The Influence of Financial Ratio on Stock Return of Mining Companies Listed on IDX For The 2018-2021 Period

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***Abstract***

*The aim of this research is to determine the influence of Current Ratio (CR), Debt to Asset Ratio (DAR), and Earning per Share (EPS) on stock returns of coal sub-sector mining companies listed on the Indonesia Stock Exchange in 2018-2021. This type of research is a causal effect with a quantitative approach. The sample for this research is 84 sample data consisting of 21 financial reports for 4 years of research. The type of data in this research is secondary data. The analytical method in this research uses multiple regression analysis with CR research results partially having a positive and significant effect on stock returns, DAR partially having a negative and significant effect on stock returns, and EPS having no effect on stock returns and the results of the F test having a positive and significant effect .*

***Keywords :*** *Current Ratio (CR); Debt to Asset Ratio (DAR); Earning per Share (EPS); Stock Returns*

# INTRODUCTION

The meaning of the capital market is that it is a meeting place for sellers and buyers who trade long-term important securities, for example bonds and shares. In the capital market, investors can invest through ownership of various securities, both investments (shares) and loans (bonds), as well as various derivative instruments including rights, warrants and options. Investment in the capital market is an investment in financial assets which basically expects a return on the securities purchased. However, it should be noted that investment choices must always consider the expected level of profit on the one hand and the level of risk on the other hand (Pudiastuti & Pratiwi, 2021). The goal of investing in general is to make money. Specifically, the aim of investment is to improve welfare (Jogiyanto, 2022). Return is the profit obtained from a number of funds invested in a company (Sa’adah & Nur’ainui, 2020). According to (Hasibuan et al., 2023) three important things are needed in making decisions, including financial literacy, company profitability and financial behavior. One of the mining sector stocks that has received large returns is PT. Adaro Minerals (ADMR) with a return of 950% in 15 days when compared to similar stocks (Maghiszha, 2022). So based on this, researchers are interested in conducting research.

**2. LITERATURE REVIEW**

1. **Signalling Theory**

Signal theory is a step taken by management to provide investors with an idea of ​​how management views the company's opportunities in the future. The information presented by the company in the form of financial reports becomes a sign or announcement to investors regarding the company's financial condition which will later be used for investors' investment decisions in the company. Announcements about financial data and company conditions heard by investors will be processed and interpreted into good news or bad news. If the signal is positive, then the trading volume of the company's shares increases. However, on the other hand, if the signal is negative, then the trading volume of the company's shares decreases (Sudarno et al., 2022)

1. **Stock Return**

According to (Jogiyanto, 2022), return is the result obtained from an investment. There are two types of returns, namely expected returns and realized returns. The type of return used in this research is capital gain. Capital gain or capital gain is the profit you get from investing, in the form of the difference between the selling price and the buying price (Sunaryo, 2021).

1. **Liquidity**

The liquidity ratio is a ratio that shows the company's ability to fulfill all its short-term obligations or debts (Hartono, 2018). The liquidity ratio used in this research is the Current Ratio (CR). Current ratio is a ratio to measure a company's ability to pay short-term obligations or debts that are immediately due when they are collected in full (Kasmir, 2021)

1. **Solveency**

In a broad sense, it is said that the solvency ratio is used to measure a company's ability to pay all its obligations (Kasmir, 2021). Researchers use the Debt to Asset ratio (DAR) to measure solvency. According to (Sukamulja, 2019), DAR is a ratio used to measure the percentage of liabilities to a company's total assets.

1. **Market Value**

The market value ratio is a ratio used to compare the company's value in the eyes of investors (market value) with the company's value recorded in the financial reports (Sukamulja, 2019). To measure market value, researchers use earnings per share (EPS). According to (Sukamulja, 2019), EPS is a ratio used to measure how much of a company's net profit is contained in one outstanding share.

# 3. RESEARCH METHOD

This type of research is Causal Consequence (cause-effect). Quantitative researchers look at the relationship between variables and the object being studied more in the nature of cause and effect (Sugiyono, 2022). This research was conducted on coal sub-sector mining companies listed on the Indonesia Stock Exchange in the 2018-2021 period. The sampling technique in this research is a purposive method, namely a sampling technique with certain considerations (Sudaryana & Agusiady, 2022). The data sample used in this research came from 25 companies in the coal sub-sector mining sector, research started from 2018-2021. With the amount of data obtained for 21 x 4 years, it is 84 data.

# 4. RESULTS AND ANALYSIS

**RESULT**

1. Desciptive Statistics

According to (Ghozali, 2021), descriptive statistical analysis provides an overview or description of data that can be measured by the average (mean), minimum, maximum and standard deviation values ​​contained in the research.

Descriptive Statistics

|  |
| --- |
|  |
|  | Minimum | Maximum | Mean | Std. Deviation | Skewness | Kurtosis |
| Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Ln\_CR | -1.61 | 4.98 | .5640 | 1.05822 | 1.321 | .263 | 5.393 | .520 |
| Ln\_DAR | -2.41 | -.03 | -.8871 | .53283 | -.506 | .263 | -.062 | .520 |
| Ln\_EPS | -1532.13 | 6195.63 | 429.5519 | 1050.48648 | 3.737 | .263 | 16.712 | .520 |
| Ln\_RS | -1.37 | .69 | -.2389 | .67129 | -.630 | .661 | -.656 | 1.279 |

Based on the table above, it can be explained as follows:

1. Current Ratio (CR) In CR the mean value is -0.5640 and the standard deviation is 1.05822, the value for skewness is 1.321 and the kurtois is 5.393.
2. In DAR the mean value is -0.8871 and the standard deviation is 0.53283, the value for skewness is 0.506 and the kurtois is -0.062.
3. In EPS, the mean value is 429.5519 and the standard deviation is 1050.21035, the value for skewness is 3.737 and the kurtois is 16.712. 4. In Stock Returns, the mean value is -0.2389 and the standard deviation is -0.630 and the kurtois is -0.6656.
4. Classics Assumption Test
5. Normality Test

Normality aims to test whether in the regression model, confounding or residual variables have a normal distribution. The normality test in this study used the Kolmogorov-Smirnov test.

Normality Test Results Using Kolmogorov-Smirnov

|  |
| --- |
| **One-Sample Kolmogorov-Smirnov Test** |
|  | Unstandardized Residual |
| N | 84 |
| Normal Parametersa,b | Mean | .0000000 |
| Std. Deviation | 1.40636470 |
| Most Extreme Differences | Absolute | .083 |
| Positive | .083 |
| Negative | -.066 |
| Test Statistic | .083 |
| Asymp. Sig. (2-tailed) | .200c,d |

Based on the table above, it can be concluded from the Asymp Sig value. (2-tailed) is 0.200 which is greater than 0.05. So the data is normally distributed.

1. Multicollinearity Test

This test aims to test whether in the linear regression model a high correlation is found between the independent variables (Firdaus, 2021). The decision making method is if the tolerance value is <0.10, then multicollinearity occurs, and if the VIF value is >10 then multicollinearity occurs. The following are the results of the multicollinearity test:

Multicollinearity Test Result

|  |  |
| --- | --- |
| Model | Collinearity Statistics |
| Tolerance | VIF |
| 1 | (Constant) |  |  |
| Ln\_CR | .922 | 1.084 |
| Ln\_DAR | .904 | 1.106 |
| Ln\_EPS | .971 | 1.029 |

It can be seen in the table above that the tolerance value is greater than 0.10, and the VIF value is smaller than 10. So it can be concluded that there is no multicollinearity in the data.

1. Heteroscedasticity

The heteroscedasticity test aims to test whether in the regression model there is inequality of variance from the residuals of one observation to another. A good regression model is one where heteroscedasticity does not occur. One method of this test is to use a Plot Graph. Here are the results:

Heteroscedasticity Test Result



It can be seen that the points are spread randomly and spread both above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

1. Autocorrelation

In simple terms, regression analysis is to see the influence of the independent variable on the dependent variable. If the value of Asymp Sig. or the p-value is greater than α 0.05 which states that the series of residuals is random or there is no correlation between the observed residuals or there is no autocorrelation (Yamin, 2021). The following are the results of the autocorrelation test using the run test:

Autocorrelation Test Result

|  |
| --- |
| **Runs Test** |
|  | Unstandardized Residual |
| Z | 1.658 |
| Asymp. Sig. (2-tailed) | .097 |
| a. Median |

Based on the table above, it can be concluded that the Asymp Sig (2-tailes) value is 0.97, which is greater than 0.5, which means there is no autocorrelation

1. Multiple Linear Regression

Regression analysis aims to measure the magnitude of the influence of an independent variable (free variable) on the dependent variable. The following are the results of multiple regression analysis. The following are the multiple regressions in this research:

Multiple Linear Regression

|  |
| --- |
| **Coefficientsa** |
| Model | Unstandardized Coefficients |
| B | Std. Error |
| 1 | (Constant) | -1.700 | .150 |
| Ln\_CR | .770 | .078 |
| Ln\_DAR | -.518 | .140 |
| Ln\_EPS | 1.781E-5 | .000 |

Stock Return (Y): α -1,700 + 0,770 X1 - 0,518 X2 + 1,78100000 X3 + 0,150 e

1. The constant value (α) is -1,700, which means that if the independent variable is considered constant then the average return is -1,700 certain units.
2. The CR regression coefficient is 0.770, which means that every 1% increase in CR will result in a stock return of 0.770 certain units.
3. The DAR regression coefficient is -0.518, which means that every 1% increase in DAR will reduce returns by -0.518 certain units.
4. T TEST

According to (Ghozali, 2021), the T test is a useful test to show the extent of the influence of the independent variable on the dependent variable with a significance value < α 0.05. Following are the results of the T test:

T Test Result

|  |
| --- |
| **Coefficientsa** |
| Model | t | Sig. |
|
| 1 | (Constant) | -11.343 | .000 |
| Ln\_CR | 9.907 | .000 |
| Ln\_DAR | -3.692 | .000 |
| Ln\_EPS | .305 | .761 |

To obtain the ttable value, use the following formula (α/2 ; n-k-1) the application is as follows (0.025 ; n (number of sample data) 84 – 3 K (number of independent variables) – 1 becomes (0.025 ; 80) 80 is the value df to find the Ttable value in the T distribution table. Then the result of the ttable value is 1.990. The following is an explanation of the table above:

1. CR has a positive and significant influence on stock returns with a significance value of 0.00 which is smaller than 0.05. The tcount value in CR is 9.907 which is greater than ttable.
2. DAR has a negative and significant influence on stock returns with a significance value of 0.00 which is smaller than 0.05. The t value in CR is -3.692 which is smaller than the t table of 1.990.
3. EPS has no influence on stock returns because the significance value is 0.761 which is greater than 0.05, and the t value for EPS is 0.305 which is smaller than the t table of 1.990.

5. F Test

According to (Ghozali, 2021), Analysis of variance is a method for testing the correlation of one dependent variable (metric scale) with one or more independent variables. So the F test is an indication to look at the partial t test and not the simultaneous test. The decision is that if the calculated F value is greater than F table and the significance value is smaller than alpha 0.05 then the hypothesis is accepted, if the calculated F value is smaller than F table and the significance value is greater than alpha 0.05 then the hypothesis is rejected.

F Test Result

|  |
| --- |
| **ANOVAa** |
| Model | F | Sig. |
| 1 | Regression | 47.655 | .000b |
| Residual |  |  |
| Total |  |  |

To obtain the Ftable value, use the following formula (α/2 ; n-k-1) the application is as follows (0.025 ; n (number of sample data) 84 – 3 K (number of independent variables) – 1 becomes (0.025 ; 80) 80 is the value df to find the distribution value in Ftable. So the result of the Ftable value is 2.719. Thus, the results of the F test can be concluded as follows. It can be seen that the significance value in the f test is 0.00 which is smaller than 0.05 and the calculated f value is 47.655 which greater than ftable 2.719.

The results of the F test show that the Fcount value is 47.655 and the Ftable value is 2.179 with the significance of the F test being 0.000. This shows that Fcount>Ftable with a significance value of 0.000<0.05. So from the explanation above it can be concluded that all independent variables have a significant positive effect on the dependent variable. The results of this test show that H4 is accepted, which means the Current Ratio (CR), Debt to Asset Ratio (DAR), and Earning Per Share (EPS) have a significant positive effect on Stock Returns.

1. Coeffisien of Determination

According to (Ghozali, 2021), Adjusted R Square or Coefficient of Determination is used to find out how big the percentage contribution of the influence of the independent variables together is on the dependent variable. The following are the results of the coefficient of determination (Adjusted R Square):

Coeffisien of Determination

|  |
| --- |
| **Model Summaryb** |
| Model | R | R Square | Adjusted R Square |
| 1 | .831a | .691 | .676 |

Based on the table above, it can be concluded that the Adjusted R Square value is 0.676, which means that 67.6% of the variability in the dependent variable can be explained by independent variability. The remaining 32.4% is influenced by other variables not examined in this research.

**ANALYSIS**

1. The Influence Liquidity on Stock Return

In this research, the ratio used to measure liquidity is the Current Ratio (CR). According to the results of the T test, it is known that the Current Ratio (CR) has a positive and significant effect on stock returns in coal sub-sector mining companies listed on the Indonesia Stock Exchange in the year of observation. 2018-2021, with a significance value of 0.00 which is smaller than 0.05, and a tcount value of 9.907 which is greater than the ttable value of 1.990.

Based on signaling theory, management's step to provide information about the company's financial condition is through financial reports. One of the data contained in financial reports is about the company's liquidity. Liquidity is a ratio that describes the company's liquidity level. If liquidity is high then the company is said to be liquid, if the level of liquidity is low then the company is said to be illiquid. Use of short-term funding sources for short-term activities and use of long-term funding sources for long-term activities. This is a necessity in the financial management of a company. Liquidity problems will arise starting from the use of funds that are not in accordance with the source. Starting with liquidity problems and ultimately resulting in the risk of company bankruptcy (Harahap & Hafizh, 2020)

Therefore, if liquidity is high, the company will not only be able to fulfill its short obligations but will also be able to maximize business opportunities which will increase profits for the company and be able to maximize returns to investors. The results of this research are supported by the results of previous research by (Abdurrohman et al., 2021), which shows that (CR) has a positive effect on stock returns. However, this research is also not in line with research (Pradana & Maryono, 2022), which explains that (CR) has no effect on stock returns.

1. The Influence Solevency on Stock Return

In this research, the solvency ratio used in this research is Debt to Asset Ratio (DAR). Based on the results of the T test, it is known that DAR has a negative and significant effect on stock returns in coal mining sub-sector companies listed on the Indonesia Stock Exchange in the observation period 2018- 2021, with a significance value of 0.00 < 0.05 and a tcount value of -3.692 which is smaller than the ttable value of 1.990.

The solvency ratio is a ratio that describes the company's ability to pay off long-term obligations if the company is liquidated. The smaller this ratio is, the better, because long-term liabilities are less than capital and/or assets, and large long-term debt also has the impact of high interest expenses. (Sianturi & Purba, 2021). The greater the assets owned by a company funded by debt, the more difficult it will be for the company to obtain funding from debt because it is considered to be less able to cover its debts (Anita et al., 2023).

Therefore, if the company is unable to fulfill all its obligations, it will have a negative impact on the company's health condition and will also affect the returns generated by the company to not be optimal. In accordance with Signaling Theory, all information presented by company management is about the company's financial condition in generating benefits, profits and opportunities for investors, in this case all information received by investors will be interpreted as positive or negative signals before deciding to invest in related companies. The results of this research are strengthened by previous research by (Tarrau et al., 2020), with research results showing that DAR has a negative and significant effect, but the results of this research are not in line with (Ristyawan, 2019), which explains that (DAR) has a positive and significant effect. significant to stock returns.

1. The Influence Market Value on Stock Return

According to (Kasmir, 2021), the earnings per share ratio or also called the book value ratio is a ratio to measure management's success in achieving profits for shareholders. A low ratio means that management has not succeeded in satisfying shareholders, whereas with a high ratio, shareholder welfare increases. In other words, a high rate of return. The market value ratio used to measure the market value of a company in this research is Earnings per Share (EPS). It is known that the results of this research show that (EPS) has no influence on stock returns of coal sub-sector mining companies listed on the Indonesia Stock Exchange in observation period 2018-2021, because the significance value is 0.761 which is greater than 0.05 and the tcount value is 0.305 which is smaller than the ttable value, namely 1.990.

The results of this research show contradictory results to theory. This is because EPS do not always have a straight line influence on stock returns because stock returns are influenced by various external factors, including market conditions, interest rate policies, changes in the economy, and changes in industry. Apart from that, psychological factors and market sentiment can also play a role in determining stock prices. EPS cannot control for these factors, so stock returns may be influenced more by external factors than by EPS. Therefore, it is necessary to look at other ratios as a tool to assess the feasibility of investing which are also presented in the financial reports by company management. The results of this research are in line with research conducted by previous researchers namely (Merliyana & Kusumah, 2018), because the results of this research shows that (EPS) has no effect on stock returns.

1. The Influence Liquidity, Solvency, and Market Value on Stock Return

According to (Ghozali, 2021), Analysis of variance is a method for testing the relationship between one dependent variable (metric scale) and one or more independent variables. So the F test is an indication to look at the partial t test and not the simultaneous test. Based on the results of the F test, namely by testing all the independent variables CR, DAR, and EPS against the independent variable Stock Return, it is known that the results of the F test have a significant positive influence with a significance value of 0.003 which is smaller than 0.05 and a calculated f value of 5.103 which is greater from ftable 2,719.

# 5. CONCLUSION

Based on the results of the analysis and discussion of all the hypotheses that have been tested, it will be concluded as follows:

1. Current Ratio (CR) has a positive and significant influence on stock returns of coal sub-sector mining companies listed on the Indonesia Stock Exchange in 2018-2021.
2. Debt to Asset ratio (DAR) has a negative and significant influence on stock returns of coal sub-sector mining companies listed on the Indonesia Stock Exchange in 2018-2021.
3. Earning per Share (EPS) has no effect on share returns of coal sub-sector mining companies listed on the Indonesia Stock Exchange in 2018-2021.
4. Current Ratio (CR), Debt to Asset ratio (DAR), Earning per Share (EPS), have a positive and significant effect on share returns of sub-mining companies

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