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The Effect of Solvency, Profitability and Liquidity Ratios on Profit Growth in Coal Mining Companies Listed on the Indonesia Stock Exchange for the 2017-2021 Period

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Abstract
This study aims to examine the effect of solvency, profitability and liquidity on profit growth. The independent variables in this study are solvency as measured by the debt to equity ratio, profitability as measured by the net profit margin, and liquidity as measured by the quick ratio. Meanwhile, the dependent variable in this study is profit growth, profit growth can be calculated from this year's net income minus last year's net profit divided by last year's net profit. This type of research is quantitative research. The sample in this study was selected by purposive sampling method, namely the selection of samples using certain predetermined criteria. Based on the purposive sampling method, a sample of 3 was obtained from 35 mining companies listed on the Indonesia Stock Exchange during the 2017-2021 period. The analytical method used in this study is multiple linear regression analysis using the SPSS version 25 program. The results of this study indicate that solvency has no significant effect on profit growth, and liquidity has no significant effect on profit growth, while profitability has a significant effect on profit growth.
Keywords: Solvability, Profitability, Liquidity, Profit Growth.

INTRODUCTION

Every company in carrying out its business must record every activity related to company finances, because every financial transaction carried out by the company will later be held accountable, known as financial statements. From the financial reports, it can be seen how the current financial conditions are, users of financial reports usually assess the condition of the company's financial health from the company's ability to create profits or benefits for the company's survival.

Profit is an important means to maintain the viability of the company. According to (PSAK 46, 2018), accounting profit is net profit for one period before deducting taxes. The higher the expected profit, the company will be able to survive, grow and develop in the face of competition. Companies with growing profits have the ability to increase the relationship between the size or size of the company and the level of profit achieved. In addition, profit growth in the company is also a part that is considered and expected by investors as a tool for investing and making decisions in the future.

In Indonesia, coal mining companies are one of the largest natural resource industrial sectors which are one of the largest coal producers and exporters in the world. Coal is divided into two main groups, namely thermal coal (thermal/steaming coal) which is generally used for power generation and metallurgical coal (metallurgy coal/coking coal) which is generally used for steel making. Revenue from royalties and taxes from the sale of coal can be allocated to support economic development, as well as an economical energy resource to meet national needs. Coal is an important component of electricity generation for the world today. In addition,

coal is also the second largest energy supplier after oil. This is inseparable from the world's energy demand which tends to increase every year.

Future profit growth cannot be ascertained, therefore a company needs to make predictions about profit growth (Sari, et al., 2017). Every company needs to estimate the profit to be obtained in the future by analyzing the financial statements by calculating and interpreting the company's financial ratios (Kurniawan, 2017). Financial ratios have roles and functions to analyze, estimate profits to be received, and make decisions on profit growth to be achieved in the future. There are several groups of financial ratios that are often used by companies, namely the liquidity ratio, solvency ratio (laverange ratio), activity ratio, and profitability ratio. In this study, researchers only took three ratios, namely the liquidity ratio, solvency ratio, and profitability ratio. These three ratios are very useful for management in carrying out short and long term planning and decision making activities.

Based on the background description above, the researcher is interested in conducting research entitled "The Influence of Solvency, Profitability and Liquidity Ratios on Profit Growth in Coal Mining Companies Listed on the Indonesia Stock Exchange for the 2017-2021 Period"

THEORETICAL BASIS

Profit Growth

Profit is the main key to the survival of the company. The goal of the company is to maximize profits, profits are used to support the establishment of a company besides being used to fight competition with other companies. According to (PSAK 46, 2018), accounting profit is net profit for one period before deducting taxes. According to Harahap (2015: 276), accounting profit is the difference between the realization of income originating from company transactions in a certain period minus the costs incurred to obtain the income. Meanwhile, operationally profit can be defined as a result of the difference between the acquisition of income in a certain period with the costs incurred and related to that income.

Types of profit in relation to calculations according to Mia Lasmi Wardiyah (2017: 266), are as follows:

1. Gross profit is the difference between net sales and cost of goods sold. Called gross profit because the amount must be deducted by business expenses.
2. Operating profit is the difference between gross profit and total operating expenses.
3. Net profit is the final figure in the calculation of profit and loss derived from operating profit plus other income minus other expenses.

Profit growth indicates an increase or decrease in company profits every year. According to Harahap (2015: 310), profit growth is a ratio that shows the company's ability to increase net income compared to the previous year. Every company needs to estimate the profit to be obtained in the future by analyzing the financial statements by calculating and interpreting the company's financial ratios (Kurniawan, 2017). The profit referred to in this study is EAT (Earning After Tax) profit, which is net profit after tax. The formula used is as follows:

$$\Delta Yt = \frac{Yt - Yt\text{-}1}{Yt\text{-}1}$$

Information:

ΔYt = Profit growth
Yt = Company profit after tax in period t
Yt_1 = Company profit after tax in period t-1

Based on the explanation above, it can be concluded that profit growth can be calculated from year to year by subtracting the current profit from the previous profit and then dividing it by the previous year's profit. According to (Angkoso, 2016: 141), profit growth is influenced by several factors, including among others:

1. Size of the Company. The larger a company, the higher the precision of expected profit growth.
2. Company Age. Companies that have just been established lack experience in increasing profits, so the accuracy is still relatively low.
3. Level of Leverage. If the company has a high level of debt, then managers tend to manipulate profits so that it can reduce the accuracy of profit growth.
4. Sales Level. The level of sales in the past is high, the higher the level of sales in the future so that the profit growth is higher.
5. Changes in Past Profits. The greater the change in past earnings, the more uncertain future profits will be.

Profit Growth Objectives and Benefits

The goal of profit growth according to Subramanyam (2017: 374), states that the goal of profit growth for companies and parties outside the company is:

1. To measure the company's ability to carry out its operational performance activities.
2. To measure or calculate the profit earned in a certain period.
3. To assess the company's profit position in the previous year with the current year.
4. To assess the development of profits from time to time.
5. To assess the amount of net profit after tax with own capital.
6. To measure the productivity of all company funds used both loan capital and own capital.
7. To measure the productivity of all company funds, both own capital is used.

Meanwhile, the benefits of profit growth according to Haryono (2017: 70). This profit growth can be used as a basis for making decisions whether the company will distribute profits as dividends to shareholders or will be retained in the form of retained earnings to finance investment in the future.

Solvency Ratio

According to Kasmir (2018: 151), the solvency ratio or leverage ratio is the ratio used to measure the extent to which a company's assets are financed with debt. That is, how much debt is borne by the company compared to its assets. In a broad sense it is said that the solvency ratio is used to measure a company's ability to pay all of its obligations, both short term and long term if the company is liquidated. According to Hery (2015: 190) states that, the solvency ratio or leverage ratio is the ratio used to measure the extent to which a company's assets are financed with debt. In other words, the solvency ratio or leverage ratio is the ratio used to measure how much debt the company must bear in order to fulfill its assets. In a broad sense, the solvency ratio is used to measure a company's ability to fulfill all of its obligations, both short-term and long-term liabilities. According to Irham Fahmi (2014: 59), solvency is a ratio that shows how a company is able to manage its debts in order to make a profit and is also able to repay its debts. Based on some of the definitions above, it can be concluded that the solvency ratio is a ratio that describes a company's ability to pay off all of its obligations, both short term and long term.

Purpose and Benefits of Solvency Ratio

According to Hery (2015: 164) states the purpose and benefits of the overall solvency ratio is to find out the position of the company's total liabilities to creditors, especially when compared to the amount of assets or capital owned by the company, to find out the position of the company's long-term liabilities to the capital owned by the company. In addition, the objective of the solvency ratio is also to assess the ability of the company's assets to meet all obligations such as repaying the loan principal and interest on a regular basis and to assess how much of the company's assets are financed by debt and capital.

Types of Solvency Ratios

The types of solvency ratios of a company, namely:

1. Debt to Asset Ratio/DAR. According to Kasmir (2018: 156), the debt to asset ratio is a debt that is used to measure the ratio between total debt and total assets. In other words, how much the company's assets are financed by debt or how much the company's debt affects asset management. The formula used is as follows.

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

2. Debt to Equity Ratio/ DER. According to Kasmir (2018: 157), the Debt to equity ratio is the ratio used to assess debt to equity. This ratio is sought by comparing all debt, including current debt with all equity. The formula used is as follows.

$$\text{Debt to Equity Ratio} = \frac{\text{Total Amoun of Debt (Debt)}}{\text{Equity}}$$

Profitability Ratio

According to Kasmir (2018: 196), the profitability ratio is a ratio for assessing a company's ability to make a profit. This ratio also provides a measure of the level of management effectiveness of a company. This is indicated by the profit generated from sales and investment income. The point is the use of this ratio shows the efficiency of the company. According to Hery (2015: 192), says that the profitability ratio is the ratio used to assess the company's ability to generate profits from normal activities. Sartono (2010: 504), said that profitability is the ability of a company to generate profits or profits associated with sales, total assets and own capital. Based on some of the definitions above, it can be concluded that the profitability ratio is the ratio used to assess a company's ability to earn profits at the level of sales, assets and capital.

Purpose and Benefits of Profitability Ratios

Kasmir (2015: 197) states that the purpose of using profitability ratios for companies and for parties outside the company is to measure or calculate the profit earned by the company in a certain period, to assess the company's profit position in the previous year with the current year, to assess the amount of net profit after tax with own capital and to measure the productivity of all company funds used both loan capital and own capital.

Types of Profitability Ratios

The types of profitability ratios of a company, is:

1. Gross Profit Margin/GPM. According to Kasmir (2018: 199), gross profit margin is a ratio used to measure a company's ability to earn gross profit per rupiah of sales. The gross profit margin shows profit relative to the company, by means of net sales minus cost of goods sold. This ratio is a way to determine the cost of goods sold. The formula for calculating Gross Profit Margin is as follows:

$$\text{Gross Profit Margin} = \frac{\text{Sales} - \text{Cost of Goods Sold}}{\text{Sales}}$$

2. Net Profit Margin/NPM. According to Kasmir (2018: 200), net profit margin is a measure of profit by comparing profit after interest and taxes compared to sales. This ratio shows the company's net income from sales. The formula for calculating Net Profit Margin is as follows.

$$\text{Net Profit Margin} = \frac{\text{Profit After Interest and Taxes}}{\text{Sales}}$$

3. Return on Investment Ratio (ROI). According to Kasmir (2018: 201), the return on investment ratio is a ratio that shows the return on the total assets used in the company. ROI is also a measure of management's effectiveness in managing its investments. The better the return on investment of the company, the better the performance provided by the company and satisfy shareholders. The formula for calculating Return on Investment (ROI) is as follows:

$$\text{Return on Invesment (ROI)} = \frac{\text{Profit After Interest and Taxes}}{\text{Total Assets}}$$

4. Return on Equity Ratio/ROE. According to Kasmir (2018: 204), the ratio of return on equity or return on equity is a ratio that shows the return on equity or profitability of own capital. This ratio shows the efficient use of own capital. The higher this ratio, the better. This means that the position of the owner of the company is getting stronger, and vice versa. The formula for calculating Return on Equity Ratio (ROE) is as follows:

$$\text{Return on Equity Ratio (ROE)} = \frac{\text{Profit After Interest and Taxes}}{\text{Total Ekuity}}$$

Liquidity Ratio

According to Kasmir (2018: 110), the liquidity ratio is a ratio that describes a company's ability to meet short-term obligations. According to Hery (2015), the liquidity ratio is a ratio that shows a company's ability to fulfill its short-term debt obligations. In other words, the liquidity ratio is a ratio to measure how well a company is able to pay off short-term debt that will mature. According to Harahap (2015: 301), the liquidity ratio describes a company's ability to settle its short-term obligations. This ratio can be calculated through sources of information about working capital, namely current assets and current liabilities. Based on the above understanding, it can be concluded that the liquidity ratio is the ability of a company to fulfill its short-term obligations by using its current assets in order to be able to pay its obligations on time.

Purpose and Benefits of Liquidity Ratios

Hery (2015: 151) states that the purpose and benefits of the overall liquidity ratio are to measure a company's ability to pay obligations or debts that are soon due, to measure a company's ability to pay short-term liabilities using total current assets, to measure a company's ability to pay short-term obligations using very current assets, to measure the level of availability of company cash in paying short-term debt. Liquidity also aims as a financial planning tool in the future, especially with regard to planning cash and short-term debt and to see the condition and position of the company's liquidity from time to time by comparing it over several periods.

Types of Liquidity Ratios

The types of liquidity ratios of a company, namely:

1. Current Ratio. According to Kasmir (2018: 134), the current ratio is a ratio to measure a company's ability to pay short-term obligations that are soon due when billed as a whole or

how much current assets are available to cover short-term obligations that are soon due. The formula for calculating the Current Ratio is as follows:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

2. Quick Ratio (Quick Ratio or Acid Test ratio). According to Kasmir (2018: 137), the quick ratio is a ratio that shows the company's ability to fulfill or pay current liabilities or debts with current assets without taking into account the stock value. This ratio shows the ability of the most liquid current assets to cover current liabilities, the greater this ratio, the better. The formula for calculating the Quick Ratio (Quick Ratio or Acid Test Ratio) is as follows:

$$\text{Quick Ratio or Acid Test Ratio} = \frac{\text{Current asset} - \text{Supply}}{\text{Current Liabilities}}$$

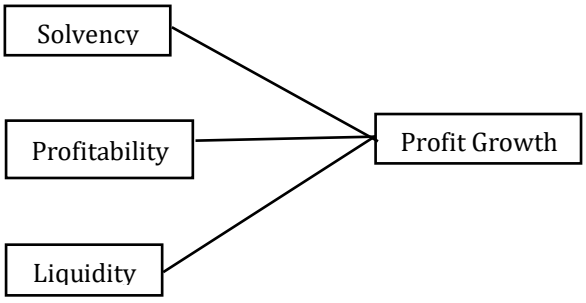
3. Cash Ratio. According to Kasmir (2018: 138), the cash ratio is a tool used to measure how much cash is available to pay debts. Availability of cash can be indicated by the availability of cash or cash equivalents such as a current account or savings account at a bank (which can be withdrawn at any time). It can be said that this ratio shows the company's real ability to pay its short-term debts. The formula for calculating the cash ratio is as follows:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Bank}}{\text{Current Liabilities}}$$

Previous Research

Research conducted by Digdowiseiso and Santika in 2022 entitled Effect of Solvency, Profitability and Liquidity Ratios on Profit Growth in Coal Mining Companies Listed on the Indonesia Stock Exchange for the 2013-2020 period. The results showed that the solvency variable measured using DER had no significant effect on profit growth. Profitability variable as measured using NPM has a significant effect on profit growth. Liquidity variable as measured using QR has no significant effect on profit growth. The second study conducted by Maryanti and Siswanti in 2023 entitled The Effect of Debt to Equity Ratio and Company Size on Profit Growth (Property and Real Estate Sub-Sector Companies Listed on the Indonesia Stock Exchange in 2015-2019) shows that DER has no significant effect on profit growth . The three studies conducted by Nadia and Dwiridotjahjono in 2021 with the title Effects of Financial Performance on Profit Growth in Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2010 – 2019 period show that DER and QR have a significant effect on profit growth while NPM has no effect significantly on profit growth.

Framework



Hypothesis Development

Effect of Solvency Ratio on Profit Growth

Solvability in this study is measured using the debt to equity ratio. Debt to equity ratio is the ratio used to assess debt with equity or capital. A low debt to equity ratio means that fewer company assets are financed by debt and the smaller the interest expense that must be paid so

that the company's profits will increase. If the company is able to utilize obligations or debts effectively, then the results obtained in the form of profits can be sufficient to pay periodic interest costs plus the principal obligations. The results of research by Nadia and Dwiridotjahjono (2021) state that the debt to equity ratio has a significant effect on profit growth. However, the results of this study are different from the results of research by Digdowiseiso and Santika (2022) and Maryanti and Siswanti (2023) which state that the debt to equity ratio has no significant effect on profit growth. Based on these thoughts, the following hypotheses can be derived:
H1: Solvability has a significant effect on profit growth.

The Effect of Profitability Ratios on Profit Growth

Profitability in this study is measured using the net profit margin. Net profit margin measures the company's ability to generate profits with sales achieved by the company. The higher this ratio indicates that the company is more efficient in production, personnel, marketing and finance, this causes an increase in the attractiveness of investment from investors to invest their capital, so that the company's profits will increase. Increased profits indicate a company's good financial performance and provide evidence to investors that the company can work well. The results of the research by Digdowiseiso and Santika (2022) state that net profit margin has a significant effect on profit growth. However, the results of this study are different from the results of the research of Nadia and Dwiridotjahjono (2021), which state that net profit margin has no significant effect on profit growth. Based on these thoughts, the following hypotheses can be derived:
H2: Profitability has a significant effect on profit growth.

Effect of Liquidity Ratio on Profit Growth

Liquidity in this study is measured using the quick ratio. The quick ratio measures the company's ability to meet current debt with current assets owned by the company. The higher this ratio indicates that the company is more efficient in managing its current assets in meeting the company's current debt, so that the company's profit will increase. Increased profits indicate a company's good financial performance and provide evidence to investors that the company can work well. The results of Nadia and Dwiridotjahjono's research (2021) state that the quick ratio has a significant effect on profit growth. However, the results of this study are different from the results of the research by Digdowiseiso and Santika (2022) which state that the quick ratio has no significant effect on profit growth. Based on these thoughts, the following hypotheses can be derived:
H3: Liquidity has a significant effect on profit growth.

RESEARCH METHODS

Types of research

This type of research used is quantitative research. Quantitative research emphasizes testing theories by measuring research variables with numbers and analyzing data using statistics, while based on the characteristics of the problems studied, this research is a comparative casual research. Comparative casual research is research that shows the direction of the relationship between independent variables and related variables, besides measuring the strength of the relationship. This study is to examine the effect of the independent variables consisting of solvency, profitability, and liquidity on the dependent variable, namely profit growth.

Sampling Technique

The sampling technique in this study used a purposive sampling method. Purposive sampling is a sampling technique with certain considerations (Sugiyono, 2018). The sampling technique by purposive sampling aims to obtain a sample that is referive based on the specified criteria. Following are the criteria for sampling:

1. Coal mining companies listed on the Indonesia Stock Exchange in 2017-2021.
2. Mining companies that publish financial reports regularly in 2017-2021.
3. Mining companies that publish financial reports in dollars in 2017-2021.

Data Collection Technique

The type of data used is secondary data. Secondary data is research data obtained by researchers indirectly but through intermediaries. Secondary data is generally available in the form of notes or reports arranged in archives. The data used as the object of this research was obtained from the annual financial reports of coal mining companies listed on the Indonesia Stock Exchange (IDX), namely the annual reports of companies listed in the 2017-2021 period.

Variables and Variable Operational Definitions

The operational definitions of the variables for each variable in this study are as follows:

Dependent Variable (Dependent Variable)

The dependent variable used in this study is profit growth. According to Harahap (2015: 310), profit growth is a ratio that shows the company's ability to increase net income compared to the previous year. The profit used is profit after tax (earning after tax). Profit growth can be formulated as follows:

$$\Delta Yt = \frac{Yt - Yt\text{-}1}{Yt\text{-}1}$$

Information:

ΔYt = Profit growth
Yt = Company profit after tax in period t
Yt_1 = Company profit after tax in period t-1

Independent Variable

Solvability

This study measures solvency using the debt to equity ratio. According to Kasmir (2018: 157), the Debt to equity ratio is the ratio used to assess debt to equity. This ratio is sought by comparing all debt, including current debt with all equity. This ratio describes how much the owner's capital can cover debts to creditors. The formula used to calculate the debt to equity ratio:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Amoun of Debt}}{\text{Equity}}$$

Profitability

This research measures profitability using net profit margin. According to Kasmir (2018: 200), net profit margin is a measure of profit by comparing profit after interest and taxes compared to sales. This ratio shows the company's net income from sales. The way to measure this ratio is to compare net income after interest and taxes with net sales. The formula used to calculate the net profit margin:

$$\text{Net Profit Margin} = \frac{\text{Profit After Interest and Taxes}}{\text{Sale}}$$

Liquidity

This study measures liquidity using a quick ratio. According to Kasmir (2018: 137), the quick ratio is a ratio that shows the company's ability to fulfill or pay current liabilities or debts with current assets without taking into account the stock value. The formula used to calculate the quick ratio:

$$\text{Quick Ratio or Acid Test Ratio} = \frac{\text{Current Assets} - \text{Supply}}{\text{Current Liabilities}}$$

Data Analysis Technique

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to measure the effect of the relationship between the independent variables and the dependent variable. Multiple linear regression analysis in this study was used to determine the effect of financial ratios concerning liquidity, solvency and profitability on profit growth. The following is the equation used in multiple linear regression:

$PL = \alpha + \beta DER + \beta NPM + \beta QR + e$

Information:

PL = Profit Growth
α = Constant
e = Standar Error
β= Regression Coefficient
DER = Debt to Equity Ratio
NPM = Net Profit Margin
QR = Quick Ratio

Classic Assumption Test

Normality Test

The normality test serves to test the regression model, the confounding or residual variables have a normal or close to normal distribution (Ghozali, 2016: 154). In order to find out this, the formulation is as follows: 1) If there are data points that are spread around the normal line and in the direction of the diagonal, then the assumption of normality is fulfilled by the regression model. 2) If the data distribution points are far from the diagonal line and are not in the same direction, then the regression model does not meet the assumption of normality. The normality test can also use the Kolmogorov Smirnov test, which is a normality test that uses the cumulative distribution function. Following are some references according to Ghozali (2016: 154) which can be used for decision making in the normality test as follows: 1) If the sig value < 0.05, then the data is not normal and the distribution is not good 2) If the sig value > 0, 05, then the data is normal and well distributed.

Multicollinearity Test

The multicollinearity test is useful for testing existing regression models and aims to find out whether there is a correlation between independent variables (Ghozali, 2016: 103). The values used in the multicollinearity test are as follows: a) Tolerance value ≤ 0.10 and VIF ≥ 10, then there is multicollinearity between variables b) Tolerance value ≥ 0.10 and VIF ≤ 10, then there is no multicollinearity between variables.

Autocorrelation Test

According to Suliyanto (2011: 125) the autocorrelation test aims to find out whether there is a correlation between members of a series of observational data that are described

according to time (time series) or space (cross section). Several methods can be used to detect the presence or absence of autocorrelation, one of which is the Durbin Watson test (DW Test). According to Ghozali (2016: 48) the value limits of the Durbin Waston method are: a) D-W values above 2 mean there is negative autocorrelation b) D-W values between -2 to +2 mean there is no autocorrelation c) D-W values below -2 mean there is a positive autocorrelation.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is an unequal variance from the residual one observation to another. Detection that can be done to find out whether there is heteroscedasticity is to see whether there is a certain pattern on the graph. Where the X axis is Y which has been predicted and the residual X axis (Y prediction – Y actually) has been studentized.

Model Feasibility Test

F test

This test aims to determine whether or not the research model is feasible to continue. The feasibility test of the model uses a significant level of 5%. The criteria for testing the feasibility of the model with a = 5% are as follows: a) If the significant value of the F test ≥ 5%, then the regression model is not feasible, b) If the significant value of the F test ≤ 5%, then the regression model is feasible, so the model can be continued .

Coefficient of Determination (R2)

The R2 value indicates the large contribution of liquidity, solvency and profitability to profit growth. In essence, the coefficient of determination is to calculate how far the model's ability to explain variations in the dependent variable (Ghozali, 2016:95). 11 The coefficient of determination has a value from 1 to 0, with the following explanation: a) The value of R2 is close to 1 (the value of R2 is greater and the contribution to the dependent variable is stronger), b) The value of R2 is close to 0 (the value of R2 is getting smaller and the contribution to the variable weakened dependents).

Hypothesis Testing (T Test)

The t test basically shows how far the influence of one independent variable individually explains the variation of the dependent variable (Ghozali, 2016: 97). The t test was conducted to determine the effect of the independent variables partially on the dependent variable by looking at the significant value of each variable in the output of the regression results using SPSS with a significant level of α = 0.05. The following are the criteria for decision making in the t test according to Suliyanto (2011: 56), namely: 1) If the significant value of t > 0.05, then the effect is not significant (each variable partially does not affect the dependent), 2) Conversely, if significant value t <0.05, then it has a significant effect (partially each variable affects the dependent).

RESEARCH RESULTS AND DISCUSSION

Multiple Linear Regression Analysis

To determine the effect of liquidity as measured by the current ratio, solvency as measured by the debt to equity ratio and profitability as measured by net profit margin as the independent variable on profit growth as the dependent variable, it is necessary to test multiple linear regression analysis. From the results of data processing using SPSS, the results are presented in Table 1 below:

Table 1. Multiple Linear Regression Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.327	5.558		-.958	.358		
	Debt Equity Ratio	-.191	2.885	-.023	-.066	.948	.276	3.623
	Net Profit Margin	32.673	12.931	.673	2.527	.028	.477	2.098
	Quick Ratio	1.558	2.743	.218	.568	.582	.229	4.366
a. Dependent Variable: Profit Growth								

Source: SPSS v.22 Outputs

Based on the SPSS output in table 1, the following equation can be made: Y = α + β1 X1 + β2 X2 + β3 X3 + e Profit Growth = -5,327 - 0,191 X1 + 32,673 X2 + 1,558 X3 + e. The results of the regression equation are explained as follows:

1. The constant value is negative by -5,327. This can be interpreted if the variables Debt Equity Ratio (X1), Net Profit Margin (X2), and Quick Ratio (X3), are considered constant or have a value of 0, then Profit Growth will decrease by 5,327.
2. The coefficient value (β1) of the variable Debt Equity Ratio (X1) has a negative value of -0.191. This can be interpreted that for every increase in the Debt Equity Ratio (X1) by 1, Profit Growth will decrease by 0.191 (assuming other variables have a fixed value).
3. The coefficient value (β2) of the Net Profit Margin variable (X2) has a positive value of 32,763. This can be interpreted that for every increase in Net Profit Margin (X2) by 1, Profit Growth will increase by 32,763 (assuming other variables have a fixed value).
4. The coefficient value (β3) of the Quick Ratio variable (X3) has a positive value of 1,558. This can be interpreted that every increase in the Quick Ratio (X3) of 1, then Profit Growth will increase by 1,558 (assuming other variables have a fixed value).

Classic assumption test

Normality test

The normality test was carried out to find out whether the residual data in this study were normally distributed or not by using the P-Plot chart analysis and the Kolmogorov-Smirnov analysis. Kolmogorov-Smirnov analysis compares the distribution of the data to be tested with the standard normal distribution. Following are the results of the normality test using the Kolmogorov Smirnov analysis, which can be seen in Table 2 below:

Table 2. Normality Test Results with Kolmogorov Smirnov Analysis

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		15
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.98695586
Most Extreme Differences	Absolute	.186
	Positive	.186
	Negative	-.111
Test Statistic		.186
Asymp. Sig. (2-tailed)		.170[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: SPSS v.22 Outputs

The basis for decision making in the Kolmogorov Smirnov analysis is that if the significance is greater than 5%, the data is normally distributed. Conversely, if the significance is less than 5%, the data is not normally distributed. Based on Table 2 it can be seen that the significant value is 0.170, this means that the data is normally distributed because the significant value is 0.170 > 0.05. It can be concluded that solvency, profitability, liquidity and profit growth are normally distributed, while graphical analysis tests are carried out to assess data normality with a graphical approach, namely the normal P-P Plot graph. In this test the data is considered normally distributed if the data spreads around the diagonal line and follows the diagonal line.

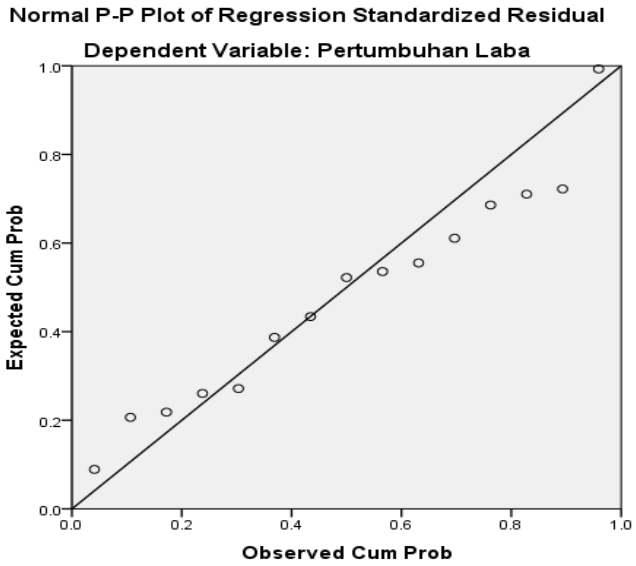


Figure 1. Normal Probability Plot Graph
Source: SPSS v.22 Outputs

From Figure 1 it can be interpreted that the data is normally distributed, because the data or points spread not far from the diagonal line and follow the diagonal line. So the regression model in this study meets the assumption of normality.

Multicollinearity Test

Multicollinearity test was conducted to test whether the regression model has a correlation between one or all of the independent variables. The regression model is considered good if it is free from multicollinearity. The multicollinearity between liquidity, solvency and profitability can be seen from the tolerance value and VIF (Variance Inflation Factor) in Table 3 below:

Table 3. Multicollinearity Test Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.327	5.558		-.958	.358		
	Debt Equity Ratio	-.191	2.885	-.023	-.066	.948	.276	3.623
	Net Profit Margin	32.673	12.931	.673	2.527	.028	.477	2.098
	Quick Ratio	1.558	2.743	.218	.568	.582	.229	4.366
a. Dependent Variable: Profit Growht								

Source: SPSS v.22 Outputs

From the SPSS output in table 3 it can be seen that the tolerance value for all independent variables is more than 0.1 and the VIF value for all independent variables is less than 10. So it can be concluded that the regression model does not have multicollinearity.

Autocorrelation Test

The autocorrelation test in this study used the Durbin Watson (DW) test. The autocorrelation test was carried out to find out whether there is a correlation between a series of research data described according to time (time series) or space (cross section). If the DW value is between -2 to 2, it means that there is no autocorrelation. If the DW value is more than 2 then there is a negative autocorrelation and if the DW value is less than -2 then there is a positive autocorrelation. The Durbin Watson (DW) value from the calculation results with SPSS is presented in Table 4 below:

Table 4. Autocorrelation Test Results (Durbin Watson)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.879[a]	.773	.711	.90223	1.150
a. Predictors: (Constant), Quick Ratio, Net Profit Margin, Debt Equity Ratio					
b. Dependent Variable: Profit Growth					

Source: SPSS v.22 Outputs

From the results of the autocorrelation test using Durbin Watson, it shows that the Durbin Watson value is 1,150. This value is between -2 to 2, so it can be concluded that the analysis model has no autocorrelation or no relationship between a series of data in this study.

Heteroscedasticity Test

The heteroscedasticity test in this study used the scatterplot graphical method by looking at the patterns that appear on the graph. The heteroscedasticity test was carried out in this study in order to find out whether in the regression model there was an inequality of variation from one residual observation to another. The regression model is said to be good if there is no heteroscedasticity. Following are the results of the heteroscedasticity test using the SPSS program:

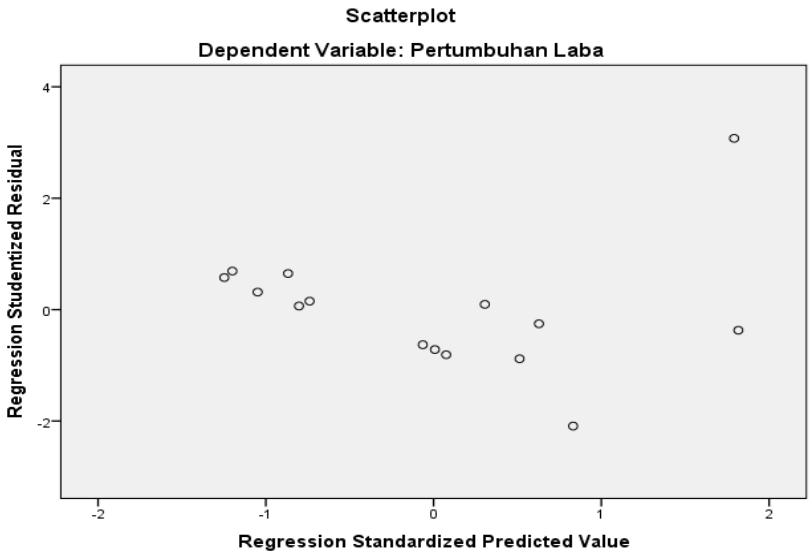


Figure 2. Heteroscedasticity Test Results
Source: SPSS v.22 Outputs

From Figure 2 it can be seen that the points spread randomly and are scattered both above and below the number 0 on the Y axis, it can be concluded that the regression model in this study did not have heteroscedasticity.

Model Feasibility Test

F Test

The F test was carried out to find out whether or not the research model was feasible to continue. The significant level used in this test is α=5%. The F test is said to be feasible if the significant value is less than 5%, while it is said to be infeasible if the significant value is more than 5%. The following are the results of the F test presented in Table 5:

Table 5. F Test Results

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.542	3	10.181	12.507	.001[b]
	Residual	8.954	11	.814		
	Total	39.496	14			
a. Dependent Variable: PL						
b. Predictors: (Constant), QR, NPM, DER						

Source: SPSS v.22 Outputs

From Table 5 it can be seen that the significance value of f is 0.001. This value is smaller than the significant level of 5% or 0.001 <0.05, so it can be concluded that the regression model that was created in this study is appropriate and feasible to continue.

Coefficient of Determination (R2)

The results of the value of R2 or R Square indicate the level of contribution of liquidity, solvency and profitability in influencing profit growth in percentage (%). The SPSS calculation results obtained the coefficient of determination which is presented in Table 6 as follows:

Table 6. Coefficient of Determination (R2)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.879[a]	.773	.711	.90223	1.150
a. Predictors: (Constant), QR, NPM, DER					
b. Dependent Variable: PL					

Source: SPSS v.22 Outputs

From Table 6 it can be seen that the coefficient of determination (R2) is 0.773. This value indicates that solvency, profitability, and liquidity have a simultaneous effect of 77.3% on profit growth. In the analysis of the coefficient of determination, there is a provision that the greater the R2 number or the closer it is to number one, the stronger the influence will be. So, the influence given by solvency, profitability, and liquidity has a fairly strong influence, namely 77.3% and the remaining 22.7% is influenced by other variables not included in this study.

Hypothesis Test (T Test)

The effect of solvency, profitability and liquidity partially on profit growth can be identified through the results of hypothesis testing. The t-test is carried out by comparing the significant t-value in the test results table with the probability level that has been determined in this study, namely 95% or α = 5%. Following are the results of hypothesis testing using the SPSS program presented in Table 7:

Table 7. Hypothesis Test Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.327	5.558		-.958	.358		
	Debt Equity Ratio	-.191	2.885	-.023	-.066	.948	.276	3.623
	Net Profit Margin	32.673	12.931	.673	2.527	.028	.477	2.098
	Quick Ratio	1.558	2.743	.218	.568	.582	.229	4.366
a. Dependent Variable: Profit Growth								

Source: SPSS v.22 Outputs

From the SPSS output in table 7 it can be seen that the sig DER and QR values are > 0.05 so that the DER and QR variables have an insignificant effect, while the sig NPM value is <0.05, so it can be concluded that the NPM variable has a significant influence.

Discussion

Effect of Solvency on Profit Growth

The results of the t test show that solvency as measured by the debt to equity ratio has no significant effect on profit growth, so the statement in the first hypothesis which states that solvency has a significant effect on profit growth is rejected. Based on the analysis results show that solvency has no significant effect on profit growth in mining companies listed on the Indonesia Stock Exchange. This means that the company's debt dominates the company's capital structure compared to capital. The dominance of debt will have an impact on the survival of the company, especially in increasing profits. This shows that the increase in corporate debt used for working capital and operational activities of the company is not able to generate optimal profits.

The results of this study are consistent with Nadia and Dwiridotjahjono (2021) stating that the debt to equity ratio has a significant effect on profit growth. However, the results of this study are different from the results of research by Digdowiseiso and Santika (2022) and Maryanti and Siswanti (2023) which state that the debt to equity ratio has no significant effect on profit growth.

Effect of Profitability on Profit Growth

Based on the results of the t test, it was found that profitability as measured by net profit margin has a significant effect on profit growth, so the statement in the third hypothesis which states that profitability has a significant effect on profit growth is accepted. The net profit margin describes the level of net profit that the company gets from its sales. The results of the analysis show that the influence of profitability on profit growth is significant. This shows that the company has been efficient in production, personnel, marketing and finance, this has led to an increase in the attractiveness of investment from investors to invest their capital, so that the company's profits have increased. Increased profits indicate a good financial performance of the company and provide evidence to investors that the company can perform well.

The results of this study are in line with research conducted by Digdowiseiso and Santika (2022) which state that net profit margin has a significant effect on profit growth. However, the results of this study are different from the results of Nadia and Dwiridotjahjono's research (2021), which state that net profit margin has no significant effect on profit growth.

Effect of Liquidity on Profit Growth

Based on the results of the t test, it was found that liquidity as measured by the quick ratio had no significant effect on profit growth, so the statement in the third hypothesis which stated that profitability had a significant effect on profit growth was rejected. This means that the company's current debt dominates the company's capital structure compared to current assets. The dominance of debt will have an impact on the survival of the company, especially in increasing profits. This shows that the increase in corporate debt used for working capital and operational activities of the company is not able to generate optimal profits. The company is also considered less effective in utilizing the company's current assets in increasing profits.

The results of this study are in line with research conducted by Digdowiseiso and Santika (2022) which state that the quick ratio has no significant effect on profit growth. However, the results of this study are different from the results of Nadia and Dwiridotjahjono's research (2021), which state that the quick ratio has a significant effect on profit growth.

CONCLUSION

This research was conducted with the aim of knowing the effect of the independent variables consisting of solvency, profitability and liquidity on the dependent variable, namely profit growth at mining companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Based on the results of the research and discussion that have been explained, the conclusions that can be drawn are as follows: First, Solvability as measured by the Debt to Equity Ratio has no significant effect on profit growth in mining companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Second, Profitability as measured by Net Profit Margin has a significant effect on profit growth at mining companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Third, Liquidity as measured by the Quick Ratio has no significant effect on profit growth at mining companies listed on the Indonesia Stock Exchange for the 2017-2021 period.

Based on the conclusions in this study, the suggestions that can be submitted are as follows: First, it is better for further research to use a larger number of samples, both the number of companies and the period of the sample used in this study. Second, future research should also be able to develop other variables that can affect profit growth to be studied. Third, every company should also be advised to use financial ratios that can measure the level of profit growth, so that companies can know the company's financial condition and are able to use all the resources they have optimally. Fourth, investors are advised if they want to make an investment to pay attention to the factors that can affect profit growth, so that they can determine the amount of investment taken in the future.

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