

# **THE EFFECT OF LEVERAGE, PROFITABILITY AND INFORMATION ASYMMETRY ON EARNINGS MANAGEMENT**

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## **ABSTRACT**

*The purpose of this study was to determine whether leverage, net profit margin, and information asymmetry have an influence on earnings management in consumer non cyclical companies listed on the Indonesia Stock Exchange during 2019-2021. Sample were taken by purposive sampling method and had several predetermined criteria. The number of samples that were successfully taken were 61 consumer non cyclical companies. The data is processed using multiple regression analysis and EViews 12 software. Based on the result of the research that has been done, it is found that leverage has a negative effect on earnings management, while net profit margin and information asymmetry has no effect on earnings management.*

**Keywords:** *Earnings management, Leverage, Profitability, Information Asymmetry*

## **1. INTRODUCTION**

Management accountability for its performance will be reflected in the financial statement, in which will contain various important information for users such as information of financial position and financial performance. This makes the financial statement often be the base for users to make investment decisions. Number of parties that are involved in the use of financial statements cause it to be reliable, relevant, comparable, and understandable.

The preparation of financial statement is classified into two models, thus are cash basis and accrual basis. Based on the financial accounting standards, companies are required to use the accrual basis. Accrual basis is considered to be able to rectify the quality of financial statement because accrual basis is more relevant and actual in describing the actual conditions (Sebastian and Handojo, 2019). Therefore, the use of the accrual-based method will make it easier for management to regulate the amount of expected profit.

Earnings information is often used by both investors and users of reports to assess company performance. In addition, earnings information is also used as a benchmark and reference for shareholders to project returns and increase prosperity. However, it is unfortunate that the information in the financial statement is often not presented in accordance with the actual situation.

The Covid-19 pandemic that hit the world at the end of 2019, caused the government to set a policy of restricting activities that affected in company's productivity. The weakening in company's productivity will also cause the company's performance to decrease This will certainly be reflected in the financial statements causing the financial statements to look less good in the eyes of stakeholders.

The reflection of the company's performance in the financial statements and the manager's flexibility in choosing accounting methods causes managers to try to maximize their interests, one of which is by taking earnings management actions. There are two views in viewing earnings management practices that make this topic is interesting to be studied. The first view in, which argues that earnings management is the impact of management's discretion in choosing the applicable accounting method, makes earnings management a positive action and does not include fraud. According to (Metasari and Marlinah, 2021), management can be carried out using several methods that do not result in misleading information, such as the use of the pattern of taking a bath, income minimization, and income smoothing. The second view considers earnings management to be a negative practice because it can lead to opportunistic actions and lead to fraud, as was the case with PT Garuda Indonesia.

In 2018, PT Garuda Indonesia made a cooperation agreement with a value of US\$239.94 with PT Mahata Aero Teknologi. The company recorded this transaction as revenue, but in fact until the end of 2018 PT Mahata Aero Teknologi had not made a payment. For this transaction, Garuda Indonesia was able to record a net profit in 2018, in contrast to the previous year which recorded a loss of US\$ 216.58 million. The recording of these transactions is considered ambiguous because it is not in accordance with the Statement of Financial Standards.

The case of earnings management also occurred in 2019 carried out by PT Tiga Pilar Sejahtera Food Tbk (AISA). The findings of earnings management practices made the company restate its financial statements of 2017 where the total debt before being restated was Rp. 5.31 trillion and after being restated was 5.32 trillion, while net profit sales, which were previously recorded at Rp. 2.6 trillion, decreased to Rp. IDR 2.53 trillion. There are indications of the company's unfavorable financial condition causing the company to suffer losses so it is unable to cover the amount of debt. One of the efforts made by the management to cover up financial conditions is to practice earnings management. This is in accordance with research conducted by (Fandriani and Tunjung, 2019) which states that managers will try to increase company profits, one of which is by reducing the amount of debt and increasing income so that profits increase.

This study selected non-cyclical consumer sector companies listed on the Indonesia Stock Exchange as research subjects. The existence of economic uncertainty during the Covid-19 caused people's purchasing power to decline so that operational productivity also decreased. However, in the midst of economic uncertainty, non-cyclical consumer sector companies were not significantly affected. This makes the non-cyclical consumer sector the right choice to invest because it is considered to have low risk. The high interest of investors and the public in the non-cyclical consumer sector has made competition between companies even tighter. Management will try to show the best performance and maintain it so that earnings management practices are often found.

This study aims to analyze whether leverage, net profit margin, and information asymmetry affect earnings management in non-cyclical consumer sector companies listed on the Indonesia Stock Exchange (IDX) during 2019-2021. It is hoped that this research can provide benefits for companies regarding the factors that influence earnings management and for investors it is expected to provide information in considering and making investment decisions.

## **Related Work**

### **Agency Theory**

Agency theory was propounded by Jensen and Meckling in 1976 explained that in the company there will be a contract made between the manager (agent) and investor (principal) (Fitri et al., 2018), but the actions taken by the manager are considered not optimal due to differences in interests resulting in a conflict of interest (Heriyanto and Ahalik, 2022). Based on agency theory, the principal (investor) will employ the agent (management) to delegate authority in making decisions, to maximize returns and increase prosperity. The agency problem begins with an imbalance of information held by the agent and principal where the agent will have more information and faster than the principal. This imbalance of information can make it more difficult for the principal to supervise the activities of agents, thus providing a gap for management to take opportunistic actions (Anindya et al., 2020). Management performs various ways to maximize personal goals, one of which is by taking earnings management actions.

### **Signalling Theory**

This theory explains that due to information asymmetry it encourages companies to provide information to external parties (Sisdianto et al., 2019). The company will provide information in the form of signals to potential investors so that they can consider investment decisions and predict the company's prospects in the future. The signal is conveyed in several ways, such as income minimization, income maximization, and income smoothing, then the signal will be published in the published financial report. The company will as much as possible give a positive signal to investors through financial statements so that companies with good performance will try to maintain it while companies with poor financial performance will be motivated to improve the information, one of which is by practicing earnings management.

### **Earnings managements**

Earnings management is an action taken by management to influence the company's earnings report (Prasojo and Fatayati, 2018). There are several ways to measure earnings management including the Healy model (1985), DeAngelo (1896), the Jones model (1991), the industry model (1991), Dechow-Dichev (2002), the modified Jones model (1995), the Kothari model (2005), Stubben Model (2010), and New Approach Model (2011).

Earnings management calculation in this study will be proxied by discretionary accrual modified Jones model. According to research conducted by (Suyono, 2017) modified Jones model can improve test accuracy and minimize specification errors.

### **Leverage**

According to Moghaddam and Abbaspour (2017), leverage is defined as a measurement used to determine the extent to which assets for operational activities are financed by debt. The higher the leverage value indicates that the company's finances are increasingly dependent on third parties. This study uses the Debt-to-Asset Ratio (DAR) to measure the level of leverage, the calculation is done by comparing the amount of debt with the amount of assets.

Companies with a high DAR value indicate that the company is at high risk due to the possibility that the company cannot cover its debts.

#### Net Profit Margin

Net profit margin is a ratio that shows the company's ability to generate net profit (Metasari and Marlinah, 2021). Net profit margin is measured by comparing total sales with net income in the current year. The value of the net profit margin indicates the level of effectiveness of the company. Companies with high net profit margins indicate that the company's performance has been effective and will be reflected in the financial statements. Companies with high net profit margins will attract investors to invest in the company.

#### Asymmetric Information

Information asymmetry is defined as the imbalance of information owned by the agent and principal. The agent who has direct contact with the company's operational activities will have information that is not known to the principal. Information asymmetry is measured based on the bid-ask spread which will describe the risk of information discrepancies based on the highest and lowest prices of a company's shares. Companies with high asymmetry values show a lack of transparency so investors tend to avoid these risks.

#### *Leverage related with Earnings Management*

Leverage is an illustration of how much the company's assets are financed with debt. Based on research conducted by (Fitri et al., 2018) high debt causes the company's obligation to pay interest and principal debt to increase, this results in the company being under the supervision of creditors. The existence of supervision from creditors will limit management's space in carrying out earnings management actions. This statement is in line with agency theory which explains that companies must pay interest and loans to creditors at a predetermined time, this causes the company to be under the monitoring of other parties so that it will limit management activities (Elvaretta and Setijaningsih, 2022). This is in line with research conducted by (Savitri and Priantinah, 2019) and (Purnama and Taufiq, 2021). While different results are shown in research conducted by (Sufiyati and Christabelle, 2019) and (Purnama, 2017) where leverage is not able to affect earnings management.

#### Net Profit Margin related with Earnings Management

The company's performance is often reflected in the company's ability to generate profits which is reflected in the financial statements. This causes the company to meet investors' expectations of the profitability value and maintain the company's performance so that potential investors are interested in investing in the company, on the other hand managers will try to maximize bonuses. Managers in companies that use the bonus plan method tend to use accounting methods that can increase profits. The existence of differences in interests between investors and managers causes conflicts of interest, as explained in agency theory, conflicts of interest make management compelled to take earnings management actions. Based on research conducted by (Launa and Respati, 2017), it shows that net profit margin has a positive effect on earnings management but is best compared to research conducted by (Feronika et al., 2021) where net profit does not affect earnings management.

#### Information Asymmetric related with Earnings Management

Information asymmetry is one of the factors that lead to earnings management actions. The existence of information imbalances owned by managers and investors, where the information held by managers will be more and faster than the information owned by investors and the existence of differences in interests causes managers to take advantage of existing information gaps. The more information that is not known by investors, the greater the company's tendency to take earnings management actions. This is in line with the research conducted by (Ayu et al., 2017) which shows that information asymmetry has a positive effect on earnings management, but it is different from the results of research conducted by (Patriandari and Fitriana, 2019) whereas information asymmetry does not affect earnings management.

### Hypothesis Development

In carrying out activities, every company must expect going concern. In order to be a going concern, the company needs funds to fund the company's operational and administrative activities. There are two sources to meet the company's funding needs, the first source is funds generated by the company's own operations, the second source is funds obtained from debt. One of the measurements used to determine the company's debt level is leverage. This ratio will compare the amount of debt with assets owned by the company. Companies with a high level of leverage are considered to have dependence on outside parties so that they have the opportunity to be liquidated because operational activities are not able to cover the company's debt. Based on agency theory, companies with high levels of leverage will receive stricter supervision from external parties. This causes a decrease in management activities that affect conflicts of interest which is also reduced. If the conflict of interest is reduced, the probability of the company carrying out earnings management practices also decreases. This statement is in line with the results of research conducted by (Savitri and Priantinah, 2019) and (Dewi and Wirawati, 2019), leverage has a negative effect on earnings management. However, different results are shown in the research conducted (Saputri and Mulyati, 2020) and (Chandra and Djashan, 2019), where leverage has no effect on earnings management.

#### **H<sub>1</sub>: Leverage has a negative effect on Earnings Management.**

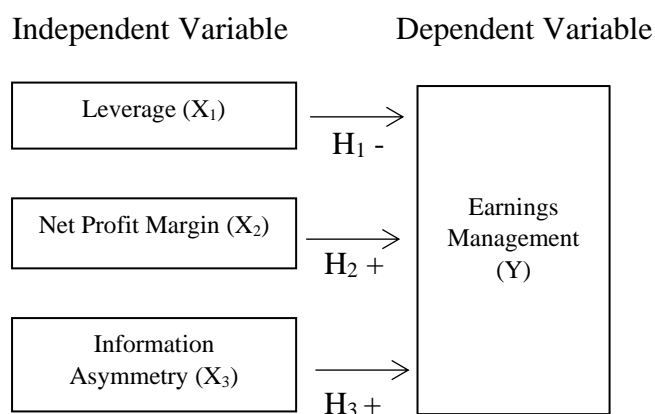
In accordance with agency theory, both the agent (management) and the principal (investor) have different interests, so that both parties will try to maximize personal utility. Managers will try to maximize bonuses by attracting potential investors to invest, one of which is by giving signals through financial reports. The information submitted by the agent to the principal will be interpreted first, whether the signal is a positive signal or a negative signal. A positive signal can be indicated by a high profitability value, it shows the company has been effective and is able to cover the company's debt so as to minimize the possibility of earnings management practices. On the other hand, companies with low profitability can be judged to be less able to generate profits, so it is very likely that companies will practice earnings management. In this study, profitability will be measured by Net Profit Margin (NPM). NPM calculation is done by comparing the amount of profit or loss for the year with sales. The choice of NPM as a profitability proxy because all company activities will affect and end up on company revenue which is reflected in total sales, making NPM considered the most effective ratio to analyze a company's earning power. The calculation of earning power will make it easier for investors to analyze and project the level of effectiveness of a company. This is in line with research conducted by (Nahar and Erawati, 2017), but in contrast to research conducted (Yando and Lubis, 2018) where net profit margin does not affect earnings management.

#### **H<sub>2</sub>: Profitability has a positive effect on Earnings Management.**

Based on agency theory, the practice of earnings management is motivated by the existence of information asymmetry. Managers as parties who are directly related to the company's operational activities result in more and faster information being held than information owned by investors. When the information held by investors is incomplete, it can lead to different perceptions from the reality on the ground. Supported by signal theory, managers will take advantage of information asymmetry to give positive signals to users of financial statement, one of which is by practicing earnings management. In this study, information asymmetry is proxied by the bid-ask spread. The interaction between market participants in buying and selling shares is influenced by information received in the form of public reports (directly) or through insider trading (indirectly) by increasing the spread. This description is in accordance with research conducted by (Yando and Lubis, 2018) and (Wijayanti and Mukti, 2018) which state that information asymmetry has a positive effect on earnings management. The more information that investors do not know, the more opportunities the company has in conducting earnings management. However, different results are shown in studies conducted by (Yuliza and Nurhayati, 2021) and (Putri and Machdar, 2017) where information asymmetry does not affect earnings management.

**H<sub>3</sub>: Information Asymmetry has a positive effect on Earnings Management.**

The framework in this research is described as below:



**Figure 1** Research Framework

## Our Contribution

The purpose of this study was to determine the effect of leverage, net profit margin and information asymmetry on earnings management in non-cyclical consumer sector companies listed on the Indonesia Stock Exchange. Samples were taken by purposive sampling method and based on several predetermined criteria.

The number of samples that were successfully taken were 61 non-cyclical consumer sector companies during the 2019-2021 period. The data was processed using multiple regression analysis and EViews 12 software. Based on the results of the research that has been done, it was found that net profit margin and information asymmetry had no effect on earnings management, while leverage had a negative effect on earnings management.

## Paper Structure

This research was conducted using quantitative methods with secondary data obtained from the Indonesia Stock Exchange for the period 2019-2021. The sample was selected based on the purposive sampling method on non-cyclical consumer sector companies with criteria 1) Non-cyclicals consumer sector companies listed on the Indonesia Stock Exchange for the 2019-2021 period; 2) Companies that did not IPO during 2019-2021; 3) Companies that publish complete and consistent 2019-2021 financial statements; 4) Companies whose bid-ask spreads can be calculated; and 5) Companies that list the number of independent commissioners. Based on these criteria, a total of 61 companies were obtained within 3 years and 183 data were collected.

## 2. METHODS

This study uses the best model selection test consisting of Chow and Hausman tests, classical assumption test consisting of multicollinearity test and heteroscedasticity test, and data analysis consisting of descriptive statistical analysis, multiple regression analysis, coefficient of determination test ( $R^2$ ), significance test overall (F-test), and t-test. Operating variables and measurements to be used:

**Table 1.** Operational Variables and Measurement

No	Variable	Indicator	Measurement Formula	Scale	Source
1	Earnings Management	Discretionary Accruals	$DA = Tait - NDA_{it}$	Ratio	Agustia & Suryani (2021)
2	Leverage	Debt-to-Asset Ratio	$DAR = \frac{total\ liabilities}{total\ assets}$	Ratio	Agustia & Suryani (2021)
3	Net Profit Margin	<i>Net Profit Margin</i>	$NPM = \frac{Net\ income}{Revenue}$	Ratio	Sihombing & Tanggor (2020)
4	Information Asymmetry	<i>Bid-ask SPREAD</i>	$Bid - ask\ SPREAD = \frac{(ask\ it - bid\ it)}{\{\frac{ask\ it + bid\ it}{2}\}}$	Ratio	Mustikawati & Cahyonowati (2015)

## 3. RESULT

### Descriptive Analysis Test

Descriptive statistical analysis tests were conducted to show the maximum, maximum, mean, standard deviation, and variance values used for data that has intervals. In this study, descriptive statistical tests were conducted on 61 companies over a period of three years so that 183 data were collected.

**Table 2.** Descriptive Analysis Test Result

Date: 11/02/22 Time: 21:42  
 Sample: 2019 2021

	DAR	NPM	SPREAD	DA
Mean	0.510586	0.085338	0.036858	5517.864
Median	0.487647	0.031785	0.027586	5439.115
Maximum	1.925340	8.352374	0.220979	20291.39
Minimum	0.006817	-2.466278	0.000000	10.62423
Std. Dev.	0.297631	0.825877	0.034746	3037.325
Skewness	1.893722	7.720199	1.688799	0.879875
Kurtosis	9.622902	74.50187	7.622486	6.087596
Jarque-Bera	443.8326	40800.79	249.9135	96.30350
Probability	0.000000	0.000000	0.000000	0.000000
Sum	93.43728	15.61680	6.745030	1009769.
Sum Sq. Dev.	16.12235	124.1374	0.219730	1.68E+09
Observations	183	183	183	183

Source: Data Processed with EViews 12 Software (2021)

Based on the table above, it can be concluded that there are 183 data samples that will be used in the study. The results of descriptive statistical analysis show a description of leverage as proxied by DAR (X1), profitability proxied by NPM (X2), information asymmetry proxied by bid-ask spread (X3), and earnings management proxied by discretionary accruals (Y) from 61 research samples were obtained. It can be seen the minimum, maximum, mean, and standard deviation of each variable.

First, the Debt-to-Asset Ratio (DAR) based on 183 data has a mean value of 0.510586, meaning that the average leverage measured using the debt to asset ratio (DAR) is 51%. From the average value obtained, it can be concluded that the average number of liabilities owned by the company is 51% of total assets with a standard deviation of 0.297631. Based on data processing, the maximum value of DAR is 1.925340 owned by Bakrie Sumatera Plantations Tbk (UNSP) in 2020 with total liabilities of Rp. 14,586,549,000,000 and total assets of Rp. 7,576,090,000,000 while the minimum value of DAR is 0.006817 which is owned by PT. Provident Investasi Bersama Tbk (PALM) in 2021 with total liabilities of IDR 192,674,823,000 and total assets of 4,043,604,072,000.

The second variable, Net Profit Margin (NPM) based on 183 data has a mean value of 0.085338, meaning that the average leverage measured using the net profit margin (NPM) is 8.5%. From the average value obtained, it can be concluded that the average net profit for the current year is 8.5% of total sales and the standard deviation value is 0.825877. Based on data processing, the maximum NPM value of 8.352374 which is owned by Mayora Indah Tbk (MYOR) in 2020 with a total profit for the year of Rp 2,098,168,514,645 and total sales of Rp 24,476,953,742,651, while the minimum value of NPM -2.466278 which owned by Bakrie Sumatera Plantations Tbk (UNSP) in 2019 with a total net loss for the year of Rp 4,893,138,000,000 and sales of Rp 1,984,017,000,000.

The third variable, bid-ask spread based on 183 data has a mean value of 0.036128 and a standard deviation of 0.036616. The maximum value of the spread is 0.220979 owned by Sekar Laut Tbk (SKLT) in 2020 with the highest offer value of Rp. 1,985 and the lowest ask value of Rp. 1,590 while the minimum spread value is 0.000000 which is owned by 21 companies in a period of 3 years.



The last variable, Discretionary Accrual (DA) based on 183 data has a mean value of 5517,864 with a standard deviation of 3037,325. Based on data processing, the maximum value of DA is 20,291.39 owned by Indofood CBP Sukses Makmur Tbk (ICBP) in 2020 while the minimum value of DA is 10,62423 owned by PT Provident Investasi Bersama Tbk (PALM) in 2019.

## Data Analysis Assumptions

### Chow Test

**Table 3.** Chow Test Result

Redundant Fixed Effects Tests Equation: FEM Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.634569	(60,119)	0.0000
Cross-section Chi-square	220.514916	60	0.0000

Source: Data Processed Using EViews 12 Software

Based on Table 3 above, the value of Prob. Cross Section Chi-Square is 0.0000. This shows the probability value is below the value of which is 0.05. So, it can be concluded that the best model from the Chow Test is the Fixed Effect Model.

### Hausman Test

**Table 4.** Hausman Test Results

Correlated Random Effects - Hausman Test Equation: REM Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.154029	3	0.0069

Source: Data Processed Using EViews 12 Software

Based on Table 4 above, the value of Prob. The random cross-section is 0.0069. This figure shows the probability value below the value of which is 0.05. So, it can be concluded that the best model of the Hausman test without moderation is the Fixed Effect Model.

## Classical Assumption Test

Before testing the hypothesis, the classical assumption test consists of multicollinearity and heteroscedasticity tests.

### Multicollinearity Test

The multicollinearity test was conducted to determine whether there was a correlation between the independent variables in this study, namely leverage (DAR), profitability (NPM), and information asymmetry (SPREAD) used in the regression model. The regression

model is said to be good if the correlation value is less than 0.8 then the regression model is considered free from multicollinearity.

**Table 5.** Multicollinearity Test Result

	DAR	NPM	SPREAD
DAR	1.000000	-0.256824	0.068422
NPM	-0.256824	1.000000	-0.040279
SPREAD	0.068422	-0.040279	1.000000

Source: Data Processed Using EViews 12 Software

The results of the multicollinearity test in Table 5 show that there is no correlation between each independent variable, namely leverage (DAR), profitability (ROA), and information asymmetry (SPREAD) which are above 0.8. So, it can be concluded that the regression model does not multicollinearity occurs.

### Heteroscedasticity Test

Heteroscedasticity test was carried out to test whether in the regression model there was a difference in variance from the residuals of one observation to another observation. In this study, the testing model was carried out using the glejser test. The regression model can be said to be free from heteroscedasticity if the probability of each independent variable shows a number greater than 0.05.

**Table 6.** Heteroscedasticity Test Result

Heteroskedasticity Test: Glejser			
Null hypothesis: Homoskedasticity			
F-statistic	0.480932	Prob. F(3,179)	0.6959
Obs*R-squared	1.463244	Prob. Chi-Square(3)	0.6908
Scaled explained SS	1.728829	Prob. Chi-Square(3)	0.6305

Source: Data Processed Using EViews 12 Software

Based on the results of the heteroscedasticity test conducted using the Glejser test in Table 6, the probability value of the three variables is 0.6906. This value is greater than 0.05, so it can be concluded that the regression model used in this study does not have symptoms of heteroscedasticity.

### Multiple Regression Analysis

After determining the best estimation model for the study and testing the classical assumption, the research was carried out by conducting a regression analysis test. Multiple regression analysis was conducted to examine the independent variables, namely leverage, net profit margin, and information asymmetry on earnings management.

The following is the regression equation carried out in the study:

$$DA = \alpha + \beta_1 \text{ DAR} + \beta_2 \text{ NPM} + \beta_3 \text{ SPREAD} + e$$

**Table 7.** Multiple Regression Analysis Result

Variable	Coefficient
C	7051.872
DAR	-2750.504
NPM	111.2545
SPREAD	-3774.827

Source: Data Processed Using EViews 12 Software

Based on the results of the regression equation testing presented in Table 7, it can be obtained the following regression equation model:

$$DA = 7051.872 - 2750.504 \text{ DAR} + 111.2545 \text{ NPM} - 3774.827 \text{ SPREAD}$$

From the regression equation model formed, it can be concluded that the constant value is 7051.872. This constant value means that when leverage (DAR), Net Profit Margin (NPM), and information asymmetry (SPREAD) are zero (0), earnings management (DA) will be worth 7051.872.

The regression coefficient value of the leverage ratio (DAR) is -2750.504. This means that if the leverage value increases by one unit and the value of other variables is considered constant, then the value of earnings management will decrease by 2750.504. Conversely, if the leverage value has decreased by one unit and the value of other variables is considered constant, then earnings management (DA) has increased by 2750.504 units. The regression coefficient value for the leverage variable shows a number that is negative, so it can be interpreted that leverage has a negative effect on earnings management.

The value of the regression coefficient on profitability (NPM) is 111.2545. This shows that if the value of profitability increases by one unit and the value of other variables is considered constant, then the value of earnings management will increase by 111.2545 units. On the other hand, if the value of profitability has decreased by one unit and the value of other variables is considered constant, then earnings management (DA) has also decreased by 111.2545 units. The regression coefficient value for the profitability variable shows a number that is positive so that it can be interpreted that profitability has a positive effect on earnings management.

The regression coefficient value of information asymmetry (SPREAD) is -3774.827. This means that if the value of the spread has increased by one unit and the value of other variables is considered constant, then the value of earnings management will decrease by 3774.827. Conversely, if the spread value has decreased by one unit and the value of other variables is considered constant, then earnings management (DA) increased by 3774.827 units. The regression coefficient value for the spread variable shows a negative value, so it can be interpreted that the spread has a negative effect on earnings management.

### **Coefficient of Determination Test ( $R^2$ )**

Testing the coefficient of determination is carried out to measure the level of ability of the independent variables contained in the regression model to explain the dependent variable.

Testing is done by looking at the adjusted R-squared value. If the value of  $R^2$  is close to 1, it means that the ability of the independent variable to explain the dependent variable is getting stronger, whereas if the value of  $R^2$  is close to zero (0) it means that the ability of the independent variable to explain the dependent variable is still limited.

**Table 8.** Coefficient of Determination Test Result

Cross-section fixed (dummy variables)			
R-squared	0.713719	Mean dependent var	5517.864
Adjusted R-squared	0.562159	S.D. dependent var	3037.325

Source: Data Processed Using EViews 12 Software

Based on the results of testing the coefficient of determination in table 8 shows the adjusted R-squared value of 0.562159. This means that the independent variables in the regression equation, namely leverage, profitability, and information asymmetry can explain 56.21% of the dependent variable, while 43.79% of the dependent variable can be explained by other variables not examined in this study.

### Overall Significance Test (F-Test)

The overall significance test was carried out with the aim of seeing whether all the independent variables, namely leverage, net profit margin, and information asymmetry in the regression equation, simultaneously affected the dependent variable, namely earnings management. This test was carried out with a 95% confidence level and a significance value of 5%. The test is done by looking at the probability F-statistics. If the probability value of the F-statistics is less than 0.05, it can be interpreted that the dependent variable simultaneously has an influence on earnings management.

**Table 9.** Overall Significance Test Result

Prob(F-statistic)	0.000000
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Source: Data Processed Using EViews 12 Software

Based on the results of the overall significance test of the regression equation shown in Table 9, the probability value of the F-statistics is 0.000000, where the value is smaller than 0.05 so that it can be concluded that the dependent variables, namely leverage, net profit margin, and information asymmetry simultaneously affect to earnings management.

### Partial Significance Test (t-Test)

The t test was conducted to partially test the effect of the independent variable on the dependent variable. The t-test was performed by comparing the probability values of each independent variable, with a 95% confidence level and a significance value of 5%. The hypothesis can be accepted if the probability value of the independent variable is less than 0.05, which means that the independent variable partially affects the dependent variable. The probability value of each variable is as follows:

**Table 10.** t-Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7051.872	686.0074	10.27959	0.0000
DAR	-2750.504	1249.113	-2.201966	0.0296
NPM	111.2545	288.8504	0.385163	0.7008
SPREAD	-3774.827	5216.423	-0.723643	0.4707

Source: Data Processed Using EViews 12 Software

Based on the results of the t-test in table 10, it shows that the Debt-to-Assets Ratio (DAR) has a probability value of 0.0296, where the value is  $< 0.05$  so that the first hypothesis is accepted and leverage has a negative effect on earnings management. These results are in line with research conducted by (Elvaretta dan Setijaningsih, 2022), but not in line with research conducted by (Astuti et al, 2017) whereas leverage has a positive effect on earnings management. Different results are shown by research conducted by (Purnama, 2017) where the results show that leverage has no effect on earnings management.

The probability of profitability formulated by net profit margin shows a value of 0.7008 where this value is  $> 0.05$ , meaning that the second hypothesis is rejected and the net profit margin has no effect on earnings management. This study is in line with the results of research conducted by (Sufiyati and Christabelle, 2019). However, different results are shown by research (Purnama and Taufiq, 2021) which shows that leverage has a positive effect on earnings management.

Based on the results of data processing, the probability value of information asymmetry reflected in the bid-ask spread shows the result 0.4707 where the number is  $> 0.05$ , based on these results, the third hypothesis is rejected and information asymmetry has no effect on earnings management. The results of this study are different results are shown by research conducted by (Ayu et al., 2017) which shows that information asymmetry has a positive effect on earnings management.

Based on the research that has been conducted to test the hypothesis of the effect of the independent variables, namely leverage, net profit margin, and information asymmetry on the dependent variable, namely earnings management, the following is a discussion of each hypothesis that has been tested:

**Table 11.** Hypothesis Test Result

Hypothesis	Test Result
H <sub>1</sub> : Leverage has a negative effect on Earnings Management.	Accepted
H <sub>2</sub> : Profitability has a positive effect on Earnings Management.	Rejected
H <sub>3</sub> : Information Asymmetry has a negative effect on Earnings Management.	Rejected

#### 4. CONCLUSION

Based on the results of data processing that has been carried out, it shows that the first independent variable, leverage has a negative effect on earnings management, meaning that the greater the amount of debt owned by the company, the tighter third party supervision of the company will be, this will reduce management activities in carrying out earnings management actions. Furthermore, the net profit margin variable, based on the results of NPM research has no effect on earnings management, this is because some companies do not only focus on earning profits, but emphasize sales quantity or cost efficiency (Feronika et al., 2021). Meanwhile, companies with high profitability values reflect good and effective performance in generating profits so that managers tend to ignore net profit margins in earnings management. The third dependent variable is the spread, based on the results of research that has been carried out, the spread has no effect on earnings management. There are two factors that allow information asymmetry not to affect earnings management. The first factor is due to strict internal control over the company so that managers do not have the opportunity to hide information from investors, the second factor can occur if the company's investors are elected as managers, this can reduce the information asymmetry gap between investors and management.

In this study, there are still some limitations, such as research that only uses three independent variables consisting of leverage, profitability, and information asymmetry so that the adjusted R-squared value still shows a value of 0.562159, which means that there are still 43.79% of other independent variables that affect profit management. In addition, the research was carried out with a fairly short time span, namely three years from 2019-2021. Further researchers are expected to use other variables that can influence earnings management practices and increase the time span of the study so that it will increase the benefits for potential investors and can be used as a source of more complete information in making investment decisions. As well as for the company is expected to provide information about the factors that can affect earnings management.

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