



Analysis of factors affecting cash holding in mining companies on the IDX

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ARTICLE INFO

Article history:

Received Jun 16 2024
Revised Jun 30, 2024
Accepted Jul 24, 2024

Keywords:

Cash Holding;
Firm Size;
Net Working Capital.

ABSTRACT

This study was conducted to examine the influence of net working capital and firm size, on cash holding in mining companies on the Indonesia Stock Exchange in 2018-2022. The sampling technique uses the purposive sampling method and data processing using SPSS software. In this study, there were 54 companies that were sampled from 120 companies and analyzed by multiple linear regression. The results of this study simultaneously show that firm size and net working capital have a negative but significant effect on cash holding, firm size has a negative and significant correlation on cash holding, while net working capital has a negative but not significant effect on cash holding.

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1. INTRODUCTION

The current development of the world economy is very rapid so that it can trigger an increase in competition between companies, this situation can spur companies to improve their performance in order to be able to compete and maintain the sustainability of their companies. The more the Company develops, the Company will get maximum profits. With maximum profits, the company will receive additional cash that will function to finance the company's operational and transactional activities. Cash is a form of asset that is capable and also the easiest to use immediately. By holding cash in a company, it is known as cash holding. The existence of cash holding in a company can be said to be very important, because all business activities of the company, such as daily operations and transactions, are highly dependent on the availability of cash. The importance of holding cash will also be felt when the company begins to experience difficulties in obtaining funds from external parties, which can put the company in a situation of financial difficulties that can result in bankruptcy. Therefore, a company needs to practice good cash management and needs to be applied in cash holding arrangements. The company must be able to maintain cash availability so that it remains balanced and in accordance with the company's needs. According to (Ullah et al., 2016) there are three motivations for companies to save cash, namely, transactional motives, preventive motives, and speculative motives. The transactional motive is to hold cash for the purpose of making repayments on transactions. The preventive motive is to save cash to protect the company in the event of an emergency or contingency situation. Finally, the

motive for speculation is to save cash to take advantage of unexpected investment opportunities to make a profit (Santini & Baskara, 2018). Cash holding in a company can be influenced by several factors such as net working capital and firm size (Gionia, 2020). Net working capital is also known as net working capital, working capital is the capital used to carry out the company's operational activities, firm size is a benchmark or scale used to measure the size of a company (Grifanny, 2020). According to (Pamungkas & Surwanti, 2021) explained about company options when using funding sources, companies tend to prioritize internal funds over external funds. According to (Chandra & Susanti, 2024) this theory explains that there are three sources of funding, the first of which starts from the profit balance. The company will use the second option, namely debt, if the internal funds do not meet to finance the company's investment. If the company feels that its debt has become too much, they continue to finance their investment in the final option, namely through the issuance of equity. So, according to pecking order theory, companies will prioritize financing from low-risk or risk-free to high-risk financing.

According to (Modigliani & Miller, 1958) this theory explains that there is an ideal level of holding cash. According to (Suci & Susilowati, 2021), this theory measures the availability of cash at an ideal level, by reviewing the costs associated with storing cash and the profits earned by the company. According to (Saputri & Kuswardono, 2019), the ideal size of holding cash can be achieved by considering marginal costs and marginal benefits. The marginal cost of keeping a company's cash can take the form of a short-term return on investment that is lost as a result of transactional motives and preventive motives. Marginal benefits refer to the impact of reducing cost increases due to increased external funds or rising costs due to the liquidation of various assets as the company avoids financial problems through an ideal investment policy. According to (Panalar & Ekadjaja, 2020), cash holding is considered cash and cash equivalents that can be easily converted into cash. According to (Irwanto & Agustina, 2019) cash holding is cash owned by the company to meet the company's operational needs. According to (Gionia, 2020) cash holding is defined as cash that exists and can be invested in the form of physical assets and distributed to investors. Storing cash is useful for daily operational activities and company transaction activities. According to (Saputri & Kuswardono, 2019) firm size is a measure that can be used to classify the size of a company in several ways, such as by total assets, stock market value, and so on. According to (Romadhoni et al., 2019) large companies are usually known by many investors and do a lot of cooperation with other companies, so it is likely to be easier to get additional funds. On the other hand, if a small company will have difficulty obtaining funds from external parties, because investors lack confidence in the company's success. In running a company's business, working capital is needed in carrying out the company's business operational activities. Net Working Capital is also known as net working capital. (Kasmir, 2017) argues that in carrying out operational activities of companies, working capital will be needed by the company. Investments made in current assets or short-term assets such as cash, receivables, securities, securities, and so on can be interpreted as working capital. Relationship between variables are firm size with cash holding. According to (Shinta Theresia, 2020), firm size is a measure used to determine the size of a company, both large and small. Firm size can be measured in several ways, including total assets, total sales, stock market value and so on. According to (Sari et al., 2019), the larger the size of the company, the easier it is to access the capital market and money market for the company to get funds, which means that large companies are more productive, so their company performs better than small companies. This, allows large companies to hold more cash than small companies. According to (Gionia, 2020), large companies tend to keep more cash, because they have higher short-term costs. As a result, large companies hold more cash than small companies. Net working capital is also known as net working capital, which is the capital used in carrying out the company's operational activities. If a

company has a high level of net working capital, it can also be said that the company's cash is high. In carrying out the company's operational activities, net working capital is needed. Working capital can be a quick substitute for cash or cash because it is easy to liquidate, so if the level of net working capital is in a large company, the company will have less cash. Working capital can also be a guarantee for the company when in the future the company experiences events that may be detrimental to the company so that there are difficulties in the company's financial problems, then working capital can be easily used as cash when the company needs it. (Wulandari & Damayanti, 2022) obtained the results that there was no significant negative influence of net working capital on cash holding. (Sethi & Swain, 2019) and with the support of (Suherman, 2017) obtained the results that net working capital has a positive influence on cash holding. (Juliani et al., 2022) and supported by previous research conducted by (Mesfin, 2016) provided the results of net working capital having a significant negative effect on cash holdings. Based on the results of the research by (Monika, 2022) it shows that firm size has a positive and significant effect on cash holding. The findings are different from (KWAN & Lau, 2020), who said that firm size has a negative and significant correlation with cash holdings. In contrast to the research conducted by (Natalia & Hastuti, 2020), it is proven that firm size does not have a correlation with cash holding. Firm size has a positive and significant influence on cash holding (Zefanya Elnathan & Susanto, 2020). Based on research conducted by, (Ridha et al., 2019) there is a positive influence between net working capital and cash holding. (Phanjaya, 2021) gave the results of net working capital having a significant negative effect on cash holding. When a company needs funds, net working capital will easily and quickly become cash for the funding that the company needs (Awaluddin et al., 2020). So companies with large net working capital will have less cash holdings .

2. RESEARCH METHOD

This research is quantitative with secondary data. Each data on mining companies listed on the Indonesia Stock Exchange (IDX) in the 2018-2022 period was collected. The data is in the form of the company's annual report obtained from the official website, namely www.idx.co.id. There are 54 companies as a sample in this research that meet the criteria by taking samples using the purposive sampling technique, with the following criteria: a) Mining Companies listed on the Indonesia Stock Exchange (IDX) in 2018-2022; b) Mining Companies that present financial statements as of December 31 during 2018-2022; c) Mining Companies earn profits consecutively in 2018-2022; d) Mining companies that use Rupiah (IDR) in their financial statements. The total number of valid samples is 54 companies.

3. RESULTS AND DISCUSSIONS

The summary of the operationalization of the variables in this study is:

Table 1. Summary of Variable Operationalization

Variabel	Indikator	Skala	Sumber
Cash Holding	$CH = \frac{\text{Cash and cash equivalents}}{\text{Net Assets}}$	Ratio	Romadhoni dkk. (2019)
Firm Size	$\text{Size} = \ln(\text{Net Assets})$	Ratio	Tahir et al. (2020)
NetWorking Capital	$NWC = \frac{(\text{Net Current Assets} - \text{Cash and Cash Equivalents})}{(\text{Total Assets} - \text{Cash and Cash Equivalents})}$	Ratio	Tahir et al. (2020)

In this study, a Descriptive Statistics test, a classical assumption test was also carried out to select a panel data model suitable for this research using the SPSS test. There is also a hypothesis test with the Adjusted R-square test, the F test and the T test.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Net Working Capital	54	-244817319879	276007601003	8790150033.30	124677674614.170
Firm Size	54	25609.00	28608.00	27316.9444	776.98370
Cash Holding	54	3.00	1605.00	475.5741	439.33937
Valid N (listwise)	54				

3.1 Statistical Test Results

Based on the statistical tests carried out, cash holding shows a mean value of 475.5741, a standard deviation of 439.33937. Cash holding also has a maximum value of 1605.00 and a minimum value of 3.00. Firm size (SIZE) has a mean of 27316.9444, standard deviation is 776.98370. FirmSize has a maximum value of 28608.00 and a minimum value of 25609.00. Net Working Capital has a mean of 8790150033.30, a standard deviation of 124677674614.170, has a maximum value of 276007601003 and a minimum value of -244817319879.

3.2 Normality Test

The normality test is a test conducted with the aim of assessing the distribution of data in a group of data or variables, whether the distribution of the data is normally distributed or not. Normality is useful for determining whether the data that has been collected is normally distributed or taken from a normal population. The classic method of testing the normality of a data is not so complicated. Static normality test that can be used include Chi Square, Kolmogorov Smirnov, Lilliefors, Shapiro Wilk, Jarque Bera.

Table 3. Normality test

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			54
Normal Parameters ^{a,b}	Mean		.0000000
Most Extreme Differences	Std. Deviation		400.70563256
	Absolute		.109
	Positive		.109
	Negative		-.055
Test Statistic			.109
Asymp. Sig. (2-tailed) ^c			.166
Monte Carlo Sig. (2-tailed) ^d	Sig.		.112
	99% Confidence Interval	Lower Bound	.104
		Upper Bound	-.120

a. Test distribution is Normal.

b. Calculated from data

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1290450862.

Next is to conduct a classical assumption test. The results of the normality test for this research show a probability value of 0.166 > 0.05, so it can be concluded that the data of this research is normally distributed.

3.3 Multicoleniaritas Test

Table 4. Multicoleniaritas Test

Coefficients ^a		
	Collinearity Tolerance	Statistic VIF
Net Working Capital	.962	1.040
Firm Size	.962	1.040

a. Dependent Variable: Cash Holding

According to Ghozali (2016), if the VIF value is < 10 or the Tolerance value > 0.01, then it is said that there is no multicollinearity.

3.4 Heteroscedasticity Test

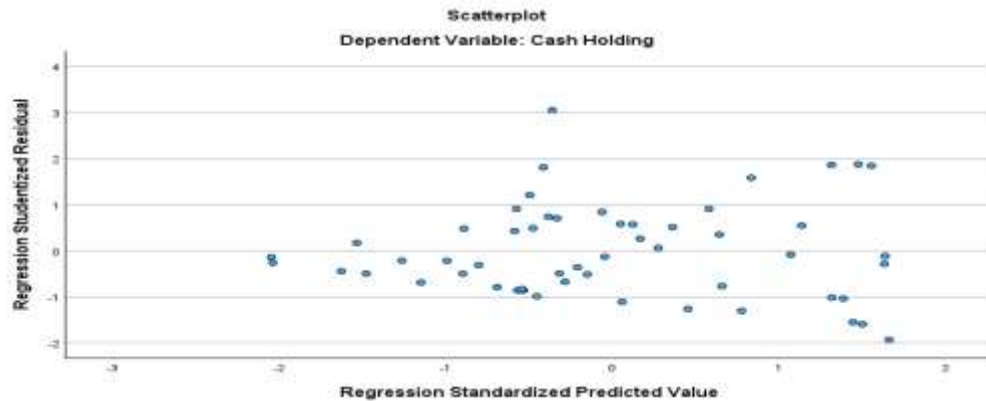


Figure 1. Test regression standarized

Next, a Heterokedasticity test was carried out where based on the graph above the points spread above and below the number 0 on the Y axis, no heterokedasticity occurred.

3.5 Autocorrelation Test

Table 5. Autocorrelation Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.410a	.168	.136	408.48705	1.736

a. Predictors: (Constant), Firm Size, Net Working Capital

Based on the autocorrelation test, the Durbin Watson value is 1.736, which means that no autocorrelation occurs $DU < D < 4 - DU = 1,638 < 1,736 < 2,362$

3.6 Multiple Linear Regression Analysis Test

Table 6. Multiple Linear Regression Analysis Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4021.235	2013.358		1.997	.051
	Net Working Capital	1.047E-9	.000	.297	2.282	.027
	Firm Size	-.130	.074	-.230	-1.767	.083

a. Dependent Variable: Cash Holding

Based on the results of the data above, the multiple regression equation can be described, namely: $Y = 4021,235 + 1,047 \cdot 10^{-9}X_1 - 0,130X_2 + e$

From the equation above, it can be explained that the value of the constant a has a positive value of 4021.235, meaning that it shows a unidirectional influence between independent and dependent variables. This shows that if all independent variables, namely Net working capital, are valued at 0 percent or do not change. The regression

coeffiect value for Variable X1, namely net working capital, is 1.047. This value shows a positive and directional influence between the variables net working capital and cash holding. The regression coefficient value for the X2 variable, namely Firm Size, is -0.130. This value shows a negative and opposite influence between the Firm Size variable and Cash Holding.

The test of the determination coefficient (adjusted) is 0.104350 in this study. These results imply that the variables firm size can explain the effect on cash holding by 10.4350% and the remaining 89.565% explained by other variables that are not used in this study. The Goodness of Fit test indicated by the Prob(F-statistic) value is 0.008936. This result means that this model is suitable for use in this research to test the effect firm size on cash holding.

a. F Test

Table 7. F Test
Anova^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1720065.994	2	860032.997	5.154	.009 ^b
Residual	8509945.210	51	166861.671		
Total	10230011.204	53			

a. Dependent Variable: Cash Holding

b. Predictors: (Constant), Firm Size, Net Working Capital

The results of the F Test above explain that F Calculate has a Significant value of 0.009 < 0.05 which means that simultaneously the independent variables, namely Net Working Capital and Firm Size, have a significant influence on the dependent variable, namely Cash Holding.

b. T Test

Table 8. T test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4021.235	2013.358		1.997	.051
Net Working Capital	1.047E-9	.000	.297	2.282	.027
Firm Size	-.130	.074	-.230	-1.767	.083

a. Dependent Variable: Cash Holding

The results of the data processing above explain that the independent net working capital variable has a significant value < 0.05, which is 0.027. This explains that the net working capital variable has a significant effect on cash holding. However, it is inversely proportional to the X2 firm size variable which has a value of > 0.05, which is 0.083, which means that it does not have a significant influence on the Y variable, namely cash holding.

c. Coefficient R Square

Table 9 . Coefficient R Square

R square
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410 ^a	.452	.136	408.48705

a. Predictors: (Constant), Firm Size, Net Working Capital

b. Dependent Variable: Cash Holding

Based on the results of this study, simultaneously firm size and net working capital have a positive and significant effect on cash holding, Net Working Capital has a significant positive effect on cash holding. Large or small firm size does not have a

significant influence on cash holding, can be caused by proxies on firm size and cash holding because the use total assets, so that an increase in total assets, so that an increase in total assets based on the proxy used can increase the size of the company, but also cause cash ownership to decrease. Firm size does not have a significant positive effect on cash holding. Positive relationships are beneficial in valuing companies, as larger companies are easier to trust when compared to companies that have smaller company sizes. Net working capital does not have a significant negative effect on cash holding. When unexpected conditions occur such as the occurrence of an economic crisis, current assets owned by companies other than cash cannot be easily used as cash (Muinatah & Sudirgo, 2024). Therefore, there is no influence between net working capital and cash holding. If cash increases, net working capital will also increase. The higher the level of cash holding. This is because net working capital plays a good role as a good cash substitution, so if the company needs cash at any time for the smooth running of the company's activities, then the net working capital can be used as cash quickly. Companies with small sizes also do not necessarily have difficulty getting additional funds from outside parties. Net working capital has a positive and insignificant influence on cash holding. If cash increases, net working capital will also increase. The higher the level of cash holding (Eka & Salim, 2024).

4. CONCLUSION

This research was conducted to determine the factors that affect cash holding in mining companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The independent variables are Net Working Capital and firm size. Based on the results of this study, firm size has an insignificant effect on cash holding. However, Net Working Capital has a significant effect on cash holding. There are several limitations in this research. First, the independent variables in this study only include firm size and net working capital. For further research, it would be better if the free variable could be multiplied again by adding other factors that are suspected to have an effect on cash holding. Second. The research period was limited to 5 years from 2018 to 2022. For the future, the research period should be extended to more than 5 years. Third, the sample of companies in this research is limited to mining companies listed on the IDX. In the next research, it is recommended to add the company sector that is used as a research sample, for example the financial sector and so on.

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