DETERMINANT MODEL OF PROFITABILITY AND REAL EARNINGS MANAGEMENT IN THE CORPORATE GOVERNANCE PERCEPTION INDEX (CGPI) WINNING COMPANIES

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IJMSSSR 2022
VOLUME 4
ISSUE 1 JANUARY - FEBRUARY **ISSN: 2582 - 0265**

Abstract: The purpose of this study is to examine the effect of liquidity on real earnings management; to examine the effect of leverage on real earnings management; to examine the effect of sales growth on real earnings management; and to examine the extent to which profitability can moderate the relationship between liquidity, leverage, and sales growth with real earnings management. The type of research used in this study is causal associative research (*causal associative research*). The population in this study is CGPI-winning manufacturing companies listed on the Indonesia Stock Exchange in 2017-2019. Sample selection by purposive sampling method. The analytical method used to test the hypothesis is *Moderated Regression Analysis*.

The results show that: 1) Liquidity has no effect on real earnings management in a negative direction; 2) Leverage affects real earnings management in a negative direction; 3) Sales growth has no effect on real earnings management in a positive direction; 4) Profitability is not able to moderate the relationship between liquidity and real earnings management; 5) Profitability can moderate the relationship between leverage and real earnings management, and 6) Profitability is not able to moderate the relationship between sales growth and real earnings management.

Keywords: Leverage, Liquidity, Real Earnings Management, Profitability, Sales Growth

INTRODUCTION

In recent decades, financial statements are often misused by management by making changes in the use of accounting methods used, so that it will affect the amount of profit displayed in the financial statements. This is often known as earnings management. Earnings management carried out by the company can be efficient (increase earnings informativeness in communicating private information) and can be opportunistic (management reports earnings opportunistically to maximize its interests) (Scott, 2011). If earnings management is opportunistic, then the earnings information can lead to wrong investment decisions for investors.

According to Sulistyanto (2011), earnings management seems to have become a corporate culture that is practiced by many companies in the world. This is because this activity is not only carried out in countries with unregulated business systems but is also carried out by companies in countries whose businesses have been regulated, such as the United States. Examples of several cases of accounting reporting scandals that are widely known include Enron, Merck, World Com, and the majority of other companies in the United States (Cornett, et al., 2009).

One example of a financial reporting scandal that occurred in Indonesia recently was PT. Toshiba Tbk. This company is estimated to mark up net profit in the 2014 financial statements. The company is one of the manufacturing sector companies in Indonesia. The manufacturing industry is the main support for industrial development in a country (BAPEPAM, 2002). Therefore, it is expected that manufacturing companies do not manage earnings so that the public, the state, and other parties can receive appropriate information and can assess the company's performance properly from financial reporting that is free from manipulation (Rahmayanti, 2012).
Earnings management is interesting to study because it can provide an overview of the behavior of managers in reporting their business activities in a certain period, namely the possibility of certain motivations being reported. Earnings management according to Scott (2011) is "The choice by a manager of accounting policies to achieve some specific objectives". This means that earnings management is a manager's decision to choose certain accounting policies that are considered to be able to achieve the desired goals, be it to increase profits or reduce

the level of reported losses.

The accrual basis provides a gap/opportunity for earnings management because in the matching process there are accrued and deferred stages and all recognition of financial statement elements cannot be separated from the basic assumptions of accruals, while accrual elements can occur based on management policy (discretionary). accruals) or non-policy management (non-discretionary accruals).

Gunny (2005) classifies earnings management into three categories, namely fraudulent accounting, accrual earnings management, and real earnings management. Of the three groups of earnings management above, real earnings management is the most difficult category to detect, this is because real earnings management is difficult to distinguish from optimal business decisions, while accrual earnings management is limited by generally accepted accounting principles as well as accounting principles. Fraud is very easy to detect because of the selection of recording methods that violate generally accepted accounting principles.

Many factors trigger earnings management in the company, including liquidity, leverage, and growth. Liquidity shows the company's ability to meet its short-term obligations. The higher the company's liquidity, the higher the company's ability to pay off its short-term debt. Otherwise, the company will not be able to pay off its short-term debt. In a study conducted by Dhea and Farida (2020), it is stated that liquidity hurts earnings management. However, the results of this study are not the same as Winingsih's research (2017) which states that liquidity does not affect earnings management.

Leverage is the ratio used to measure the extent to which the company's assets are financed with debt. Leverage is also alleged to affect earnings management because the greater the debt, the higher the demand for profits, this will motivate management to carry out earnings management. Agustia & Suryani (2018) found that leverage has a significant effect on earnings management, while Mariana, et al. (2016) found that leverage has no significant effect on income smoothing practices (earnings management).

Growth is a ratio to measure the company's ability to compete with other companies in the same industry, the important elements that must be seen are Sales, Net Profit, Earnings Per Share, Share Market Price, Dividend & Book Value of Shares. Sales growth affects earnings management because companies with high sales growth may be motivated to manipulate earnings in reporting their earnings, while companies with low sales growth tend to mislead earnings reports or by making profit changes. Annisa & Hapsoro's research (2017) finds that Growth has a significant and significant effect on earnings management, while Nahar & Hapsoro's research

The inconsistency of the results of previous studies encourages researchers to add profitability as a moderating variable of the relationship between liquidity, leverage, and growth with real earnings management, which later this moderating variable can strengthen or weaken the relationship between liquidity, leverage, and growth with real earnings management. Profitability shows the company's ability to earn profits from managing its assets during a certain period. The company's ability to earn a profit is the main indicator in assessing the company's performance. The higher the profitability of a company, the performance or achievements and the company's ability to generate profits also increase (Yatulhusna, 2015). A study conducted by Dhea and Farida (2020), stated that profitability has a positive effect on earnings management. However, the results of this study are not the same as research by Astuti (2017) which states that profitability does not affect earnings management.

Based on the description above, the authors are interested in conducting a study entitled "Determinant Model of Profitability and Real Earnings Management in the Corporate Governance Perception Index (CGPI) Winning Companies".

From the description of the research background above, it can be formulated the main issues that will be discussed in this study, namely: 1) Does liquidity affect real earnings management?; 2) Does leverage affect real earnings management?; 3) Does sales growth affect real earnings management?; and 4) Can profitability moderate the relationship between liquidity, leverage, and sales growth with real earnings management?.

LITERATURE REVIEW

Iinformation Asymmetry Theory

One of the various conditions that cause differences between agents and owners, in addition to agency problems, is information asymmetry, which results in a large opportunity for managers to do things that are beneficial to their interests. In addition, the condition of the company that can be seen in its development can also affect the occurrence of this information inequality. Nelson (2003 in Hasan, 2013) also suggests that several company conditions can cause information asymmetry conditions, namely companies that are very large, have geographical distribution, have diverse products, and require technology.

According to the Client (2002 in Hasan, 2013), some companies that carry out their business transactions are likely to have an advantage in terms of information compared to others. There are two types of information asymmetry that result in these advantages, namely adverse selection, and moral hazard.

Adverse selection is a type of information asymmetry that causes problems where the delivery of information from the company to outside investors is less relevant, because managers know more about the current condition of the company and its prospects in the future than investors, while in moral hazard, problems arise due to weak supervision of manager activities in running the company thereby encouraging these managers to provide biased and irrelevant information. As a result, it will be very difficult for shareholders and creditors to directly observe the level of seriousness of managers to take any action in their interests.

Agency theory

Jensen and Meckling (1976) stated that an agency relationship is a contract between the manager (agent) and the investor (principal). There is a conflict of interest between the owner and the agent due to the possibility that the agent acts not in the interests of the principal, thus triggering agency costs. Conflict in agency theory is usually caused by decision-makers who do not participate in taking risks as a result of decision-making errors. According to the decision-makers, the risk should be borne by the shareholders. This is what causes synchrony between the decision-makers (managers) and the shareholders. Conflicts between shareholders and company management can be minimized by:

Stakeholder Theory

According to Clarkson (1995) in Hasian (2017), stakeholders are divided into two groups, namely primary and secondary. Primary stakeholders are stakeholder groups who do not take part or participate in the operations of a company. Secondary stakeholders are groups of stakeholders who influence and are influenced by the company but are not involved and are not so important for the survival of the company.

Stakeholder theory is a theory that states that a company is an entity that does not only operate for its own sake, but must provide benefits to all its stakeholders because the survival of a company is supported by stakeholders (Ghazali and Chariri, 2007 in Hasian, 2017). . Shareholders, creditors, consumers, suppliers, government, society, analysts, and other parties are stakeholder groups that are considered by the company to disclose or not the information contained in the company's financial statements. All stakeholders have the right to obtain information about the company's activities.

Liquidity

According to Fahmi (2014), the liquidity ratio is the ability of a company to meet its short-term obligations promptly. For example, paying for electricity, PDAM water, employee salaries, technician salaries, overtime pay, telephone bills, and so on. Therefore, the liquidity ratio is often referred to as short-term liquidity. Current liabilities are payment obligations within one year or the normal operating cycle of a business. The availability of cash sources to meet these obligations comes from a cash or cash conversion from current assets.

To measure liquidity, the researcher uses the current ratio. The current ratio is the comparison between the total current assets and current liabilities (Munawir, 2005 in Bintara & Tanjung, 2019). A high CR indicates a good guarantee for short-term creditors in the sense that at any time the company can pay off its short-term financial obligations. However, a high CR also indicates that some working capital is not rotating or experiencing unemployment and will hurt the ability to earn profits/profitability (Bintara & Tanjung, 2019). The reduced ability of the company to earn profits will also cause a decrease in the return that will be obtained by investors. The following is the formula used to calculate the current ratio:

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

Leverage

Leverage is the use of fixed costs to increase profitability. When a lever (level) is used properly, the pressure applied at one point will be created or amplified into pressure or motion at another point. Leverage affects the level and variability of after-tax income which in turn affects the level of risk and return of the company as a whole. The greater the level of leverage means a high level of return uncertainty, but on the other hand, the amount of return given will be even greater (Van Horne et al., 2007).

According to Brigham and Joel (2010), the procedure used by analysts to review company debt is that they examine the balance sheet to determine the proportion of total funds represented by debt, and they review the income statement to see to what extent the fixed expenses can be covered by operating profit. The measure of leverage that will be used in this study is the ratio of total debt to total assets (debt ratio). The ratio of total debt to total assets is generally called the debt ratio. Formulated as follows:

$$Leverage = \frac{Total\ Liabilities}{Total\ Assets}$$

Growth

Fahmi (2014) explains that the growth ratio is a ratio that measures how much the company's ability to maintain its position in the industry and general economic development. According to Susanti (2006), the growth ratio is used to describe the company's ability to maintain its economic position amid economic growth and its business sector.

So from the above understanding, the growth ratio is a ratio that describes how much the company's growth and its ability to maintain its position in the industry.

The company's growth (growth) is the expectation desired by the company's internal parties, namely management and external parties, namely investors and creditors (Hanafi and Halim, 1996). According to Smith and Watts (1992), the company's growth opportunities are seen in investment opportunities which are proxied by various combinations of investment opportunity set values. Meanwhile, according to Sudarsi (2004) growth is the rate of profit growth as measured by the difference between the amount of profit and the amount of profit in the previous year.

In this study, the growth used is growth in sales. Formulated as follows:

$$Growth = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$$

Real Earnings Management

Earnings management is one of the factors that can reduce the credibility of financial statements, add to the bias in financial statements and interfere with users of financial statements who believe that the engineered profit figures are non-engineered. According to Scott (2015), "Earning management is the choice by a manager of accounting policies, or real actions affecting earnings to achieve some specific reported earnings objective". In

essence, earnings management is a manager's choice of accounting policies to achieve certain goals.

Earnings management is measured using real earnings management. According to Roychowdhury (2006), the definition of real earnings management is a deviation from the normal operating activities of the company which is motivated by management's desire to give wrong understanding to interested parties that certain financial reporting objectives have been achieved through the company's normal operating activities. Roychowdhury (2006) states that three methods can be used in earnings management practices. The methods are as follows:

a. Sales Manipulation

   A manipulation by buying the product itself in the desired period so that sales seem to increase then return it in the next period or it can also be given a discount or bonus in the current year but sales will return to normal after the discount or bonus does not apply.

b. Reducing Discretionary Expenditure

   Manipulating costs by delaying or reducing them. Delaying the recognition of costs by taking advantage of the accrual gap, which should not be accrued. Such as maintenance costs.

c. Overproduction

   Manipulation by increasing production excessively so that unit overhead costs are smaller, cost of goods sold is lower and operating profit is better. However, it results in the goods in the warehouse piling up.

Profitability

According to Fahmi (2014), profitability is a ratio that measures the effectiveness of management, which can be seen from the profit generated from the company's sales and investment.

To measure the profitability of researchers using return on assets (ROA). ROA is a ratio that measures the level of profitability of a company. ROA is used to determine the amount of net profit that can be obtained from the company's operations by using all of its wealth. The level of ROA depends on the management of company assets by management which describes the efficiency of the company's operations. The higher the ROA, the more efficient the company's operations and vice versa, the low ROA can be caused by the number of idle company assets, investment in too much inventory, excess paper money, fixed assets operating below normal, and others occur on the stock exchange (Bintara & Tanjung, 2019).

Based on Bank Indonesia Circular Letter No.13/24/DPNP dated October 25, 2011 (Hafidz and Safira, 2018). Return On Assets can be calculated by the formula:

$$ROA = \frac{Earning\ Before\ Tax}{Average\ Total\ Assets}$$

Previous Research

Previous studies that can support this research are as follows: Anhara (2015) with the title Analysis of Factors Influencing Earnings Management (Study on Islamic Banking Companies in Indonesia). The results of the study show that partial ownership of institutional, managerial ownership, audit committee, and several audit committee member meetings and significant influence on earnings management. Meanwhile, the expertise of the members of the audit committee, Sharia Supervisory Board, and company size have no effect and have no significant effect on earnings management.

Salihi & Jibril (2015) with the title The Effect of Board the Size and Audit Committee the Size on Earnings Management in Nigerian Consumer Industries Companies. The results show that the size of the audit committee has a negative and significant effect on earnings management, the results further indicate that a larger board is

inefficient to minimize the tendency of earnings management, therefore it is recommended that the audit committee be increased to minimize the possibility of earnings management.

Mariana et al., (2016) with the title The Effect of Good Corporate Governance, Leverage, and Company Size on Profit Management of Banks Listed on the IDX. The results showed that partially institutional ownership, independent board of commissioners, leverage had no effect on earnings management, but the size of the audit committee and firm size had an effect on earnings management. Simultaneously these five variables do not affect earnings management.

Annisa & Hapsoro (2017) with the title "The Effect of Audit Quality, Leverage, and Growth on Earnings Management Practices". The results of this study indicate that audit quality and growth have a positive and significant impact on earnings management, while leverage has a negative and significant impact on earnings management.

Agustia & Suryani (2018) in their research entitled "The Influence of Company Size, Company Age, Leverage, and Profitability on Earnings Management (Study on Mining Companies Listed on the Indonesia Stock Exchange 2014-2016 Period). The results showed that simultaneously Company Size, Company Age, Leverage, and Profitability had a significant effect on Earnings Management. Partially, firm size and profitability have no significant effect on earnings management, while firm age and leverage have a positive and significant effect on earnings management.

Chairunesia and Sulistiyani (2019) in their research entitled "The Effect of Profit Management on Corporate Value with Good Corporate Governance Mechanisms as Moderated Variables (Case Study in Property and Real Estate Companies Registered on the Indonesia Stock Exchange 2012-2017)". The results showed that Earnings Management has no significant effect on firm value with a positive regression coefficient direction. Simultaneously the four mechanisms of Good Corporate Governance, namely the Independent Board of Commissioners, Institutional Ownership, Managerial Ownership, and Audit Committee have a significant effect on Company Value. Partially the influence of four Good Corporate Governance mechanisms, namely the Independent Board of Commissioners, Institutional Ownership, Managerial Ownership, and Audit Committee on Company Value.
Tarmidi and Murwaningsari (2019) in their research entitled "The Influence of Earnings Management and Tax Planning on Firm Value with Audit Quality as Moderating Variable". The results showed that earnings management has a positive effect on firm value, where the company's activities in optimizing profits get a good investor response. Likewise with tax planning is based on the results of hypothesis testing to get the results that tax planning has a positive effect on firm value. Audit quality has a positive effect on firm value, where investors have a high level of confidence in company information carried out by qualified independent auditors. Audit quality also weakens the influence of earnings management on firm value, where a credible auditor in carrying out his duties can suppress earnings management activities. In its effect on tax planning, audit quality also weakens the effect of tax planning on firm value.

Frame of Thought

Based on the theoretical basis and previous studies, the researchers developed a research framework that was tested as shown in the following figure:

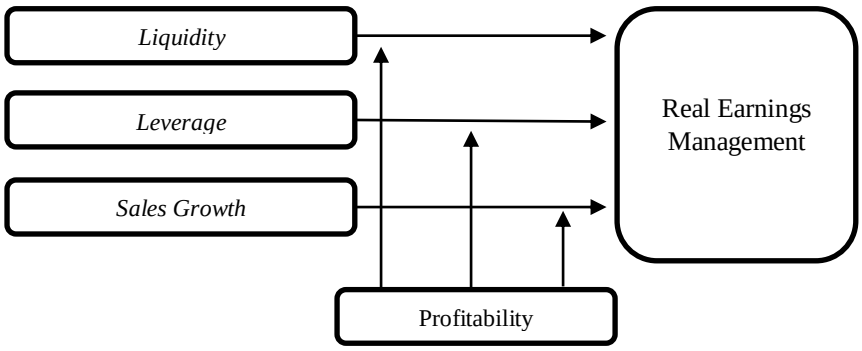

Figure 1.1 Framework of Thought

Hypothesis

The research hypothesis proposed is as follows:

Ha1 = Liquidity effect on real earnings management
Ha2 = *Leverage* effect on real earnings management
Ha3 = *Sales* Growth affects real earnings management
Ha4 = Profitability can moderate the relationship between liquidity and real earnings management
Ha5 = Profitability can moderate the relationship between leverage and real earnings management
Ha6 = Profitability can moderate the relationship between sales growth and real earnings management

RESEARCH METHOD

Types of research

The research used in this research is causal associative research. According to Sanusi (2011), associative-causal is research that seeks a relationship between two or more variables. The purpose of associative research is to find the relationship between one variable and another.

Variable Operational Definition

Operational research variables on the Determinant Model of Profitability and Real Earnings Management in Companies that Receive the Corporate Governance Perception Index (CGPI) can be summarized in the following table:

Table 1.1 Operationalization of Variables

Variable Type	Operational Definition	Measurement	Scale
Dependent			
Real Earnings Management	A deviation from the company's normal operating activities motivated by management's desire to misunderstand interested parties that certain financial reporting objectives have been achieved through the company's normal operating activities. (Roychowdhury, 2006)	B_CFO) - (AB_PROD) + (AB_DISEXP)	Ratio
Independent			
Liquidity	The ratio used to measure the company's ability to meet short-term obligations that must be met (Fahmi, 2014)	$\frac{Current\ Asset}{Current\ Liabilit}$	Ratio
Leverage	A tool to measure how much the company depends on creditors in financing the company's assets (Sari, 2012)	$\frac{Total\ Liabilities}{Total\ Assets}$	Ratio
Sales Growth	A ratio that measures how much the company's ability t maintain its position in the industry and general economic development (Fahmi, 2014)	$\frac{Sales_t - Sales_{t-}}{Sales_{t-1}}$	Ratio
Moderator			
Profitability	A ratio that measures management effectiveness can be seen from the profit generated on the company's sales and investment (Fahmi, 2014)	$\frac{Earning\ Before}{Average\ Total\ A}$	Ratio

Data Types and Sources

The data collected in this study is in the form of quantitative data, namely data that is measured on a numerical scale. The data used in this research is secondary data. Secondary data is data received by researchers indirectly. Secondary data in this study is in the form of annual financial reports produced by companies registered as

Participants in the Corporate Governance Perception Index (CGPI) during 2017-2019. This financial report was obtained from the IDX website (www.idx.co.id) and the company's website. Meanwhile, the Corporate Governance Index scores were obtained through the IICD website (www.iicd.org), SWA Digital Magazine (www.swa.co.id), online research institutes (www.mitrariset.com), and several company annual reports featuring Corporate Governance. Governance Index.

Population and Research Sample

The population of this study is manufacturing companies that have achieved CGPI listed on the Indonesia Stock Exchange in 2017-2019, which are 49 companies.

From the existing population, a certain number of samples were taken using a purposive random sampling technique, namely a sampling technique with certain considerations. In this study the considerations used are:

1 CGPI-winning manufacturing company listed on the Indonesia Stock Exchange in 2017-2019.
2 CGPI-winning manufacturing company that uses the rupiah value unit in its financial statements.
3 A CGPI-winning manufacturing company that earned a net profit for 3 consecutive years from 2017-2019.

According to the criteria above, the number of sample companies used is 16 companies for 3 periods, namely 2017, 2018, and 2019. So the total sample size is 16 companies x 3 periods = 48 data that will be used in this study.

Data collection technique

The data collection method in this research is the literature study method and the documentation method. The literature study method is by conducting a literature review and reviewing various literature such as various journals, articles, and other literature books that support this research process. While the documentation method is the process of collecting data by recording documents related to this research.

Analysis Method

Descriptive statistics

Descriptive statistics in this study are used to describe the character of the research variables by using a frequency distribution table that shows the model number, score range, and standard deviation.

Classic assumption test

This research was conducted by simple regression analysis. The use of simple regression analysis must be free from classical assumption testing. For this reason, before conducting a simple regression analysis, it is necessary to test the classical assumptions first. Classical assumption test is done by using normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

Hypothesis testing

In this study, the authors used three independent variables, one dependent variable, and one moderating variable. The analytical method used to test the hypothesis is the interaction test often referred to as Moderated Regression Analysis (MRA), which is a special application of linear multiple regression where the regression equation contains an interaction element (multiplication of two or more independent variables) (Ghozali, 2011). The regression equation is as follows:

$Y = +_1X1 + 2X2 + 3X3 + 4Z +$
$Y = +_1X1 + 2X2 + 3Z + 4X1*Z + 5X2*Z + 6X3*Z +$

Where:

Y = Real Earnings Management
X1 = Liquidity
X2 = Leverage
X3 = Sales Growth
Z = Profitability
β = Constant

In this study, a significance level (α) of 0.05 or 5% was used. This multiple regression analysis was carried out with the help of the SPSS (Statistical Package For Social Sciences) Release 25.0 for Windows program so that the coefficient of determination value, the value of the F statistic, and the value of the t statistic were used for hypothesis testing.

RESEARCH RESULTS AND DISCUSSION

Description of Research Data

Following are the results of descriptive statistics on the research variables as follows:

Table 1.2 Descriptive Statistical Results

Variable	N	Min	Max	mean	Std. Deviation
Liquidity	48	0.28	4.66	1.71	1.057
Leverage	48	0.15	0.77	0.49	0.184
Sales Growth	48	-0.34	1.30	0.14	0.277
Profitability	48	0.02	0.71	0.18	0.179
Real Earnings Management	48	-0.40	0.58	-0.002	0.189

Source: Primary Data Processed (2021)

Based on table 1.2 above, descriptive statistics can be presented about the research variables as follows: The average value of liquidity as measured by the current ratio is 1.71%, with a standard deviation value of 1.057, this shows that the liquidity data used fluctuates greatly from 2017 to 2019. The liquidity variable ranges from the lowest value of 0.28% namely the company PT Jasa Marga (Persero) Tbk in 2019 with the highest score of 4.66%, namely the company PT Kalbe Farma Tbk in 2018.

The average leverage value as measured by the debt ratio is 0.49 or 49% with a standard deviation value of 0.184 or 18.4%, this shows that the leverage data used fluctuates greatly from 2017 to 2019. The leverage variable ranges from the lowest was 0.15 (15%) namely the company PT Indocement Tunggal Prakarsa Tbk in 2017 to the highest value of 0.77 (77%) namely the company PT Jasa Marga (Persero) Tbk in 2017. The average leverage value was 0, 49 shows that the size of the company's assets financed by creditors is 49%.

The sales growth variable has an average of 0.14% with a standard deviation value of 0.277%, this shows that the sales growth variable data used fluctuates greatly from 2017 to 2019. The sales growth variable ranges from the lowest value of -0.34 %, namely the company PT Matahari Department Store Tbk in 2018 to the highest value of 1.30%, namely the company PT Aneka Tambang Tbk in 2018.

The average value of profitability as measured by return on assets is 0.18 or 18%, with a standard deviation of 0.179 or 17.9%, which means that the data used fluctuates greatly from 2017 to 2019. Profitability variables range from the lowest value. by 0.02 (2%) namely PT Aneka Tambang Tbk in 2017 to the highest value of 0.71 (71%) namely PT Multi Bintang Indonesia Tbk in 2017. The average profitability value of 0.18 shows that every Rp. 1 of funds invested by investors as share capital, will generate a net profit of 18%.

The real earnings management variable has an average value of -0.002 (-0.2%) with a standard deviation of 0.189 (18.9%), which indicates the level of variation in the distribution of the data. Real earnings management variables ranged from the lowest value of -0.40 (-40%) namely the company PT Jasa Marga (Persero) Tbk in 2017 to the highest value of 0.58 (58%) namely the company PT Charoen Pokphand Indonesia Tbk in the year 2017.

Classic Aims Test

Normality test

Normality test using Lilliefors test. The provision in the error test is that if the statistic L count < L table (α = 0.05), then the error data is normally distributed. But if L count > L table (α = 0.05), then the data is not normally distributed.

Thus, the overall results of the calculation of the normality test using the Lilliefors test can be seen in the summary in table 1.3.

Table 1.3 Summary of Normality Test

No	Estimate	n	L Count	L Table		Decision
				= 0.05	= 0.01	
1	Y over X1	48	-0.1420	0.1279	0.1488	Normal
2	Y over X2	48	-0.1427	0.1279	0.1488	Normal
3	Y over X3	48	-0.1427	0.1279	0.1488	Normal
4	Y over Z	48	-0.1076	0.1279	0.1488	Normal

Source: Processed primary data (2021)

Multicollinearity Test

The multicollinearity test aims to test whether there is a correlation between the independent variables in a regression model. A good regression model should not correlate with the independent variables (Ghozali, 2010). Detection of the presence or absence of multicollinearity in this study by (1) analyzing the correlation matrix between independent variables, if there is a fairly high correlation between independent variables (generally above 0.90), then this is an indication of multicollinearity, (2) Looking at the value of tolerance and variance inflation factor, a regression model that is free from multicollinearity problems if it has a tolerance value of more than 0.10 or 10% and the value of variance inflation factor (VIF) is less than 10. The results of the calculation of tolerance are according to Table 1.4. shows that there is no independent variable that has a tolerance value of less than 10%; all tolerance values are more than 10%; which means there is no correlation between variables. The results of the calculation of the value of the variance inflation factor (VIF) also show the same thing, there is no independent variable that has a VIF value of more than 10; all variance inflation factor (VIF) values are less than 10. The conclusion is that there is no multicollinearity between independent variables in the regression model based on the tolerance value test.

Table 1.4 Summary of Multicollinearity Test

Variable	**Collinearity Statistics**	
	Tolerance	**VIF**
Liquidity	0.296	3,383
Leverage	0.305	3,279
Sales Growth	0.915	1.092
Profitability	0.873	1,146

Source: Processed primary data (2021)

Autocorrelation Test

The autocorrelation test is used to determine whether there is a correlation between the nuisance error in a certain period and the nuisance error of the previous period. A good regression model is a regression that is free from autocorrelation. An autocorrelation test can be done by using Durbin-Watson (DW) test. The results of the autocorrelation test can be seen in Table 1.5 below

Table 1.5 Autocorrelation test results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.784a	0.614	0.578	0.145	1,986

Source: Processed primary data (2021)

Based on the SPSS output, Durbin Watson's statistical value is 1.986. Meanwhile, from the Durbin Watson table with n = 48 and k = 4, we get d table, namely dl (outer limit) = 1.362 and du (inner limit) = 1.721 with a significance level of 5%, 4-du = 2.279; and 4-dl = 2.638; then from the calculation it is concluded that the DW-test is located in the test area. Referring to Ghozali (2011), the regression model in this study is free from autocorrelation problems because the Durbin Watson value is between du and 4-du.

Heteroscedasticity Test

The heteroscedasticity test is used to determine whether or not there is a deviation from the classical assumption of heteroscedasticity, namely the existence of variance inequality from the residuals for all observations in the regression model (Priyatno, 2009). Detection of heteroscedasticity are: 1) The probability value > 0.05 means that it is free from heteroscedasticity. 2) The probability value < 0.05 means that it is affected by heteroscedasticity. The test results using the Spearman rank test can be seen in table 1.6 below:

Table 1.6 Heteroscedasticity Test Results

			X1	X2	X3	X4
Spearman's rho	Abres	Correlation Coefficient	-0.125	0.229	0.067	-0.200
		Sig. (2-tailed)	0.399	0.117	0.653	0.172
		N	48	48	48	48

Source: Processed primary data (2021)

The results of the Spearman rank test in the table above show the significance probability values for each variable of 0.399, 0.117, 0.653 and 0.172. Because the significance probability value of each variable is greater than 0.05, it can be concluded that the data is free from heteroscedasticity.

Interaction Test

The interaction test often referred to as Moderated Regression Analysis (MRA) is a special application of linear multiple regression where the regression equation contains elements of interaction (multiplication of two or more independent variables) (Ghozali, 2011).

Analysis with this interaction test was carried out with the help of the SPSS (Statistical Package For Social Sciences) Release 25.0 for Windows program. From data processing through the SPSS program, the following results were obtained:

Table 1.7 Results of Regression Analysis

Information	B	t table	t count	Sig	Adj R2	Fcount	Sig
Equation 1							
(Constant)	0.428				0.578	17,100	0.000
X1	-0.040	1,680	-1.096	0.279			
X2	-0.412	1,680	-1,980	0.044			
X3	0.018	1,680	0.221	0.826			
Z	-0.913	1,680	-7.263	0.000			
Equation 2							
(Constant)	0.717				0.598	10,970	0.000
X1	-0.166	1,680	-2,415	0.020			
X2	-0.642	1,680	-2.282	0.028			
X3	-0.021	1,680	-0.184	0.855			
Z	-2.891	1,680	-1.982	0.044			
X1Z	0.811	1,680	2.023	0.040			
X2Z	1,929	1,680	1.036	0.307			
X3Z	0.470	1,680	0.383	0.704			

Source: Processed primary data (2021)

Based on the results of the regression test above, an equation can be formed as follows:

$Y = 0.428 - 0.040X_1 - 0.412X2 + 0.018X3 - 0.018Z + e$
$Y = 0.717 - 0.166X_1 - 0.642X2 - 0.021X3 - 2.891Z + 0.811X1Z + 1.929X2Z + 0.470X3Z + e$

From table 4.7 it is known that the adjusted R square value in equation 1 is 0.578. This means that 57.8% of real earnings management can be influenced by liquidity, leverage, sales growth, and profitability, the remaining 42.2% (100% - 57.8%) is explained by other reasons outside the model. While the adjusted R square value in equation 2 is 0.598. This means that 59.8% of real earnings management can be influenced by liquidity, leverage, sales growth, profitability, X1Z, X2Z and X3Z, the remaining 40.2% (100% - 59.8%) is explained by other reasons. outside the model.

From the Anova test or F test in table 4.7 above, the calculated F value in equation 1 is 17.100 with a significance probability showing 0.000. The test probability value is much smaller than = 0.05. This shows that real earnings management together (simultaneously) can be influenced by liquidity, leverage, sales growth and profitability. While the calculated F value in equation 2 is 10.970 with a significance probability showing 0.000. The test probability value is much smaller than = 0.05. This shows that real earnings management together (simultaneously) can be influenced by liquidity, leverage, sales growth, profitability, X1Z, X2Z and X3Z.

Hypothesis test

The results of the decision on the proposed hypothesis are explained as follows:

Effect of liquidity on real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that ttable is greater than tcount, with a ttable value of 1.680 and tcount -1.096 and the significance level is greater than 0.05. This means that liquidity has an insignificant negative effect on real earnings management because the direction is negative. Thus Ha1 is rejected.

The effect of leverage on real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that ttable is smaller than tcount, with a ttable value of 1.680 and tcount -1.980 and the significance level is much smaller than 0.05. This means that leverage has a negative effect on real earnings management because the direction is negative. Thus Ha2 is accepted.

Effect of sales growth on real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that ttable is greater than tcount, with a ttable value of 1.680 and tcount 0.221 and the significance level is much greater than 0.05. This means that sales growth has no effect on real earnings management. Thus Ha3 is rejected.

Profitability can moderate the relationship between liquidity and real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that the value of tcount X1Z (moderator) is greater than ttable, with a tcount value of 2.023 and ttable 1.680 and the significance level is less than 0.05. This means that profitability cannot moderate the relationship between liquidity and real earnings management. Thus Ha4 is accepted.

Profitability can moderate the relationship between*leverage* with real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that the value of tcount X2Z (moderator) is smaller than ttable, with a tcount value of 1.036 and ttable 1.680 and the significance level is greater than 0.05. This means that profitability cannot moderate the relationship between leverage and real earnings management. Thus Ha5 is rejected.

Profitability can moderate the relationship between sales growth and real earnings management

Based on the results of the calculations in table 4.7 above, it can be seen that the tcount value of X3Z (moderator) is smaller than ttable, with tcount 0.383 and ttable 1.680 and the significance level is greater than 0.05. This means that profitability cannot moderate the relationship between sales growth and real earnings management. Thus Ha6 is rejected.

Discussion

Effect of liquidity on real earnings management

From the research results, it is known that liquidity as measured by the current ratio has no effect on real earnings management in a negative direction. This means that the higher or lower the level of liquidity of a company will not affect real earnings management. The negative sign on the regression coefficient indicates that there is an opposite relationship between liquidity and real earnings management. Liquidity is measured by the current ratio where the current ratio is obtained by dividing short-term liabilities with current assets. A high current ratio indicates the company's ability to pay off short-term obligations using its current assets, so the higher the current ratio will reduce real earnings management.

The results of this study are in line with the results of research conducted by Winingsih (2017) which states that liquidity has no effect on earnings management. However, the results of this study contradict the results of research conducted by Dhea and Farida (2020), stating that liquidity has a negative effect on earnings management.

The effect of leverage on real earnings management

The leverage variable affects real earnings management in a negative direction. This means that the higher the leverage, the lower the real earnings management action. When the company has a high leverage ratio, the company is threatened not to be able to meet its debt obligations on time, allowing managers to take earnings

management actions. By doing earnings management, the company's performance will look good in the eyes of shareholders and the public even though the company is in danger of being liquidated.

The results of this study are in line with the results of research conducted by Agustia & Suryani (2018), which states that leverage has an effect on earnings management. However, the results of this study contradict the results of research conducted by Mariana, et al. (2016) found that leverage has no significant effect on income smoothing practices (earnings management).

Effect of sales growth on real earnings management

Sales growth variable has no effect on real earnings management in a positive direction. This shows that the higher or lower the sales growth of a company, it will not affect real earnings management. If the company has a high level of sales growth, it can be used by the company's management to get a bigger bonus, because management may take action on earnings management. Another reason is that the higher the company's sales growth, the greater the income earned by the company so that the tax to be paid by the company will be even greater. Therefore, the company carries out earnings management by lowering profits to reduce the tax burden that must be paid.

The results of this study are in line with the results of research conducted by Nahar & Erawati (2017) which found that sales growth had no significant effect on the practice of income smoothing (earnings management). However, the results of this study contradict the results of research conducted by Annisa & Hapsoro (2017) which found that growth has a significant and significant effect on earnings management.

Profitability can moderate the relationship between liquidity and real earnings management

The results show that the interaction of liquidity with profitability affects real earnings management in a positive direction. This means that profitability is able to strengthen the influence of liquidity on real earnings management. This is due to the increasing profitability indicating good company performance, and shareholders will also receive benefits for increasing company performance. In addition, managers will get bonuses if the company's performance increases, because the manager as the leader of the company's management process has succeeded in making the company have good performance, so managers are not motivated to take real earnings management actions.

Profitability can moderate the relationship between leverage and real earnings management

The results show that the interaction of leverage with profitability has no effect on real earnings management in a positive direction. This means that profitability is not able to strengthen the effect of leverage on real earnings management. This is because companies with a high level of leverage due to the amount of total debt to total capital will face a high default risk, namely the company is threatened not to be able to fulfill its obligations. Earnings management actions cannot be used as a mechanism to avoid the default. Fulfillment of obligations must still be done and cannot be avoided with earnings management.

Profitability can moderate the relationship between sales growth and real earnings management

The results show that the interaction of sales growth with profitability has no effect on real earnings management in a positive direction. This means that profitability is not able to strengthen the influence of sales growth on real earnings management. This is possible because management must be able to maintain sales trends every year, so that changes in sales growth do not affect the actions of company managers.

Conclusion

Based on the results of the analysis and discussion that have been carried out, the following conclusions can be drawn: 1) Liquidity does not affect real earnings management in a negative direction; 2) Leverage affects real earnings management in a negative direction; 3) Sales growth has no effect on real earnings management in a positive direction; 4) Profitability is not able to moderate the relationship between liquidity and real earnings management; 5) Profitability is able to moderate the relationship between leverage and real earnings management;

and 6) Profitability is not able to moderate the relationship between sales growth and real earnings management.

Limitations

This research is inseparable from the shortcomings and limitations. Limitations in this study are as follows: 1) Limited research using independent variables, namely the variables of liquidity, leverage, and sales growth; 2) Researchers limit the object of research to CGPI-winning manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the period from 2017 to 2019.

Suggestions

As previously explained, this research contains limitations. However, the results of this study can at least motivate further research. Taking into account the existing limitations, it is hoped that future research will improve the following factors: 1) For further researchers, it is possible to increase the number of research samples and extend the research period by increasing the observation period. It is suggested that in future research more accurate results can be obtained; 2) For Academics, the results of this research can be used as a rationale for the development of research in the field of accounting, especially those related to real earnings management.

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