

THE EFFECT OF SOLVENCY AND WORKING CAPITAL TURNOVER ON PROFITABILITY IN THE MINING SECTOR LISTED ON IDX FOR THE 2017-2020 PERIOD

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ABSTRACT

This study aims to determine the effect of Solvency and Working Capital Turnover on Profitability in the mining sector listed on the Indonesia Stock Exchange in 2017-2020. The population in this study used all mining companies on the IDX as many as 52 companies. The sampling technique used was purposive sampling. The analytical method used for this study uses the STATA test, namely: descriptive statistical test, model selection test, R2 test, t test and f test. The results showed that the Solvency had a significant positive effect on profitability. Working Capital Turnover has no significant negative effect on profitability. While the Solvency and Working Capital Turnover together have a positive and significant effect on profitability.

Keywords : Solvency, Working Capital Turnover, Profitability

INTRODUCTION

During the COVID-19 pandemic, many companies around the world have been affected. One of them is a mining company. Like companies in the coal sub-sector, there are several factors that lead to lower production than in previous years, including lower demand or lower coal consumption, which will inevitably lead to lower prices. On the other hand, limited access and mobility of employees and logistics in mining companies makes them difficult and a major obstacle in various processes. Many companies are losing money.

A company can be said to be healthy if the company can survive in any kind of economic situation, which can be seen from its ability to fulfill financial obligations and can continue to carry out operational activities and develop its business. To measure the company's strengths and weaknesses, especially in the financial sector, an analysis of financial statements is carried out which of course is not only useful for the interests of the company but can also be used for outsiders. Financial statements are information that describes the financial condition of a

company, and more detailed information can be used as a description of the company's financial performance. The survival of the company is influenced by many things, one of which is the profitability ratio of the company itself.

Investors will usually invest by looking at the profitability analysis. Profitability can be interpreted as the results obtained by the management's efforts on the funds invested by the owner of the company. Therefore the company must be able to maintain its profitability in a stable condition so that the company can carry on its business. Return On Assets is the total return on net income to equity and is expressed as a percent. ROA is used to measure the ability of a business entity to generate profits by capitalizing on equity that has been invested by shareholders.

Based on the reflection and explanation above, the writer is interested in conducting a research entitled: "The Effect of Solvency and Working Capital Turnover on Profitability in the Mining Sector Listed on the Indonesia Stock Exchange for the 2017-2020 Period".

THEORETICAL BASIS

Profitability

According to Kasmir (2017: 196) Profitability Ratio is a ratio to assess the company's ability to seek profit. This ratio also provides a measure of the effectiveness of a company. This is indicated by the profit generated from sales and investment income. The point is that the use of this ratio shows the efficiency of the company. The indicator used in this study is the Return On Asset (ROA) formula. The formula used in measuring Return On Assets (ROA) is as follows:

$$ROA = \frac{\text{Profit After Tax}}{\text{Assets}} \times 100\%$$

Solvency

According to Kasmir (2017:151) Solvency Ratio is a ratio used to measure the extent to which company assets are financed with debt or it can be said that the solvency ratio is used to measure the company's ability to pay all its obligations, both short term and long term if the company is dissolved. The indicator used in this study is the Debt to Asset Ratio (DAR) formula. To measure the debt ratio using the formula:

$$DAR = \frac{\text{Debt}}{\text{Assets}} \times 100\%$$

Working capital turnover

According to Kasmir (2017: 182) Working capital turnover is one of the ratios to measure or assess the effectiveness of the company's working capital during a certain period. This means how much working capital rotates during a period or in a period. To measure this ratio we compare sales with working capital or average working capital. The formula for working capital turnover is as follows:

$$WCT = \frac{\text{Sales}}{(\text{Current Assets} - \text{Current Liabilities})}$$

HYPOTHESES

- H₁ : Solvency has a effect on profitability in the mining sector
- H₂ : Working capital turnover has a effect on profitability in the mining sector
- H₃ : Solvency of Working Capital Turnover affects Profitability in the Mining Sector

METHOD

This research was conducted on the Indonesia Stock Exchange using the website address www.idx.co.id in mining sector companies using data from the 2018-2020 annual financial statements.

The type of data used in this research is quantitative research. This quantitative uses the associative form which asks the relationship between a variable and another variable. This study uses secondary data, namely data obtained by other parties in this study in the form of data on manufacturing companies in the mining sector listed on the Indonesia Stock Exchange in 2018-2020.

The population used in this study are all mining sector companies listed on the Indonesia Stock Exchange (IDX) in the period 2018 to 2020. The sample in this study was selected based on a purposive sampling technique where this study was not conducted on the entire population, but focused on the target, namely by Certain criteria.

This study uses a measuring instrument, namely STATA 14 (2017) where to find out descriptive statistics, model selection test, regression test, R² test, t test and f test.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 4.1. Descriptive Statistical Analysis

Variabel	Mean	Standar Deviasi	Minimum	Maksimum
Y	0.1096061	0.0991368	0.0020272	0.4555789
X ₁	0.4215845	0.149452	0.0880397	0.6606712
X ₂	1.735938	2.080588	0.4660882	10.07431

Source: Results of data processing, STATA output (2017)

From 76 observations, it can be seen that the average value of Return On Assets (ROA) during the period 2017 to 2020 is 0.1096 with a standard deviation of 0.0991 percent. The average value of the Debt Asset Ratio (DAR) during the period 2017 to 2020 is 0.4215 with a standard deviation of 0.1494 percent. The average value of Working Capital Turnover (WCT) during

the period 2017 to 2020 is 15.8042 with a standard deviation of 65.7776 percent.

Model Selection Test

1. Test Chow-Test/ F-test

Table 4.2. Chow Test Results

Effect Test	Prob
F(18, 55)	5.86
Prob > F	0.0000

Source: Results of data processing, STATA output (2017)

H_0 : Prob>F is greater than 0.005, then the pooled least square model is used

H_1 : Prob>F is less than 0.005, then the fixed effect model is used

Reject H_0 and H_1 are accepted because Prob>F of 0.000 is smaller than the value of (0.005), so the conclusion is using the fixed effect model.

2. Lagrange Multiple Test

Table 4.3. Lagrange Multiple Test Results

Effect Test	Prob
chibar2 (01)	32.16
Prob > chibar2	0.0000

Source: Results of data processing, STATA output (2017)

H_0 : Prob>chibar2 is greater than 0.005, then the pooled least square model is used

H_1 : Prob>chibar2 is less than 0.005, then the random effect model is used

Reject H_0 and H_1 are accepted because Prob>chibar2 of 0.000 is smaller than the value of (0.005), so the conclusion uses a random effect model.

3. Hauman Test

Table 4.4. Hausman Test Results

Effect Test	Prob
chi2 (2)	0.00
Prob>chi2	1.0000

Source: Results of data processing, STATA output (2017)

H_0 : Prob>chi2 is greater than 0.005, then the fixed effect model is used

H_1 : Prob>chi2 is less than 0.005, then the random effect model is used

Reject H_0 and H_1 are accepted because Prob>chi2 of 1.0000 is greater than the value of (0.005), so the conclusion is using a random effect model.

Regression Test

Table 4.5. Regression Test Results

Variabel	Coef.	Std. Err.	T	P<[z]
X ₁	-0.1861084	0.0910974	-2.04	0.041
X ₂	0.0048398	0.0039117	1.24	0.216
_cons	0.1796649	0.0423611	4.24	0.000

Source: Results of data processing, STATA output (2017)

$$Y = 0.1796 - 0.1861X_1 + 0.0048X_2 + e$$

All variables X affect Y

Variables X₁ and X₂ have a negative effect on Y

Variable X₃ has a positive effect on Y

R² Test

Table 4.6. Random Effect Regression (R² Test)

R-square	
Within	0.0351
Between	0.1675
Overall	0.1243

Source: Results of data processing, STATA output (2017)

The value of R Square (R²) is 0.1243 (12.43%) the independent variable is able to explain or describe profitability. While the remaining 87.57% is explained by other variables.

F Statistic Test (Simultaneous)

Table 4.13. Regression (F Test)

Effect Test	Prob
Wald chi2 (2)	5.24
Prob>chi2	0.0329

Source: Results of data processing, STATA output (2017)

Based on the table above, the results of the F test are known that the Fcount value is 5.24 with a probability value of 0.0038 while the Ftable value is known (2.73) of 3.122 (attachment below) with a significance level of 5% or 0.05. This proves that the Fcount value of 5.24 is greater than Ftable 3.122 and the probability value of 0.0329 is less than the significant level of 0.05. So it can be concluded that H₄ is accepted because all independent variables together

(simultaneously) have a positive and significant effect on the dependent variable, namely profitability.

Test Statistics t (Partial)

Table 4.14. Regression (T Test)

Variabel	Coef.	Std. Err.	T	P<[z]
X ₁	-0.1861084	0.0910974	-2.04	0.041
X ₂	0.0048398	0.0039117	1.24	0.216
_cons	0.1796649	0.0423611	4.24	0.000

Source: Results of data processing, STATA output (2017)

Based on the table above, the results of regression analysis with panel data are known that the solvency (X₁) has a tcount value of -0.1861 < from the ttable value of 1.666 and a prob value. solvency t is 0.041 < 0.05, meaning that solvency (X₁) is partially proven to have a positive and significant effect on profitability.

Working Capital Turnover (X₂) has a tcount value of 0.0048 < from a ttable value of 1.666 and a prob value. t working capital turnover is known to be 0.216 > 0.05, meaning that working capital turnover (X₂) is partially proven to have a negative and insignificant effect on profitability.

DISCUSSION

The partial test results show that the solvency has a tcount value of -0.1861 < from the ttable value of 1.666 and a prob value. solvency t is 0.041 < 0.05, meaning that solvency (X₁) is partially proven to have a positive and significant effect on profitability. This shows that the increase in solvency (debt to asset ratio) is followed by an increase in profitability.

Partially, this study shows that working capital turnover has a tcount value of 0.0048 > from a ttable value of 1.666 and a prob value. t working capital turnover is known to be 0.216 > 0.05, meaning that working capital turnover (X₂) is partially proven to have a negative and insignificant effect on profitability.

Simultaneous test results show that the independent variables consisting of solvency and working capital turnover simultaneously affect the dependent

variable, namely profitability. It can be seen from the estimation table of the panel data regression model that the Fcount value of 5.24 is greater than Ftable 3.122 and the probability value of 0.0329 is less than the significant level of 0.05.

CONCLUSION

Solvency (X₁) partially proved to have a positive and significant effect on profitability. So H₁ is accepted. Working capital turnover (X₂) partially proved to have a negative and insignificant effect on profitability. So H₂ is rejected. The independent variables, namely Solvency, Liquidity and Working Capital Turnover, simultaneously affect the dependent variable, namely Profitability. So H₃ is accepted.

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