Effect of Working Capital, Debt Maturity, Sales and Tangibility on Investment Efficiency Listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 Period

Nelli Novyarni[1], Dwi Christiantoro[2], Reni Harni[3]
[1,2] Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta
[3] Universitas Sali Al-Aitaam, Bandung
e-mail: sweetynovyarni@gmail.com

Abstract

The research objective is to analyze variables such as working capital, debt maturity, sales and tangibility that affect investment efficiency. Investment is an activity of placing funds in one or more types of assets for a certain period to earn income. Factors that reflect company performance are the financial statements presented in the annual report. Underinvestment occurs when an investment company requires the use of large amounts of debt. Companies with overinvestment are companies that are in the mature stage with slow growth rates, and high cash flow. In this study the approach used is using quantitative methods. Then analyzed partial and multiple regression. The data used is secondary data. The independent variables used are working capital, debt maturity, sales, and tangibility. The dependent variable used is investment efficiency. Working capital has no negative and significant effect on investment efficiency. Debt maturity has a negative effect on investment efficiency. Sales have a negative effect on investment efficiency. Firm age has no negative effect on investment efficiency. Tangibility has a negative effect on investment efficiency Working capital does not have a negative effect on investment efficiency. Debt maturity has a negative effect on investment efficiency. Sales have a negative effect on investment efficiency. Tangibility has a negative effect on investment efficiency. Working capital, debt maturity, sales and tangibility effect investment efficiency.

***Keywords**: Debt Maturity, Working Capital, Sales, Tangibility. Investment Efficiency*

INTRODUCTION

In the era of globalization, it is very easy for everyone to invest. Investment is an activity of placing funds in one or more types of assets for a certain period with the hope of obtaining income and/or increasing investment value in the future (Hidayati, 2017:2281. Only by using the gadget that is owned, someone can make transactions in the capital market. The capital market is a place for investors to invest their capital so that it continues to grow and is also a facility to facilitate investment activities (Putra & Damayanthi, 2019: 829). The benefits derived from investment are not only for investors but also for companies. Parties who make investments want the costs incurred to be less than the rate of return or income earned (Purba & Suaryana, 2018:42).

Before investing, investors seek information about the data of the company whose shares will be purchased. One of the factors that reflects the company's performance is the financial statements presented in the annual report prepared by the management for the benefit of the users, including investors (Saraswati, 2020:1)4. Financial reports for a company are only a means of evaluating the work of the accounting department, but

henceforth financial reports are not only a means of evaluation but also a basis for determining or assessing the company's financial position (Pongoh, 2013: 670)5. On this basis, management must improve the company's financial statements.

Specifically, the use of financial reports is to assess performance and financial position and make important business decisions made by company managers, for shareholders it is used to assess the risk and return on their investment in a company and make investment decisions based on their analysis, while for potential investors can be used to assess the feasibility of investing by predicting future dividends from profits disclosed in the financial statements. Financial reports that have high quality can be good guidelines or references to be able to determine and then determine optimal investment decisions (Purba & Suaryana, 2018:43).

An investment can be said to be efficient if the level of investment expected by the company does not deviate from the level of investment expected by the company within a predetermined time, a net profit value (NPV) or time value of money will be achieved in accordance with what the company has targeted (Suaidah & Sebrina, 2015: 2694) 6. Companies must be able to carry out investment efficiency in order to avoid underinvestment or overinvestment. Underinvestment conditions arise when companies face investment opportunities that require the use of large amounts of debt, without guarantees of sufficient debt repayment (free cash flow) (Sari & Suaryana, 2014: 525)7. Companies with overinvestment problems are generally companies that are in the mature stage with slow growth rates, and have high assets in place and free cash flow (Putra & Damayanthi, 2019: 830)2. From this discussion, it can be concluded that the quality of financial reporting will affect investment efficiency by reducing inefficiencies in the form of overinvestment or underinvestment as a result of problems arising from information asymmetry, namely adverse selection (occurring in underinvestment) and moral hazard (occurring in overinvestment) (Trisnawati, 2018 :4)8.

Quoted fromnasional.kontan.co.id (2021), Akhmad Sayuti as a Panel of Judges at the South Jakarta District Court sentenced two former directors of PT Tiga Pilar Sejahtera Food Tbk, Joko Mogoginta and Budhi Istanto with prison sentences of four years each and fines respectively. -Rp 2 billion each, a subsidiary of three months in prison. Both were found guilty of manipulating the 2017 financial statements with the aim of raising the company's share price. In their consideration, the panel of judges considered that Joko and Budhi, who signed the financial statements, were the parties responsible for the manipulation of the company's 2017 financial statements. The manipulation consisted of six affiliated distributor companies written as third parties, and overstatement of receivables from six the company with a value of Rp 1.4 trillion. Hakim Akhmad also mentioned that there was an alleged flow of funds from the company worth Rp 1.78 trillion to management.

In research conducted by Purba & Suaryana (2018), companies that have prepared high-quality financial reports can minimize information asymmetry. The higher the quality of a report, the higher the investment, and only part of the effect of the quality of financial reports on investment efficiency is influenced by information asymmetry

Suaidah and Sebrina (2015) concluded that the quality of financial reporting has a significant positive effect on investment efficiency. The quality of financial reporting even contributes to overcoming and underinvestment problems, increasing investment efficiency, and assisting companies in making investment decisions because they are able to reduce information asymmetry.

In previous studies, the results can be summarized, namely the quality of financial reporting affects investment efficiency. These results can be a reference whether this research is in accordance with previous studies or not.

The difference with previous research is that this research uses working capital accruals more specifically as a basis for calculations in concluding that the quality of financial reporting affects investment efficiency. The samples of mining companies listed on the Indonesia Stock Exchange for the period 2019 to 2021. This was done because they wanted to prove the impact that would occur if the object was a mining company. In addition, in 2020 Indonesia has experienced the Covid-19 pandemic so there is a possibility that the data obtained may not be normal.

Based oVn the background above and the many previous studies that have been carried out before, the researchers took the title "The Influence of Working Capital, Debt Maturity, Sales and Tangibility on Investment Efficiency in Mining Companies Listed on the Indonesia Stock Exchange in 2018-2021

METHOD

1. Types and Research Approaches

In this study the approach used is to use quantitative methods. . data type is secondary data. The data required is the mining company's annual financial reports for the 2019-2021 period.

2. Population and Sample

a. Research Population

The population used in this study are mining companies that have gone public and are listed on the Indonesia Stock Exchange (IDX) for the period 2018 to 2020.

b. Research Sample

The technique used in the collection in this study used a purposive sampling technique. Meanwhile, according to Husna & Suryana (2017: 113) Researchers make various criteria as follows:

1) Mining companies listed on the Indonesia Stock Exchange (IDX) for the 2018-2020 period.
2) Mining companies that publish complete financial statements that have been audited by independent auditors for the 2019-2021 period.
3) Mining companies that were not delisted during the observation period 2018-2020.

From the various criteria above, a sample of mining companies that meet the following criteria:

3. Research Data and Data Collection Methods

a. Research data

1) **Data Type**

The type of data in this study uses secondary data taken from the complete financial statements of mining companies that have been audited and listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period.

2) **Data Source**

Derived from the Indonesia Stock Exchange (IDX) which can be accessed from the website www.idx.co.id.

b. Method of Collecting Data

the data collection method is carried out by means of documentation, in this case audited and annual financial reports from mining companies listed on the IDX for the 2019-2021 period and via www.idx.co.id

4. Variables and Variable Definitions

In this study the types of variables used are independent variables and dependent variables. The independent variables used are working capital, debt maturity, sales, company age, and tangibility. The dependent variable used is investment efficiency.

a. Independent Variable (X)

Independent variables are variables that can influence changes in the dependent variable. Or in other words, the cause of variation in the dependent variable is due to the independent variable and has a positive or negative relationship for the dependent variable.

b. Working Capital (X1)

Working capital is cash and assets that are easy to cash in order to fund the company's daily operations. With this information, it is hoped that it can be used for any interest in making investment decisions. The quality of financial statements can be measured by the quality of working capital accruals from Dechow and Dichev (2002)9. Working capital accruals are regressed with operating cash flows from the previous year, this year, and the following year.

$WCAi,t = \beta 0 + \beta 1CFOi,t-1 + \beta 2CFOi,t + \beta 3CFOi,t+1 + \varepsilon i,t$

Where :

1) WCAi,t = working capital calculated from changes in non-current assets minus changes in current liabilities and then adding changes in short-term bank loans
2) CFOi,t-1 + CFOi,t + CFOi,t+1 = cash flow from the company's operations for the previous year, current year, and next year.

These items are scaled with the previous year's total assets. The residual value of the equation will be the absolute value, then multiplied by -1, so the result obtained is the highest value indicating that the quality of the financial statements is also getting higher.

c. Debt Maturity (X2)

Debt maturity is the deadline for the company's debt. The STDebt variable is

measured by the ratio of short-term debt to total debt.
Debt maturity = short-term debt/total debt

d. Sales (X3)

LNSales is the size of the company, measured using natural logarithm of sales.
LNSales = LN(Sales of research year x 1,000,000)

e. Tangibility (X5)

Tangibility is measured by the ratio of tangible fixed assets to total assets.
Tangibility = Fixed assets / Assets

f. Dependent Variable (Y)

The dependent variable is the variable associated with the independent variable. Any data input from the independent variable will affect the dependent variable, which can have a positive or negative effect. In this study the dependent variant used is investment efficiency.

$INVST_{i,t+1} = \beta 0 + \beta 1 Sales\ Growth_{i,t} + \varepsilon_{i,t+1}$

5. Data Analysis Method

a. Classic Assumption Test

1) **Normality Test**

This test is used to prove whether the confounding variables or residuals of the regression model have a normal distribution. The residual value is implied to be normally distributed, aiming to fulfill the zero mean assumption, the (dependent) variable. Normality testing was carried out with the Asymp Sig value, using the one sample Kolmogorov-Smirnov test. It is said to be normal if the probability is greater than 0.05 ($p>0.05$).

2) **Autocorrelation Test**

The aim is to test the linear regression there is a correlation with the confounding in period t with the confounding error t-1 (previous). If there is autocorrelation, then the problem is that there is an autocorrelation problem because successive observations appear all the time related to one another.

Below is the autocorrelation decision making using the Durbin Watson (DW) statistical table as follows:

a) A D-W number below -2 means there is a positive autocorrelation
b) The D-W number is between -2 to +2, meaning there is no autocorrelation
c) A D-W number below +2 means that there is a negative autocorrelation.

3) **Multicollinearity Test**

To test whether the regression model has a correlation between independent variables. An approach like this can be done by looking at the value of the virtual inflation factor (VIF) from the results of the regression analysis. If VIF $\leq$ 10 and tolerance value $\geq$ 10, then the data does not have multicollinearity, but if it is the other way around, there are symptoms of multicollinearity.

4) **Heteroscedasticity Test**
The aim is to test whether there are variance and residual differences from one observation to another. If the variance and residue remain, then it is called homoscedasticity. A good regression model is where homoscedasticity occurs.

b. Multiple Regression Analysis

The analysis of this study was carried out using multiple linear regression techniques. Multiple regression analysis is a linear relationship between two or more independent variables with the dependent variable. This regression is used to test the relationship as well as the influence of the independent variables on the dependent variable. The formula is as follows:

$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + e$

Where :

Y = investment efficiency
a = constant
b = Coefficient of variable X
X1 = quality of working capital accruals
X2 = debt maturity
X3 = LNSales
X4 = Tangibility
e = term error

c. Hypothesis Testing

1) F test
The overall test shows whether the independent variable has an influence on the independent variation.
2) T test
To see whether the individual variables have an influence on the dependent variables assuming the other independent variables are constant
3) Coefficient of Determination
Aims to measure how far the model's ability to explain the dependent variable. In this research, the calculation of the coefficient of determination is used to measure the ability of the independent variables (working capital and debt maturity) to explain the dependent variable (investment efficiency).

RESULTS AND DISCUSSION

Multiple Linear Regression Analysis

After analyzing descriptive statistics and testing the assumptions of data analysis, the next research is data analysis, namely multiple linear regression analysis. Regression analysis is a dependency study of the dependent variable with one or more independent variables. This multiple linear regression analysis is used to analyze the influence of the independent variables working capital (X1) and debt maturity (X2), Sales (X3) and tangibility (X4)

on the dependent variable, namely investment efficiency for the 2018-2020 period .
The multiple linear regression model used in this study is as follows:
Y = a + b1X1 + b2X2 + b3X3 + b4X4 + e

Where :
Y = investment efficiency
a = constant
b = Coefficient of variable X
X1 = quality of working capital accruals
X2 = debt maturity
X3 = Sales
X4 = Tangibility
e = term error
The results of multiple linear regression analysis can be seen as follows:

Table 1 Results of Multiple Linear Regression Analysis

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.808	.127		6.368	.000		
	X1	-.088	.084	-.101	-1.050	.297	.928	1.078
	X2	-.107	.041	-.261	-2.645	.010	.891	1.122
	X3	-.019	.004	-.434	-4.349	.000	.868	1.152
	X4	-.252	.097	-.261	-2.597	.011	.856	1.168
a. Dependent Variable: Y								

Source : Processing Results SPSS 26

Based on table 1 above the multiple linear regression equation formed in this study and its interpretation are as follows:
Investment efficiency = 0.808 – 0.088X1- 0.107X2 – 0.019X3 – 0.252X4+e
4.6.1. T Test (Partial)
The T test is used to test the significance of relevance in one or two sample groups or it can be said that how each independent variable affects the dependent variable. The significance level used is 5% or 0.05.

Working Capital (X1)
Sig = 0.297
B = -0.088
In table 4.9 it can be seen that working capital has a significance value of 0.297 on investment efficiency with a regression coefficient of -0.088. The results show that the sig value is 0.297 ≥ 0.05, then H1 is rejected. The quality of working capital has no effect and is not significant on investment efficiency.

Debt Maturity (X2)
Sig = 0.010
B = -0.107
Debt maturity has a significance value of 0.010 on investment efficiency with a regression coefficient of -0.107. These results show that the sig value of 0.010 ≤ 0.05 means H2 is accepted, the quality of debt maturity has a significant negative effect on investment efficiency.

Sales (X3)
Sig = 0.000
B = -0.019
Sales have a significance value of 0.000 on investment efficiency with a regression coefficient of -0.019. These results show that the sig value of 0.000 ≤ 0.05 means H3 is accepted, sales quality has a significant negative effect on investment efficiency.

Tangibility (X4)
Sig = 0.011
B = -0.252
Tangibility has a significance value of 0.011 on investment efficiency with a regression coefficient of -0.252. The results show that the sig value of 0.011 ≤ 0.05 means H5 is accepted, the quality of tangibility has a significant negative effect on investment efficiency.
4.6.2. F Test

Table 2 Result of F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.237	5	.047	8.109	.000[b]
	Residual	.438	75	.006		
	Total	.674	80			

a. Dependent Variable: Y

b. Predictors: (Constant), X1, X3, X2, X4

Source : Processing Results SPSS 26

In table 2 the significance value obtained after the F test is carried out is 0.000, this value is smaller than 0.05, then H6 is accepted. This explains that all independent variables have a significant influence on the dependent variable.

CONCLUSION

Based on the results of the research and discussion that has been carried out, it can be concluded from this study, namely:

1. Working capital has no negative and significant effect on investment efficiency. With a coefficient with a negative value, excessive working capital will lead to smaller investment efficiency. Because in principle the company wants the smallest possible capital to get the greatest possible results.
2. Debt maturity has a negative effect on investment efficiency. This can be said to negatively affect investment efficiency due to an increase or decrease in debt maturity.
3. Sales have a negative effect on investment efficiency. With more and more sales, the required capital will be even greater, so that it will affect the efficiency of the investment made.
4. Tangibility has a negative effect on investment efficiency. This statement explains that the assets managed will greatly influence the investment policy of the company.
5. Working capital, debt maturity, sales and tangibility affect investment efficiency because the sign value is smaller than investment efficiency.

REFERENCES

[1] Dechow, P. and I. Dichev. 2002. The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. The Accounting Review, 77 (Supplement), 35-59

[2] Hidayati, Nuri. (2017). Pengaruh laba bersih, free cash flow, dan komponen-komponen akrual dalam memprediksi arus kas operasi masa depan studi kasus perusahaan manufaktur yang terdaftar di efek syariah 2012-2014. Bab I_IV. Fakultas Ekonomi dan Bisnis Islam Universitas Sunan Kali Jaga

[3] Pongoh, Marsel. 2013. Analisis laporan keuangan dalam menilai kinerja keuangan pada PT Bumi Resources Tbk. Universitas Sam Ratulangi Manado. Jurnal EMBA Vol. 1 No.3 September 2013, Hal. 669-679 ISSN 2303-1174

[4] Purba, I. A. C., & Suaryana, I. . N. A. (2018). Kualitas Laporan Keuangan, Asimetri Informasi dan Efisiensi Investasi Pada Perusahaan Pertambangan. *Jurnal Ilmiah Akuntansi Dan Bisnis*, *2018*(1), 42–53.https://doi.org/10.24843/JIAB.2018.v13.i01.p05

[5] Putra dan Damayanti. 2019. Pengaruh Kualitas Laporan Keuangan Terhadap Efisiensi Investasi. E-Jurnal Akuntansi. Volume 28 No.2.

[6] Saraswati, R. A. (2020). Pengaruh Kualitas Pelaporan Keuangan Terhadap Efisiensi Investasi Pada Perusahaan Konstruksi Yang Terdaftar DI Bursa Efek Indonesia. Ekonomi, May 9.

[7] Sari, L. I. N., & Suaryana, I. G. N. A. (2014). Pengaruh Kualitas Laporan Keuangan pada Efisiensi Investasi Perusahaan Pertambangan. *E-Jurnal*

Akuntansi Universitas Udayana, *3*(8), 524–537.

[8] Suaidah, R., & Sebrina, N. (2015). Pengaruh Kualitas Pelaporan Keuangan Dan Tingkat Jatuh Tempo Utang Terhadap Efisiensi Investasi. *Diponegoro Journal of Accounting*, *4*(2), 792–801.

[9] Trisnawati, A. (2018). Pengaruh Kualitas Pelaporan Keuangan Terhadap Efisiensi Investasi Dengan Kepemilikan Institusional, Maturitas Utang, Dan CEO Keluarga Sebagai Variabel Moderasi. *AKuntansi*.