

The Influence of Information Asymmetry, Profitability and Company Size on Earnings Management in Companies in the Goods and Consumption Industry Sector Listed on the Indonesian Stock Exchange for the 2016-2020 Period

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Abstract

This study aims to determine the effect of information asymmetry, profitability and company size on earnings management in companies listed on the Indonesia Stock Exchange for 2016-2020 period. Several previous studies on earnings management have shown different results. Therefore, other studies need to be conducted to re-test the theory of earnings management. The population of this study were 53 companies in the consumer goods industry sub-sector. The sampling method used is the purposive one, so that 22 sample companies are obtained for the five years of monitoring with 86 results (observations). Research data were obtained from sample companies downloaded from the Indonesia Stock Exchange website. The data analysis techniques used are descriptive statistical analysis and multiple regression analysis. The data analysis processes carried out first are descriptive statistics, classical assumption test, multiple regression analysis and then hypotheses testing. The results of this study partially show that only profitability has a significant effect on earnings management, while information asymmetry and company size have no effect on it. The results of this study simultaneously show that information asymmetry, profitability and company size have a significant effect on earnings management.

Key terms: information asymmetry, profitability, company size, earnings management

JEL Classification: D82, L25, G32

To cite this article: Magdalena Judika Br. Siringoringo, Jadongan Sijabat, *The Influence of Information Asymmetry, Profitability and Company Size on Earnings Management in Companies in the Goods and Consumption Industry Sector Listed on the Indonesian Stock Exchange for the 2016-2020 Period*, *CECCAR Business Review*, N° 1/2023, pp. 58-72, DOI: <http://dx.doi.org/10.37945/cbr.2023.01.07>

➔ Introduction

The financial report is a final recording process in a certain period that can reflect the condition of a company. Financial reports can also be used as tools to provide information needed by parties with an interest in the firm. In addition, financial reports are used as the main indicator to account for what has been done by the company's management with respect to the owner's resources.

The performance of a company can be assessed through its ability to maximize profit achievement. Management has a very important role in making the company's financial statements, so it can be concluded

that financial reports can be used as a medium to assess management performance. A financial report can be used as an assessment tool for internal and external parties of the firm by looking at the profit information contained in the financial statements. Besides that, the company's profit information can help owners and other parties who have an interest in assessing the strength of future profits.

Company management has full access to the preparation of financial statements, while external parties outside the company have limitations to obtain information about it. This gap in obtaining information is called *information asymmetry*. In addition, changes in company information have a considerable impact on net income, so that financial reports are often used as engineering targets by management to make the results of financial reports better than the actual situation. This action is known as the practice of *earnings management*, which is an effort made by the company management consciously and deliberately to increase or decrease profits in the process of preparing financial statements. In his book, Scott (2015) states that there are four patterns of earnings management, namely: *taking a bath*, *income minimization*, *income maximization*, *income smoothing*.

As we specified above, information asymmetry is a condition of information gaps between internal and external parties of the company. In this case, the company manager has more information in accessing financial reports, so that it can trigger the manager to take action according to his wishes. The more information a manager has compared to the information owned by shareholders, the greater is the opportunity for manager to carry out earnings management. The results of research conducted by Fitriyani & Rahmawati (2019) show that earnings management is influenced by information asymmetry, where information asymmetry partially has a positive and significant effect on earnings management.

Meanwhile, research by Hidayat *et al.* (2019) concluded that information asymmetry has no significant effect on corporate earnings management. Profitability is the ability of the company to generate profits in a certain period. The results of research by Cahyono & Widayawati (2019) state that profitability has a positive effect on earnings management. In contrast, the research conducted by Astuti (2017) shows that profitability partially has no significant effect on earnings management. Company size is a measure that can describe the size of a firm. The size can be measured by total assets, total sales, large company shares and so on. It can also be used as a factor that can affect company profits. Entities that have large assets are relatively more stable in presenting profits compared to the ones that have small assets. The results of research conducted by Pramudhita (2017) show that company size has a significant effect on earnings management. This can be interpreted like if the size of the company increases, earnings management will also increase and vice versa, if the size of the company decreases, earnings management will also decrease. In contrast, the research conducted by Astuti *et al.* (2017) shows that company size has no influence or negative effect on earnings management.

There are several phenomena that have occurred in Indonesia related to earnings management, one of which occurred in 2017 in the consumer goods industry sector companies listed on the Indonesia Stock Exchange (IDX) by PT Tiga Pilar Sejahtera Food Tbk (AISA). This happened because of the difference in information owned by PT Tiga Pilar Sejahtera Food Tbk (AISA) and its subsidiary, PT Indo Beras Unggul. This caused PT Indo Beras Unggul to be proven to be copying the rice business it manages. This caused PT Tiga Pilar Sejahtera Food Tbk (AISA) to experience financial difficulties starting from the difficulty of paying interest and principal on bonds, which led to default. In addition, PT Tiga Pilar Sejahtera Food Tbk (AISA) is also suspected of inflating funds of Rp 4 trillion in the 2017 financial statements. This was revealed in the PT Ernst & Young Indonesia (EY) Fact-Based Investigation Results report on AISA's new management dated March 12, 2019.

The alleged inflation is suspected to have occurred in the accounts receivable, inventory and fixed assets of the AISA Group. In addition to the Rp 4 trillion inflation, there were also findings of alleged revenue inflation of Rp 662 billion and other inflation of Rp 329 billion in the EBITDA (earnings before interest, tax, depreciation and amortization) of the issuer's food business entity. The flow of funds of Rp 1.78 trillion took place through various schemes from the AISA Group to parties allegedly affiliated with the old management, among others, using the disbursement of AISA Group loans from several banks, disbursement of time deposits, transfer of funds in bank accounts and financing of expenses of affiliated parties by the AISA Group.

Furthermore, it was also found that there were relationships and transactions with affiliated parties that did not use adequate disclosure mechanisms (disclosure) to relevant stakeholders. In addition to these findings, the fundamental thing from the results of the EY report is the existence of different financial records in internal data with the records used by financial auditors in the process of auditing the 2017 financial statements. Not to mention that EY based on new management information that AISA's old management made different bookkeeping for external purposes, for example for external audit purposes.

The case above is an example of earnings management practices carried out by a company with the aim of deceiving *stakeholders* who want to know the condition and performance of the firm. Earnings management actions are carried out so that the company's financial statements always look good, so that investors do not give a bad review and will be interested in investing in the company. So, it is necessary to educate investors to better understand what earnings management is, as well as various elements that can affect earnings management, so that investors do not take the wrong steps in carrying out their investment activities on the stock exchange.

The sub-sectors of goods and consumer goods companies include the food and beverage industry, the pharmaceutical and medicine industry, the cosmetics and household goods industry, the cigarette industry, the home appliance industry and other. Researchers decided to use the consumer goods industry sector companies because this is a sector that fulfills basic needs for the community, so that people's purchasing power for goods and consumption is in line with the population. The increase in population greatly affects people's purchasing power for goods and consumption. This causes competition in the consumer goods industry sector to be tighter. Based on the description above, the researchers are interested in conducting a study entitled *The Effect of Information Asymmetry, Profitability, and Company Size on Earnings Management in Goods and Consumer Industry Sector Companies Listed on the IDX for the 2016-2020 Period*. The research objective is to determine whether there is a relationship and influence between information asymmetry, profitability and company size on earnings management in the companies studied.

➤ Literature review and model development

■ Agency theory

Agency theory is a fundamental theory in business practice, which explains the relationship that occurs between the management of the company as an *agent* and the owner of the company as the *principal* or the party that gives the order.

Jensen & Meckling (1976), cited by researchers Cahyono & Widyawati (2019), state that the agency relationship is a contract involving two or more people, where one is referred to as a shareholder (*principal*) and the other party is referred to as management (*agent*). In other words, an agency relationship can be interpreted as a bond between one or more people in running a business, where the *principal* has the right to give orders to other parties called *agents* to carry out all activities on behalf of the *principal*.

In addition, the principal also authorizes the agent to make and determine an appropriate decision to run a business. The manager, as the party authorized by the principal for the company's activities and having the obligation to provide financial reports, will tend to prepare reports that benefit his utility and sacrifice the interests of the principal. A principal tends to always want to know all information related to company activities, including management activities in operating the funds invested in the company.

Through reports made by management as an agent, the principal can obtain the information needed, including in terms of assessing the performance of the company manager in a certain period. However, in practice, there tends to be fraudulent actions taken by agents in making reports. This is often used as a goal so that the accountability report presented to the principal looks good and benefits the principal and the agent's performance will look good.

To minimize fraud in this case, independent third-party assistance is needed, namely an auditor. An auditor is tasked with auditing the report and providing an opinion on the fairness of the financial statements that have

been prepared by the agent so that the financial statements presented can be recognized as correct and can be more trusted (*reliable*). In this case, an auditor functions as a monitor to oversee the agent's performance and ensure that the agent acts in accordance with the principal's will. This agency theory can also assist the auditor's work in understanding the problems that occur between the agent and the principal. Researchers Cahyono & Widyawati (2019) agency theory is divided into three types of assumptions of human nature, namely: humans are generally selfish (*self-interest*), humans have limited thinking power regarding future perceptions (*bounded rationality*), and humans avoid risk (*risk averse*).

Based on the assumption of human nature, managers, as humans, are likely to act based on *opportunistic* nature, namely prioritizing their personal interests. The relationship between agent and principal is generally based on trust in each other. So that in practice there is often a conflict between the agent and the principal caused by the mismatch of information provided by the agent to the principal. This causes the information received by the principal to often not match the actual state of the company, thus triggering agency conflicts. The mismatch of information provided by the agent to the principal causes an information gap or information *asymmetry* (*asymmetric information*), this condition often opening up opportunities for agents to manipulate financial statements and maximize profits for themselves.

One way that can be done to overcome agency conflicts is by submitting financial reports in a timely manner. In addition to information asymmetry, agent conflicts can also be caused by agency costs. These are costs borne by shareholders or principals due to differences in information between the principal and the agent's interests. Agency costs are divided into three, namely: *monitoring cost*, which is the cost incurred and borne by the principal to monitor the behaviour of the agent to measure, observe and control, *bonding cost*, which is to establish and comply with mechanisms that ensure that the agent acts in the interests of the principal, and *residual loss*, which is the sacrifice of reduced principal prosperity due to differences in agent and principal decisions.

■ Earnings management

According with Sulistyanto (2008) in Cahyono & Widyawati (2019), earnings management is defined as an attempt by company managers to intervene or influence information in financial reports with the aim of misleading stakeholders who want to know the company's performance and condition. In his book, Scott (2015) states that earnings management is an action in the process of preparing financial reporting so that it can increase or decrease accounting profit according to its wishes. Management, as company administrator, will know more information about the company's condition and future prospects than shareholders. Based on the above understanding, it can be concluded that earnings management is an action taken by managers in the process of preparing financial statements based on accounting standards to increase or decrease profits within reasonable limits in order to provide information related to the company's profits and losses to avoid stakeholders who want to know the results of the company's performance and condition. So that in the long run this can have a bad effect, disrupt and endanger the company.

■ Earnings management measurement

The formula for measuring earnings management is done by calculating *discretionary accruals*. Measurement of discretionary accrual as a proxy for earnings quality (earnings management) uses the *Modified Jones Model* (Pramudhita, 2017), as for the steps to calculate earnings management as follows:

Calculate *total accruals* using the formula:

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

Where:

TA_{it} – total accruals of company *i* in period *t*;

Nit – net income of company *i* in period *t*;

CFO_{it} – cash flow from operating activities of company *i* in period *t*.

■ Information asymmetry

Information asymmetry is a condition of the information gap between company managers and shareholders. In this case, managers have more information and are more aware of the company's prospects in the future than shareholders or *stakeholders*. Brigham and Houston (2001) in Cahyono & Widyawati (2019) information asymmetry or information inequality is a situation where managers have different information about the company's prospects than those owned by parties outside the firm. In his book, Sartono (2010) states that this information imbalance ultimately triggers a situation called information *asymmetry*, namely a condition when investors or shareholders (*stakeholders*) have different information from company managers where company managers have better information about the company's prospects. According to Scott (2015), there are two types of information asymmetry. Adverse selection is when managers and people inside the company know more about its condition and prospects than outside or external parties. And there may be facts that are not conveyed to the owner or principal of the firm. Moral hazard is an activity carried out by a manager that is not fully known by investors or shareholders and creditors, so that managers can take actions outside the knowledge of investors that violate the contract, which may actually be in norms and ethics which are less worth doing or are not worth doing.

■ Measurement of information asymmetry

The indicator used to measure the information asymmetry variable can be seen from the difference between the lowest purchase price proposed by the buyer and the highest selling price requested by the seller (Hartono, 2017). In this study, information asymmetry is measured using the *Bid-ask spread* theory of Malau & Parhusip (2016). *Bid-ask spread* theory is the difference between the highest purchase price at which a *broker/dealer* is willing to buy a stock and the selling price at which the *broker/dealer* is willing to sell the stock. The formula for measuring information asymmetry using Bid-ask spread is as follows:

$$SPREAD_{i,t} = \frac{ask_{i,t} - bid_{i,t}}{ask_{i,t} + bid_{i,t}/2} \times 100\%$$

Where:

SPREAD_{i,t} – bid-ask spread of company *i* on day *t*;

ask_{i,t} – the highest ask price of company's *i* stock on day *t* (December 31);

bid_{i,t} – the lowest bid (ask) price of company's *i* shares that occurred on day *t* (December 31).

■ Profitability

Profitability is a ratio used in measuring the ability of a company to generate a level of net profit in a certain period. Profitability is also a picture that can show the ability of a company to manage the level of sales of assets and shares to generate net profit after tax. This ratio can also provide a measure to assess the level of management effectiveness in a company. According with Cashmere (2017), the profitability ratio is „the ratio to assess the company's ability to seek profit. This ratio also provides a measure of the effectiveness of a company's management. This is indicated by the profit generated from sales and investment income. The use of this ratio shows the efficiency of the company”. According with Sartono (2010), profitability is the company's ability to earn profits in relation to sales, total assets and own capital. A high level of profitability illustrates the success of a company in managing the level of sales of assets and shares it owns to produce the desired level of profit. The higher the profitability value, the higher the quality of the profit generated, and vice versa. In addition, the level of profitability is one of the information used as a guide for investors to buy or sell shares in a company, so that the higher the level of profitability of the company will further affect the share price of the company, which in turn will also affect the stock price index, which is a reflection of the movement of stock prices on the stock exchange.

■ Profitability measurement

There are two ratios commonly used in calculating and measuring the profit generated, namely the *Return on Assets (ROA)* and *Return on Equity (ROE)* ratios. In this case, to measure the level of profitability, the researcher chose to use the *Return on Assets* ratio. The formula for measuring the profitability ratio is as follows:

$$\text{Profitability} = \frac{\text{Net profit after tax}}{\text{Total asset}}$$

■ **Company size**

Company size is a scale that can be used to measure the size of a firm. That can be measured using total assets, total sales, large company shares and so on. According to Boediono (2005) in Cahyono & Widyawati (2019), company size is a scale where the size of the firm can be classified in various ways, including: total assets, log size, stock market value and others. Companies that will be large receive greater attention from external parties, such as investors, creditors and the government (Pramudhita, 2017). Therefore, large entities are more careful in reporting their financial condition. Meanwhile, smaller ones tend to carry out earnings management by reporting higher profits to show satisfactory financial performance.

■ **Company size measurement**

Company size can be measured using the *natural logarithm* of total assets. The formula used is as follows:

$$\text{Company size} = \ln \times \text{Total asset}$$

Where:

ln – natural logarithm.

■ **Hypotheses development**

Hypotheses development is a fundamental concept that can be done to determine temporary conjectures that have not been proven and can be used to explain a fact from the research to be carried out. The hypotheses development of this research is as follows:

- ✓ H1: Information asymmetry has a positive effect on earnings management.
- ✓ H2: Profitability has a positive effect on earnings management.
- ✓ H3: Company size has a positive effect on earnings management.
- ✓ H4: Information asymmetry, profitability and company size have a positive effect on earnings management.

Based on the development of the hypotheses above and to complete the explanation of the hypotheses that has been described, the researcher can draw an empirical research model as follows:

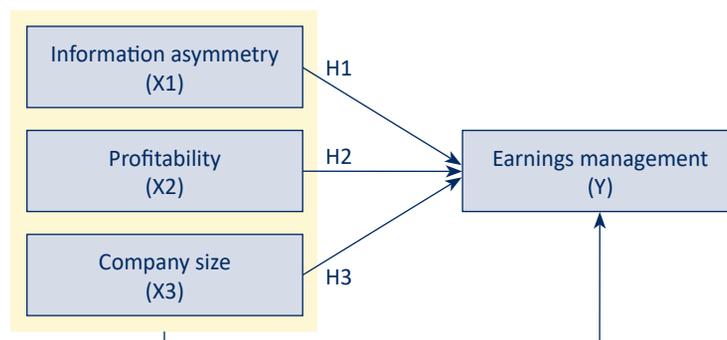


Figure 1. Empirical research model

Source: Researchers' projection.

■ **Research methods**

The data source used in this study is quantitative data sourced from the annual reports of companies in the goods and consumption industry sector listed on the Indonesia Stock Exchange. The data period used is 2016-2020. Based on the above income, the researchers concluded that the population to be used in this study

were all consumer goods industry sector companies listed on the Indonesia Stock Exchange, with a total of 53 entities. The criteria used in determining the sample are as follows: consumer goods industry sector companies listed on IDX during the 2016-2020 period, companies that have published *annual reports* that have been audited by independent auditors during the research period and companies that report finances expressed in rupiah, companies that did not experience losses during the research period, companies that display data and information used to analyse each variable proxy in the study during 2016-2020.

Based on data obtained from the Indonesia Stock Exchange, the consumer goods industry sector companies used as research samples were 23. Data analysis technique is a process in finding and compiling data that has been obtained into a form that is easier to be interpreted. Descriptive statistics provide an overview of the frequency distribution of research variables, maximum, minimum, average and standard deviation values. The testing technique uses multiple linear analysis, then classical assumption testing is carried out so that the results obtained are regression equations that have the *Best Linear Unbiased Estimator (BLUE)* properties. There are several assumptions that must be met so that the conclusions of the test are not biased, including normality test, multicollinearity test (for multiple linear regression), heteroscedasticity test and autocorrelation test. This study uses multiple linear regression analysis techniques (*Multiple Regression Analysis Model*) which can be formulated as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Where:

- Y – earnings management;
- α – constant;
- $\beta_1, \beta_2, \beta_3$ – regression coefficients;
- X1 – information asymmetry;
- X2 – profitability;
- X3 – company size;
- ϵ – standard error.

The above equation was then analysed with Statistical Package for the Social Sciences (SPSS) with a significance level of 5% ($\alpha = 0.05$).

Hypotheses testing is based on empirical facts obtained through data collection, through the process of testing the coefficient of determination (R²), partial test (t statistical test), simultaneous test (F statistical test).

➤ Results and discussion

Based on descriptive statistical analysis, the sample description is as follows:

Table 1. Descriptive statistics

	N	Minimum	Maximum	Mean	Standard deviation
X1_ Information asymmetry	110	0.00	22.10	3.3014	3.80744
X2_Profitability	110	0.00	0.92	0.1249	0.13475
X3_Company size	110	26.71	32.73	29.1047	1.49070
Y_Earnings management	110	-0.99	5.39	0.5800	1.05748
Valid N (listwise)	110				

Source: SPSS 26 management results (2022).

Based on the table above, it is known:

1. The minimum value of earnings management is -0.99 and the maximum value of earnings management is 5.39, while the average value is 0.58 and the standard deviation value is 1.05748.
2. The minimum value of information asymmetry is 0 and the maximum value of information asymmetry is 22.1, while the average value is 3.3014 and the standard deviation value is 3.80744.

3. The minimum value of profitability is 0 and the maximum value of profitability is 0.92, while the average value is 0.1249 and the standard deviation value is 0.13475.

4. The minimum value of company size is 26.71 and the maximum value of company size is 32.73, while the average value is 29.1047 and the standard deviation value is 1.49070.

■ **Classical assumption test**

✓ **Normality test results**

In this study, the normality test was carried out using *Kolmogorov-Smirnov*, *normal probability plot* and *histogram*, as follows:

Table 2. One-sample Kolmogorov-Smirnov test

Unstandardized residual		
N		110
Normal parameters ^{a,b}	Mean	0.0000000
	Standard deviation	1.18012956
Most extreme differences	Absolute	0.180
	Positive	0.180
	Negative	-0.147
Test statistic		0.180
Asymptotic significance (2-tailed)		0.000 ^c

a. Test distribution is normal.

b. Calculated from data.

c. Lilliefors significance correction.

Source: SPSS 26 management results (2022).

Based on Table 2, it can be seen that the test results of one-sample Kolmogorov-Smirnov significance value (2-tailed) 0.000 is smaller than 0.05, indicating that the data is not normally distributed. To change the residual value so that it is normally distributed, the author performs outlier transformation on extreme data so that the data is obtained as in Table 3 below:

Table 3. One-sample Kolmogorov-Smirnov test

Unstandardized residual		
N		86
Normal parameters ^{a,b}	Mean	0.0000000
	Standard deviation	0.50539644
Most extreme differences	Absolute	0.071
	Positive	0.047
	Negative	-0.071
Test statistic		0.071
Asymptotic significance (2-tailed)		0.200 ^{c,d}

a. Test distribution is normal.

b. Calculated from data.

c. Lilliefors significance correction.

d. This is a lower bound of the true significance.

Source: SPSS 26 management results (2022).

From the Table 3, it can be seen that the significance value is 0.200, where this figure is greater than 0.05, indicating that the data is normally distributed after outliers are made on extreme data, and this research is feasible to continue. For more clarity, the following histogram graphs and data plots that have been normally distributed are also attached, as follows:

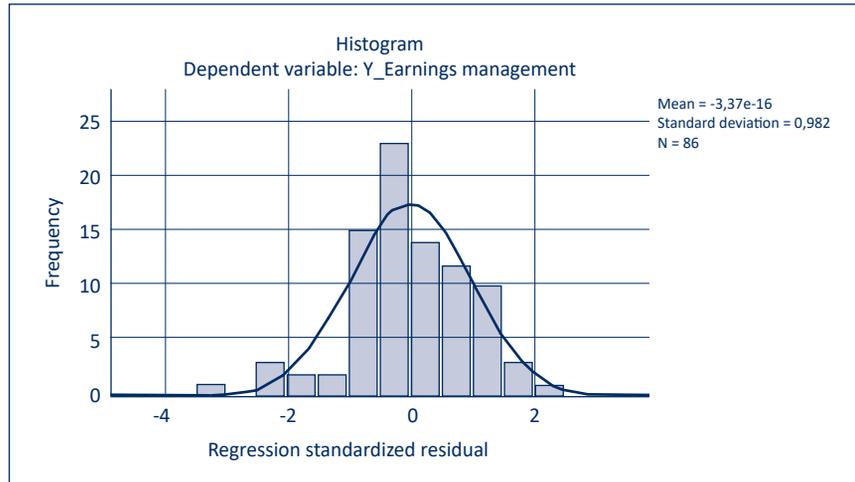


Figure 2. Histogram graph (after the data is transformed)

Source: SPSS 26 management results (2022).

Apart from looking at the histogram graph, to further confirm whether the data is normally distributed or not, it can be strengthened by the plot graph in Figure 3, as follows:

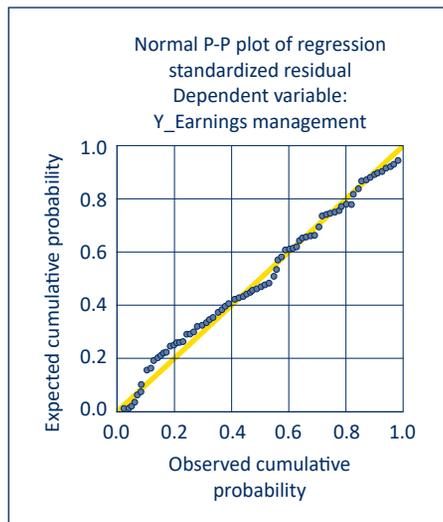


Figure 3. Normal P-plot graph (after the data is transformed)

Source: SPSS 26 management results (2022).

Thus, it can be concluded that the observed data values are normally distributed and can be continued with other classical tests.

✓ **Multicollinearity test**

Table 4. Multicollinearity test results coefficients*

Collinearity statistics			
Model		Tolerance	VIF
1	X1_Information asymmetry	0.962	1.039
	X2_Profitability	0.899	1.113
	X3_Company size	0.926	1.080

* Dependent variable: Y_Earnings management

Source: SPSS 26 management results (2022).

Based on Table 4, it can be seen that the variance inflation factor (VIF) value of each variable is < 10 and the tolerance value of each variable is > 0.1, so that there is no relationship or correlation between one independent variable and another independent variable. From the table above, it can be stated that the research data don't experience multicollinearity, so that the existing regression model is suitable for use in predicting earnings management and the following explanation: The tolerance value of information asymmetry is $0.962 > 0.1$ and the VIF value is $1.039 < 10$, so the information asymmetry variable is declared free from multicollinearity. The tolerance value of profitability is $0.899 > 0.1$ and the VIF value is $1.113 < 10$, so the profitability variable is declared free from multicollinearity. The tolerance value of company size is $0.926 > 0.1$ and the VIF value is $1.080 < 10$, so the company size variable is declared free from multicollinearity.

✓ **Autocorrelation test**

The autocorrelation test in this study used the Durbin-Watson test, the following being the results based on it.

Table 5. Autocorrelation test

Model summary*	
Model	Durbin-Watson
1	1.909

* Predictors: (Constant), X1_Information asymmetry, X2_Profitability, X3_Company size, dependent variable: Y_Earnings management

Source: SPSS 26 management results (2022).

Based on Table 5 above, it can be seen that the DW value is 1.909. This value will be compared with the value of the 5% significance table, the number of observation data (N) = 86 and the number of independent variables k = 3. The du value obtained is $du = 1.7221$ and the DW value is 1.909, therefore the DW value is greater than the upper limit (du) of 1.7221 and less than $4 - du: 4 - 1.7221 = 2.2779$. So it can be concluded that there is no autocorrelation.

✓ **Heteroscedasticity test**

To test the presence or absence of heteroscedasticity, it can be also used the Glejser test, if the independent variable statistically significantly affects the dependent variable, then there is an indication of heteroscedasticity. The results of the heteroscedasticity test can be seen in the *scatterplot* graph, as follows:

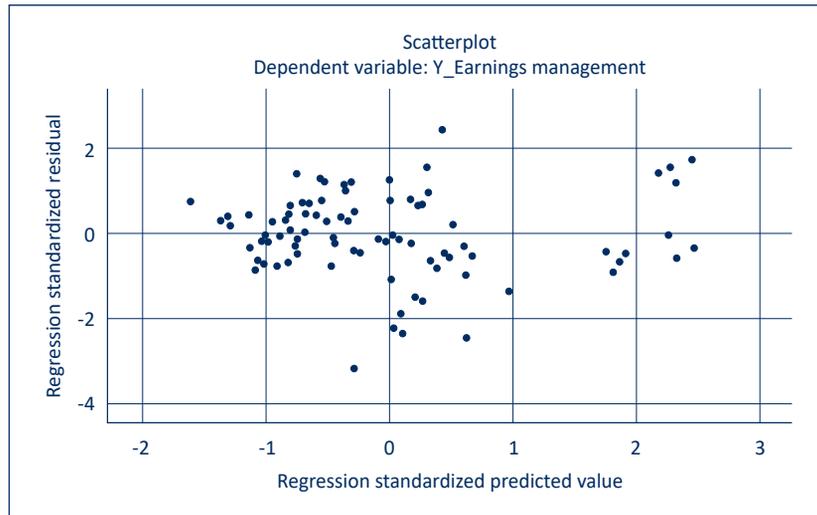


Figure 4. Heteroscedasticity test results

Source: SPSS 26 management results (2022).

Based on Figure 4 above, the scatterplot graph shows that the pattern points spread randomly, above and below the number 0 on the Y axis, so there is no heteroscedasticity.

■ **Multiple linear regression analysis**

The results of multiple linear regression test can be seen in the table below.

Table 6. Multiple linear regression test results

Model		Unstandardized coefficients		Standardized coefficients
		B	Standard error	Beta
1	(Constant)	-1.629	1.117	
	X1_ Information asymmetry	1.141	2.393	0.050
	X2_Profitability	1.587	0.552	0.314
	X3_Company size	0.036	0.039	0.100

* Dependent variable: Y_Earnings management

Source: SPSS 26 management results (2022).

From Table 6 above, the multiple linear regression analysis equation is obtained as follows:

$$Y = -1.629 + 1.141 (X1) + 1.587 (X2) + 0.036 (X3) + \epsilon$$

The constant value of -1.629 indicates that if the independent variable is 0 then earnings management is -1.629. X1 is the information asymmetry variable, which has a regression coefficient value of 1.141. This means that a 1% increase in the information asymmetry variable will increase earnings management by 1.141, with the assumption that other variables remain unchanged. X2 is the profitability variable, which has a regression coefficient value of 1.587. This means that a 1% increase in the profitability variable will increase earnings management by 1.587, assuming that other variables remain constant. X3 is the company size variable, which has a regression coefficient value of 0.036. This means that for a 1% increase in the company size variable, earnings management will increase by 0.036, assuming that other variables remain constant.

■ Hypotheses testing

In proving whether a hypothesis in the study has influence on the dependent variable, using tests such as the coefficient of determination (R²), t-test and F-test can be seen as follows: based on the results of data processing, the results of the coefficient of determination (R²) are obtained as in table below.

Table 7. Coefficient of determination

Model summary*			
Model	R	R-square	Adjusted R-square
1	0.672	0.422	0.451

* Predictors: (Constant), X1_Information asymmetry, X2_Profitability, X3_Company size, dependent variable: Y_Earnings management

Source: SPSS 26 management results (2022).

The table above shows that the value of adjusted R-square is 0.451 or 45.1%, which means that information asymmetry, profitability and company size simultaneously influence the quality of financial reporting by 45.1%, while the remaining 54.9% is influenced by other factors outside the variables of this study, that are not examined.

✓ Partial test (t statistical test)

Based on the results of data processing, the results of the *partial test* (t statistical test) are obtained as follows:

Table 8. Partial test results (t-test)

Model		Unstandardized coefficients		Standardized coefficients	t	Significance
		B	Standard error	Beta		
1	(Constant)	-1.629	1.117		-1.457	0.149
	X1_Information asymmetry	1.141	2.393	0.050	0.477	0.635
	X2_Profitability	1.587	0.552	0.314	2.876	0.005
	X3_Company size	0.036	0.039	0.100	0.926	0.357

* Dependent variable: Y_Earnings management

Source: SPSS 26 management results (2022).

Based on the results of partial testing (t-test) from Table 8, it can be concluded as follows:

1. The information asymmetry variable has $t_{count} < t_{tabel}$, where $0.477 < 1.663$, with a significance level of $0.635 > 0.05$, so it can be stated that information asymmetry has no effect on earnings management.
2. The profitability variable has $t_{count} > t_{tabel}$, where $2.876 > 1.663$, with a significance level of $0.005 < 0.05$, so it can be stated that profitability has a significant effect on earnings management.
3. The company size variable has $t_{count} < t_{tabel}$, where $0.926 < 1.663$, with a significance level of $0.357 > 0.05$, so it can be stated that company size has no effect on earnings management.

✓ Simultaneous significance test (F-test)

Based on the results of data processing, the results of the simultaneous significance test (F-test) are obtained as follows:

Table 9. Simultaneous test results (F-test)

ANOVA ^a						
	Model	Sum of squares	df	Mean square	F	Significance
1	Regression	2.991	3	0.997	3.766	0.014 ^b
	Residuals	21.711	82	0.265		
	Total	24.702	85			

a. Dependent variable: Y_Earnings management

b. Predictors: (Constant), X1_Information asymmetry, X2_Profitability, X3_Company size

Source: SPSS 26 management results (2022).

For the F-test criteria, a significance level of 5% is used with the F value for $F_{\text{tabel}} (n - k - 1) = 86 - 3 - 1 = 82$ and the result obtained for F_{tabel} is 2.716, being used as a criterion in decision making. The results of the table above show that the value of the earnings management variable from F_{count} is 3.766, while F_{tabel} is 2.716. This shows that $F_{\text{count}} > F_{\text{tabel}}$ and the significance value is $0.014 < 0.05$. It can be concluded that H_a is accepted and H_0 is rejected, which means that information asymmetry, profitability and company size have a significant effect on earnings management.

➤ Discussion and research findings

Based on the results of the data analysis, the conclusions are as follows:

■ The effect of information asymmetry on earnings management

From the partial test results, the information asymmetry variable has $t_{\text{count}} < t_{\text{tabel}}$, $0.477 < 1.663$, with a significance level of $0.635 > 0.05$, so it can be stated that **information asymmetry has no effect on earnings management**. The absence of influence of information asymmetry on earnings management is due to two possibilities. Firstly, there is strict internal supervision, so managers have no opportunity to take action to cover up existing information. Secondly, there is a possibility that the manager is also one of the investors. If this happens, the information asymmetry that occurs between managers and owners becomes less accurate. The results of this study are in line with research conducted by Hidayat *et al.* (2019), which concluded that information asymmetry has no significant effect on corporate earnings management.

■ The effect of profitability on earnings management

From the partial test results, the profitability variable has $t_{\text{count}} > t_{\text{tabel}}$, where $2.876 > 1.663$, with a significance level of $0.005 < 0.05$, so that it can be stated that **profitability has a significant effect on earnings management**. Profitability is the company's ability to generate profits and also is the net result of various policies and abilities. Profit is the most important factor so that an entity can survive. The greater the profitability ratio, the higher the company's effectiveness in generating profits for each asset invested. For investors, profit is an increase in economic value that will be shared through dividend distribution. The results of this study are in line with research conducted by Cahyono & Widyawati (2019), which states that profitability has a positive effect on earnings management.

■ The effect of company size on earnings management

From the partial test results, the company size variable has $t_{\text{count}} < t_{\text{tabel}}$, where $0.926 < 1.663$, with a significance level of $0.357 > 0.05$, so it can be stated that **company size has no effect on earnings management**. The lack of effect of company size is due to strict supervision from the government, analysts and investors who participate in running the company, which causes managers not to dare to practice earnings management. The tight supervision will prevent managers from practicing earnings management because it is likely to be known

by the government, analysts, and investors, so that this can damage the image and credibility of the company manager. So that managers of large and small companies do not dare to practice earnings management. This is in line with research conducted by Astuti *et al.* (2017), which shows that company size has no influence or negative effect on earnings management. Company size is not the only consideration for investors in making investment decisions, because there are still other factors that are more important in this purpose, such as the level of profit, the entity's business prospects in the future and so on. So, how big or small the company is does not affect the level of earnings management.

■ The effect of information asymmetry, profitability and company size on earnings management

From the results of simultaneous testing, $F_{count} > F_{tabel}$, namely $3.766 > 2.716$, with a significance level of $0.014 < 0.05$, meaning that **information asymmetry, profitability and company size have a significant effect on earnings management.**

➤ Research conclusions and implications

This study aims to determine the effect of information asymmetry, profitability and company size on earnings management in companies listed on the Indonesia Stock Exchange for 2016-2020 period. Several previous studies on earnings management have shown different results. Therefore, other studies need to be conducted to re-test the theory of earnings management. In agency theory, problems arise due to opportunistic behaviour or seeking personal interests from agents or company management by maximizing their own welfare as opposed to principals or shareholders. Therefore, the problem formulated in this study is whether the influence between information asymmetry, profitability and company size on earnings management exists.

Based on the partial test results of hypotheses referring to the formulation and objectives of this study, the following conclusions can be drawn:

- information asymmetry has no effect on earnings management;
- profitability has a significant effect on earnings management;
- company size has no effect on earnings management.

The results of simultaneous testing show that information asymmetry, profitability and company size have a significant effect on earnings management.

Therefore, based on the results of the analysis that the researchers conducted, information asymmetry has no effect on earnings management (Hypothesis 1). This has a positive impact on the company, because managers do not have enough opportunities to take action to cover up existing information, so that the information gap between managers and shareholders does not increase the opportunity for fraud against earnings management.

At the same time, profitability affects earnings management (Hypothesis 2). Besides the company's ability to generate profits, profitability is the net result of various policies and abilities. Profit is the most important factor so that a company can survive. The greater the profitability ratio, the higher the company's effectiveness in generating profits for each asset invested.

Third, the results of the analysis indicate that company size has no effect on earnings management (Hypothesis 3). Company size is not the only consideration for investors in making investment decisions, because there are still other factors that are more important in this purpose, such as the level of profit, the entity's business prospects in the future and so on. So, how big or small the company is does not affect the level of earnings management.

Lastly, information asymmetry, profitability and company size have a positive effect on earnings management (Hypothesis 4), which shows that there is still a possibility for a manager to carry out earnings management actions to take advantage for himself. Therefore, every manufacturing company, especially the industrial goods and consumer sector, continues to increase supervision of the results of the report, financially and periodically

check the internal information owned by the company to avoid any earnings management actions that will harm shareholders.

One of the limitations faced in this analysis is that the results of the coefficient of determination produced in this study with three independent variables, namely information asymmetry, profitability and company size on earnings management, have a predictive ability of 45.1%, while the remaining 54.9% is influenced by other factors. This shows that there still are other variables that can affect earnings management apart from those used by this work. Another limitation consists in the fact that researchers only conducted the survey for five years.

References

1. Astuti, A.Y., Nuraina, E., Wijaya, A.L. (2017), *The Effect of Company Size and Leverage on Earnings Management*, The 9th FIPA: Scientific Forum for Accounting Education, PGRI Madiun University, Vol. 5, No. 1, pp. 501-515, <http://prosiding.unipma.ac.id/index.php/FIPA/article/view/297>.
2. Astuti, P.W. (2017), *The Effect of Profitability, Company Size, Leverage, and Audit Quality on Earnings Management (Empirical Study of Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2012-2015 Period)*, University of Muhammadiyah Surakarta, <http://eprints.ums.ac.id/51736/11/NASKAH%20PUBLIKASI%20r.pdf>.
3. Cahyono, B., Widyawati, D. (2019), *The Influence of Information Asymmetry, Company Size, Profitability on Profit Management*, Journal of Accounting Science and Research, Vol. 8, No. 1, pp. 1-16, <http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/243>.
4. Cashmere (2017), *Financial Report Analysis*, Rajawali Press, Jakarta.
5. Fitriana, A.I. (2017), *The Effect of Information Asymmetry and Company Size on Earnings Management*, Balance Vocation Accounting Journal, Vol. 1, No. 2, <https://doi.org/10.31000/bvaj.v1i2.472>.
6. Fitriani, S., Rahmawati, R. (2019), *The Effect of Information Asymmetry, Company Size and Financial Leverage on Earnings Management Practices (Case Study: Food and Beverages Industry Sector Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX) in 2016-2018)*, Indonesian Management Research Journal, Vol. 1, No. 1, pp. 44-52, <https://jurnal.pascabangkinang.ac.id/index.php/jrmi/article/view/12>.
7. Ghozali, I. (2016), *Multivariate Analysis Application with SPSS Program*, Diponegoro University Publishing Agency, Semarang.
8. Hartono, J. (2017), *Portfolio Theory and Investment Analysis*, Eleventh Edition, BPFE, Yogyakarta.
9. Hidayat, A.A., Juanda, A., Jati, A.W. (2019), *The Effect of Information Asymmetry and Leverage on Earnings Management in Mining Companies Listed on the Indonesia Stock Exchange in 2016-2018*, Journal of the Academy of Accounting, Vol. 2, No. 2, pp. 145-154, <https://doi.org/10.22219/jaa.v2i2.10511>.
10. Malau, E., Parhusip, P. (2016), *The Effect of Information Asymmetry and Company Size on Earnings Management in Food and Beverages Companies that Go Public on the Indonesia Stock Exchange*, Journal of Accounting and Financial Research, Vol. 2, No. 1, pp. 83-106, <https://www.neliti.com/publications/282801/pengaruh-asimetri-informasi-dan-ukuran-perusahaan-terhadap-manajemen-laba-pada-p#cite>.
11. Pramudhita, Y.A. (2017), *The Effect of Company Size, Profitability, Leverage, and Institutional Ownership on Earnings Management (Empirical Study of Manufacturing Companies Listed on the IDX in 2012-2014)*, University of Muhammadiyah Surakarta, <http://eprints.ums.ac.id/51495/12/Naskah%20Publikasi.pdf>.
12. Sartono, A. (2010), *Financial Management Theory and Application*, Fourth Edition, BPFE Publisher, Yogyakarta.
13. Scott, W.R. (2015), *Financial Accounting Theory*, Seventh Edition, Pearson.
14. Sugiyono (2017), *Quantitative, Qualitative and R&D Research Methodology*, Alfabeta, Bandung.