0.008836

Source: Output Eviews 12, processed data

Based on the results of the F test in the above table, it shows that the F calculation value is 6.22 and F_{table} is 3.48, the F_{count} is higher than F_{table} ($6.22 > 3.48$), and the Prob (F-Statistic) value is 0,008 lower than 0,05 ($0,008 < 0,05$) thus it can be concluded that the hypothesis is accepted, the independent variables (firm's size, leverage, managerial ownership, and profitability) have a significant positive influence simultaneously on the dependent variables (earnings management).

Analysis of Firm Size Influence on Earnings Management of PT. Tiga Pilar Sejahtera Food Tbk (AISA) from 2006 to 2020 Period

The test result indicates that firm size does not influence earnings management. It is based on the partial test result, which shows insignificant numbers, where the probability variable 0,2545 is higher than 0,05. It means there is no significant influence between firm size and earnings management. Even though it has high or low total assets, the company does not attempt to manage earnings. It occurs because every company has a similar interest in performing better before investors and has a similar motive in creating profits for both small and large companies. Earnings management is also commonly occurred during weak internal company control. The tendency of earnings

management executed by PT. Tiga Pilar Sejahtera is not affected by the number of assets the company owns. Thus, the point that must be considered is that these efforts are carried out normally to maintain their legality and validity.

The result of this research supports the findings of research carried out by Yusrilandari et al. (2016), Pratama (2016), Gunawan et al. (2015), Pradipta (2019), and Anggraeni and Hadiprajitno who found that the firm size has no significant influence on earnings management.

Analaysis of Leverage influence on Earnings Management PT. Tiga Pilar Sejahtera Food Tbk (AISA) from 2006 to 2020 Period

The partial test calculation result shows that t-count leverage (X_2) is 2,766454, and the Prob value is 0,0199 < 0,05. It inferred that leverage influence negatively on earnings management. It means that the higher level of leverage of a company, the lower the level of earnings management. If the level of liability is high, it contributes to difficulties for the company management to predict the company's progress in the future. The higher the debt a company possesses, the stricter the supervision conducted by the creditors. The supervision and the information presented about the financial reports are more informative and of better quality. Thus, the management's flexibility to carry out earnings management decreases, and the management needs to be more motivated to practice earnings management.

The finding of this study does not support the agency theory constructed by Jensen and Meckling, as cited in Purnama, that there is an agency correlation between managers and creditors (*debt to equity hypothesis*) where companies that have a high leverage ratio, the company manager tend to use accounting method to increase profit to develop company performance with the purpose that the creditors trust the company performance. Thus, the information may convince the creditors that debtors can pay their debts to creditors (Purnama: 2017, 10)



The finding of this research supports the research conducted by Pratama (2016), Firnanti (2017), Sari and Khafid (2020), and Astari and Suryanawa, who found that leverage significantly influences earnings management. Sari and Khafid mention that a high negative coefficient of leverage will encourage creditors to provide high supervision for high-risk companies (Sari & Khafid, 2020).

Analysis of Managerial Ownership Influence on Earnings Management PT. Tiga Pilar Sejahtera Food Tbk (AISA) from 2006 to 2020

Research findings regarding the influence of managerial ownership on earnings management at PT. Tiga Pilar Sejahtera Food Tbk (AISA) in the period of 2006 and 2020. The hypothesis testing shows that H_a is rejected. The result is proven by the level of significance 0,9749, which is higher than 0,05. Thus, managerial ownership does not influence the earnings management. It is due to the equality of interest of shareholders and managers, as managers who own shares in the company tend to create policies like those who are interested in developing company performance. Management's failure involves the capital's owner; the management decides to develop the process of reporting quality. The existence of share ownership by management potentially reduces earnings management as the management chooses accounting policies to reflect the company's economy rather than personal motives.

Result of this research supports agency theory which proposes that managerial ownership align the interest of management and shareholders so that the agency costs are reduced, and the company performs better. This finding is in line with the results of research conducted by Firnanti (2017), Pradipta (2019), Zakia et al. (2019), and Anggraeni and Hadiprajitno (2013), who claim that managerial ownership does not influence earnings management significantly.

Analysis of Profitability Influence on Earnings Management of PT. Tiga Pilar Sejahtera Food Tbk (AISA) from 2006 to 2020 Period

The research findings regarding the influence of profitability on earnings management at PT. Tiga Pilar Sejahtera Food Tbk (AISA) in the period of 2006 and 2020 shows that the T-count profitability (X_4) is 0,978297, and the prob value is 0,2487 > 0,05. Based on the decision-making criteria, it can be concluded that H_0 is accepted; this show that the probability has no significant influence on earnings management. It means that the higher or lower profitability will not affect earnings management.

The results of this study do not support the agency theory. Research conducted by Sari and Khafid (2020) suggest that the management should be motivated to achieve bonuses if they own good working performance. Both individuals or organizations can be motivated to take earnings management due to several aspects, including bonus, debt motivation, tax, stock sales, and director turnover motivations. Those potentially occur as the reality show that managers rarely act opportunistically to obtain positive working result before the company owners. Other similar research findings include research conducted by Sari and Khafid (2020), Agustina et al. (2018), Agustia and Suryani (2018), and Gunawan et al. (2015) state that profitability does not affect earnings management; this show that company with a high level of profitability will not perform earnings management (Agustia & Suryani, 2018). Even though the research result shows that profitability does not affect earnings management, overcoming the problem of misalignment of interest between principals and agents in the future can be carried out through good company management by implementing corporate governance. Corporate governance is a strategy to control opportunistic actions by management.



Analysis of Firms Size, Leverage, Managerial Ownership, and Profitability at PT. Tiga Pilar Sejahtera Food Tbk (AISA) from 2006 to 2020 Period

Results of the research based on the F test value in table 4.14 found that the F-count value is 4.57 and Ftable is 4.12; thus Fcount value is higher than the Ftable value ($4.57 > 4.12$), and the Prob value is (F-Statistic) 0,039 lower than 0,05 ($0,039 < 0,05$) which means that H_a is accepted. The firm size variable, Leverage, managerial ownership, and profitability influence significantly and simultaneously earnings management. Based on the calculation, 71,3% of earnings management is influenced by four variables: firm size, Leverage, managerial ownership, and profitability, whereas the remaining 28,7% is at PT. Tiga Pilar Sejahtera Food Tbk is influenced by other variables not examined in this study.

CONCLUSIONS

Based on research objective that to find the significant influence among measured variabels by regression analysis, the research findings and discussion show that regression coefficient value of firm size indicates a positive correlation with earnings management. The larger the firm size, the higher motivation to perform earnings management. Whereas the result of research partially shows that firm size has no significant influence on earnings management. Meanwhile, the regression coefficient of the leverage and managerial ownership negatively correlate with earnings management. As a result, the higher leverage and managerial ownership, the less motivation to perform earnings management. In contrast, the coefficient regression of the profitability variable indicates a positive correlation with earnings management. Thus, the higher the profitability, the higher motivation to perform earnings management. At the same time, the results of a partial study show no significant influence of profitability on earnings management. Based on the result of the F test, simultaneously identified a positive and significant

influence on whole independent variables on earnings management at PT. Tiga Pilar Sejahtera Food Tbk (AISA) in 2006 and 2020 period.

Thus, the overall output of data processing and phenomena that occur at PT. Tiga Pilar Sejahtera Food Tbk illustrates that the intervention actions taken by management on financial reports through earnings management must be reconsidered for the level of legality and must be ensured that their implementation is in accordance with accounting principles. This is done in order to provide a clear figure of the performance and condition of the company so that the magnitude of the risk of failure in the future can be predicted and prevented.

Eventually, this research has limitations that are expected to be improved by other studies. This research only uses some of the determinants of earnings management from many other factors that also have a contribution such as institutional ownership, board of commissioners, auditor reputation, etc. In addition, the use of several research objects in the form of companies engaged in the same business sector is also recommended for further research in order to obtain a more comprehensive and representative view.

In the other hand, this research has implications for the company's management considerations in making decisions to carry out earnings management. This form of intervention is ideal as long as it is carried out in accordance with accounting principles. This must be ensured so that the company's economic picture remains visible and risk management can still be carried out.

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