

Effect of Working Capital, Debt Maturity, Sales, and Tangibility on Investment Efficiency

Nelli Novyarni ^{1*}, Dwi Christiantoro ², Reni Harni ³

^{1*,2} Sekolah Tinggi Ilmu Ekonomi Indonesia, Kota Jakarta Timur, Daerah Khusus Ibukota Jakarta, Indonesia.

³ Universitas Sali Al-Aitaam, Kabupaten Bandung, Provinsi Jawa Barat, Indonesia.

Abstrak. Tujuan penelitian untuk menganalisis variabel-variabel seperti modal kerja, jatuh tempo hutang, pendapatan dan aset berwujud yang mempengaruhi efisiensi investasi. Investasi adalah kegiatan menanamkan modal pada satu atau lebih jenis aset untuk jangka waktu tertentu untuk memperoleh pendapatan. Faktor yang mencerminkan kinerja suatu perusahaan adalah laporan keuangan yang disajikan dalam laporan tahunan. Underinvestment terjadi ketika perusahaan investasi memerlukan penggunaan utang dalam jumlah besar. Perusahaan dengan investasi berlebih adalah perusahaan yang sudah matang dengan pertumbuhan lambat dan arus kas tinggi. Dalam penelitian ini metodologi yang digunakan meliputi penggunaan metode kuantitatif. Kemudian dianalisis regresi parsial dan regresi berganda. Data yang digunakan adalah data sekunder. Variabel independen yang digunakan adalah modal kerja, jatuh tempo hutang, pendapatan dan aset berwujud. Variabel terikat yang digunakan adalah efisiensi investasi. Hasil yang diharapkan adalah menganalisis apakah variabel modal kerja, jatuh tempo hutang, pendapatan, dan aset berwujud mempengaruhi kinerja investasi. Oleh karena itu, penelitian ini memberi kita harapan bahwa investasi tersebut dapat membuahkan hasil.

Kata kunci: Jatuh Tempo Hutang; Modal kerja; Penjualan; Tangibilitas; Efisiensi Investasi.

Abstract. The research objective is to analyze variables such as working capital, debt maturity, sales and tangibility that affect investment efficiency. Investment is the 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. The targeted output is to analyze whether the variables of working capital, debt maturity, sales and tangibility affect investment efficiency, so that with this research it is hoped that investment can be efficient.

Keywords: Debt Maturity; Working Capital; Sales; Tangibility; Investment Efficiency.

* Corresponding Author. Email: sweetynovyarni@gmail.com ^{1*}.

Introduction

In the era of globalization, everyone can invest easily. Investing is the activity of investing capital in one or more types of assets over a certain period with the hope of earning income and/or increasing the value of the investment in the future (Hidayati, 2017). Just by how to use the utility property that that someone made in the capital market. The capital market is a place where investors can invest their capital so that it continues to grow and is also a tool to facilitate favorable investment activities (Putra & Damayanthi, 2019). Investing parties want the costs incurred to be lower than the profit margin or income earned (Purba & Suaryana, 2018).

Before investing, investors search for information about the data of the company whose shares are to be purchased. One of the factors that reflect a company's performance is the financial statements presented in the annual report prepared by the management for the benefit of users, including investors (Saraswati, 2020). A company's financial statements are only a means of evaluating the work of the accounting department, but nowadays financial statements are not only a means of evaluation but also a basis for determining and evaluating the financial situation of the company (Pongoh, 2013). Based on this, management must improve the company's financial reporting.

Specifically, the use of financial statements is to risk and return investment in a business and make investment decisions based on their analysis, while for potential investors, financial statements financial statements can be used to evaluate the feasibility of an investment by predicting future dividend income disclosed in the financial statements. Economic situation. High quality financial reports can serve as good guides or references to be able to identify and thereby make optimal investment decisions (Purba & Suaryana, 2018).

An investment can be considered efficient if the level of investment expected by the company does not differ from the level of investment expected by the company over a predetermined period, achieving a net profit

value (NPV). or time value for money. consistent with what the company has aimed for (Suaidah & Sebrina, 2015). Companies must be able to invest effectively to avoid under-investment or over-investment. Underinvestment conditions arise when businesses are faced with investment opportunities that require the use of large amounts of debt without the guarantee of full debt repayment (free cash flow) (Sari & Suaryana, 2014). Companies that encounter overinvestment problems are often companies that are in the mature stage, have slow growth rates, and have high existing assets and free cash flow (Putra & Damayanthi, 2019). From this discussion, it can be concluded that the quality of financial information will influence investment efficiency by reducing inefficiencies in the form of overinvestment or underinvestment due to problems arising from information asymmetry, specifically adverse selection (occurs in the case of underinvestment). and moral hazard (occurs in the context of overinvestment) (Trisnawati, 2018). Quoted from nasional.kontan.co.id (2021), Akhmad Sayuti, as a group of judges of the South Jakarta District Court, sentenced two former directors of PT Tiga Pilar Sejahtera Food Tbk, Joko Mogoginta and Budhi Istanto four five-year prison sentences and corresponding fines. -2 billion Rp each, 3 months in prison. Both were convicted of manipulating 2017 financial statements to drive up the company's stock price. During the review, the jury found that Joko and Budhi, who signed the financial statements, were the parties responsible for manipulating the company's 2017 financial statements. The manipulation included six affiliated distribution companies writing as third parties and overstating the receivables of the six companies by Rp 1.4 trillion. Hakim Akhmad also mentioned that there was an alleged cash inflow from the company worth Rs 1.78 trillion to the management.

In a study conducted by Purba & Suaryana (2018), companies that prepared high-quality financial reports were able to reduce information asymmetry. The higher the reporting quality, the higher the investment, and only part of the effect of financial reporting quality on investment efficiency is affected by

information asymmetry. Suaidah and Sebrina (2015) concluded that financial reporting quality has a significant positive impact. affect investment efficiency. Quality financial information even helps overcome the problem of underinvestment, increases investment efficiency, and helps companies make investment decisions because they can reduce information asymmetry.

In previous studies, the results can be summarized that the quality of financial information affects investment efficiency. These results can be used as a reference, whether this study is consistent with previous studies or not. The difference with previous research is that this study more specifically uses working capital accumulation as the basis of calculation to conclude that the quality of financial information affects investment efficiency. Sample of mining companies listed on the Indonesia Stock Exchange between 2019 and 2021. This was done because they wanted to demonstrate the impact that would occur if the subject were a mining company. In addition, in 2020 Indonesia experienced the Covid-19 pandemic, so the data obtained may not be normal.

Based on the above background and many previous studies that have been conducted before, the researchers chose the title “Effects of working capital, debt maturity, revenue and tangibility on investment efficiency investing in mining companies listed on the Indonesia Stock Exchange in 2018-2021.

Research Methodology

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.

Population and Sample

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. 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.
- 4) From the various criteria above, a sample of mining companies that meet the following criteria.

Research Data and Data Collection Methods

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.

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.

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.

1) 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.

a) Working Capital (X1)

Working capital is cash and assets that are easy to cash 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 regress with operating cash flows from the previous year, this year, and the following year.

$$WCA_{i,t} = \beta_0 + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \epsilon_{i,t}$$

Where :

$WCA_{i,t}$ = working capital calculated from changes in non-current assets minus changes in current liabilities and then adding changes in short-term bank loans
 $CFO_{i,t-1} + CFO_{i,t} + CFO_{i,t+1}$ = 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.

b) 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

c) LNSales (X3)

LNSales is the size of the company, measured using natural logarithm of sales.

$LNSales = \ln(\text{Sales of research year} \times 1,000,000)$

d) Tangibility (X5)

e) Tangibility is measured by the ratio of tangible fixed assets to total assets.

f) Tangibility = Fixed assets / Assets

2) 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.
 $INVEST_{i,t+1} = \beta_0 + \beta_1 \text{Sales Growth}_{i,t} + \epsilon_{i,t+1}$

Data analysis method

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 to see if 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 D-W number below -2 means there is a positive autocorrelation.
- The D-W number is between -2 to +2, meaning there is no autocorrelation.
- 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 ≥ 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.

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:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

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

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

This section consists of the results of validity and reliability tests and analysis of the results. Furthermore, this section discusses the results of the current study and how they relate to the hypothesis presented. The discussion section also explains possible reasons for why a certain hypothesis is rejected or accepted and how they relate to previous research. Furthermore, the author should show how the current result supports or contradicts previous studies, limitation of the study, and implication of the study (both managerial and scientific implications). This section also discusses the recommendation(s) for future research based on the limitation of the study.

Table 1. Bank Ownership Status

No.	Bank Ownership Status	Bank
Government Owned Bank		
1	(BUMN/Persero)	4
National Private Owned Bank		
2	(BUMS)	31
3	Foreign Owned Banks (BUMA)	0
4	Mixed Owned Bank (BUMC)	1
Total		36

Source: Indonesian Stock Exchange (2015).

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 dependent variables 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:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

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.

Tabel 2. 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

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 2 working capital has a significant 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 significant 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 significant 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 significant 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

Tabel 3. 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.

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