JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

ISSN : 1979-9292

E-ISSN : 2460-5611

ANALYSIS OF FACTORS AFFECTING DECISION OF FIXED ASSETS INVESTMENT IN BASIC AND CHEMICAL MANUFACTURING COMPANIES

Phiter Louis Gunawan[1)], Christine Gunawan[2)], Yois Nelsari Malau[3)]
Universitas Prima Indonesia
Email: yoisnelsarimalau@gmail.com

Abstract

The purpose of this study is to examine and analyze the factors that influence fixed asset investment decisions in basic and chemical manufacturing companies on the Indonesia Stock Exchange (IDX) for the 2017-2019 period, where the independent variables used are current ratio, operational cash flow, return on assets and age of the company and investment decisions on fixed assets as the dependent variable. This study used purposive sampling to obtain 22 sample companies from 74 population companies listed on the IDX for the period 2017-2019 (3 years). Simultaneous research results with the F test show that the current ratio, operating cash flow, return on assets, and company age together have a positive effect on fixed-asset investment decisions. The results of the research partially with the T-test showed that the current ratio and operating cash flow variables partially had no significant effect on fixed-asset investment decisions, while return on assets and company age had a partial and significant effect on fixed-asset investment decisions with the coefficient determination of 21.10%.

Keywords: Company Age, Current Ratio, Fixed Asset Investment Decisions, Operational Cash Flow, Return On Assets

INTRODUCTION

The development of the world economy is getting more advanced, causing various companies to compete with various parties. One of the efforts of the company management to expand market reach is through investment decisions. Investment decisions is made with the aim of placing excess funds in the company so that it can provide additional income for the company[1].

During a press release on Monday, March 2, 2020, through the kemenperin.go.id site, the Indonesian manufacturing industry showed a positive movement again in February 2020. This was reflected in the 49.3% increase in January to 51.9% in February 2020, indicating that a number of manufacturing sectors are still making business expansion or expansionary efforts[2].

Investment decisions are influenced by several factors called independent

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

ISSN : 1979-9292

E-ISSN : 2460-5611

variables, namely the current ratio, which functions to measure companies meeting short-term financial liabilities through current assets. In addition, it also considers sufficient operating cash flow to pay dividends[3].

And there is also a level of profitability that needs to be taken into account. This study takes the return on assets ratio as a measurement tool that measures the company's ability and quality to generate net income. And also, taking the age factor of the company, which is believed to indicate the fixed assets used are already considered as investment considerations for the addition of fixed assets[4].

.

METHOD

Quantitative methods are research data in the form of numbers and analysis using statistics. The study used a population of 74 basic and chemical manufacturing companies listed on the Indonesia Stock Exchange between 2017 and 2019[5][6].

Purposive sampling is a sampling technique with certain considerations. So, we selected 22 sample companies with an observation period of 2017-2019 (3 years) and obtained 66 research data[7][8][9].

Information	Amount
Basic and chemical manufacturing companies listed on the IDX for the 2017-2019 period	74
Listed basic and chemical manufacturing companies were not audited on the IDX for the 2017-2019 period	(0)
The company does not have complete financial data for any of the periods tested in this study	(34)
Basic and chemical manufacturing companies listed on the IDX do not use Indonesian Rupiah (IDR) for the period 2017-2019	(10)
Basic and chemical manufacturing companies listed on the IDX experienced losses in the 2017-2019 period	(8)
The number of companies that were the research samples	22 samples
Research period	3 years
The amount of observational data during the study period	66 research observation data

Table 1 Criteria for sampling

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

ISSN : 1979-9292

E-ISSN : 2460-5611

RESULT

Statistical descriptive statistics are used to analyze data by describing the collected data and making ready conclusions[10].

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio	66	,70	10,50	2,5007	1,81876
Arus Kas Operasional	66	-,37	3,20	,3655	,53207
Profitabilitas	66	,00	,84	,1824	,16802
Umur Perusahaan	66	,08	30,08	16,0226	11,26816
Keputusan Investasi Aset Tetap	66	-,19	,69	,0902	,16940
Valid N (listwise)	66				

Figure 1. Descriptive Statistics

Figure 1 shows the minimum value of the current Ratio of 0.70 at PT. Fajar Surya Wisesa Tbk in 2019 and a maximum value of the current Ratio of 10.50 at PT. Kirana Megatara Tbk. 2019. The average current ratio is 2,5007 and the standard deviation of the current ratio is 1.81876[12].

The minimum value of Operational Cash Flow is -0.37 at PT. Kirana Megatara Tbk. 2017 and the maximum operating cash flow value is 3.20 at PT. Kirana Megatara Tbk. 2019. The average of Operational Cash Flow is 0.3655 and the standard deviation of Operating Cash Flow is 0.53207[13].

The minimum value of profitability is 0.00 at PT. Kirana Megatara Tbk. in 2018, and the maximum profitability value of 0.84 at PT. Champion Pacific Indonesia Tbk in 2017. The average profitability is 0.1824 and the standard deviation of profitability is 0.16802[14].

The minimum age value of the company is 0.08 at PT. Panca Budi Idaman Tbk in 2017 and the maximum age of the company is 30.08 at PT. Indocement Tunggal Prakasa Tbk in 2019. The average age of the company is 16,0226 and the standard deviation of the age of the company is 11,26816[15].

The minimum value of fixed asset investment decision is -0.19 to PT. Lion Metal Works Tbk in 2017 and the maximum value of fixed asset investment decisions is 0.69 at PT. Mark Dynamics Indonesia Tbk in 2018. The average investment decision of fixed assets is 0.0902 and the standard deviation from fixed asset investment decisions is 0.16940.

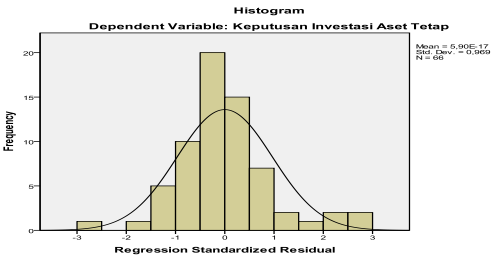

Figure 2. Histogram

Figure 2 shows that the histogram diagram of the tall blocks follows a pattern to form a blob, so that the

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

ISSN : 1979-9292

E-ISSN : 2460-5611

diagram shows the normal distribution of the data.

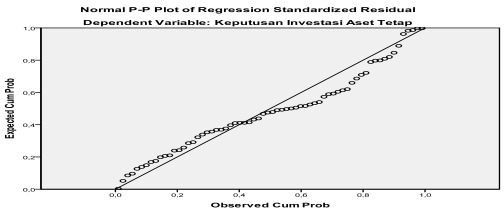

Figure 3. Normal P-P Plot

Figure 3 shows that the points spread around the diagonal line and the spread is close to the diagonal line, so that it is concluded that they are normally distributed.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		66
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	,14580157
Most Extreme Differences	Absolute	,134
	Positive	,134
	Negative	-,061
Kolmogorov-Smirnov Z		1,086
Asymp. Sig. (2-tailed)		,189

a. Test distribution is Normal.

b. Calculated from data.

Figure 4. Normality Test Results

Figure 4 shows the results of the normality test which states that the significant value is 0.189. This means that it is normally distributed because the significance is > 0.05 statistically.

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Current Ratio	,774	1,293
	Arus Kas Operasional	,616	1,624
	Profitabilitas	,680	1,472
	Umur Perusahaan	,977	1,023

a. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 5. Multicolinearity Test Results

Figure 5 states that the results of this multicollinearity test show that the Tolerance value or VIF value for the Current Ratio is 0.774 > 0.1 or 1.293 < 10. The Tolerance value or VIF value for operating cash flow is 0.616 > 0.1 or 1.624 < 10 Tolerance value or VIF value for profitability is 0.680 > 0.1 or 1.472 < 10. Tolerance value or VIF value for company age is 0.977 > 0.1 or 1.023 < 10. The conclusion of the multicollinearity test is that all independent variables do not occur. multicollinearity test.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,509[a]	,259	,211	,15051	1,545

a. Predictors: (Constant), Umur Perusahaan, Profitabilitas, Current Ratio, Arus Kas Operasional

b. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 6. Autocorrelation Test Results

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

ISSN : 1979-9292

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

E-ISSN : 2460-5611

In Figure 6, it states that the results of data processing obtained by Durbin-Watson are 1.545 with n = 66 and k = 4, then the DL value is 1.4758 and DU is 1.7319. Because the DW value is 1.545 above 1.4758 (1.4758 < 1.545 < 1.7319) so there is no autocorrelation..

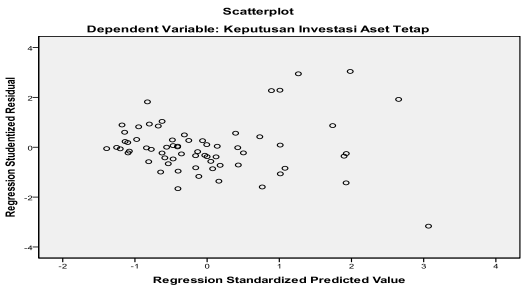

Figure 7. Scatterplot

Scatterplot image to observe whether there is heteroscedasticity or homoscedasticity by observing the distribution of dots.

Figure 7 shows that the scatterplot graph shows that the dots spread out randomly and form a certain pattern and are scattered both above and below the number 0 on the Y-axis.

The results of the heteroscedasticity test with the Park test method are:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-3,393	,535		-6,341	,000
	Current Ratio	,001	,187	,001	,006	,995
	Arus Kas Operasional	-,648	,894	-,184	-,725	,477
	Profitabilitas	2,845	2,930	,239	,971	,344
	Umur Perusahaan	,012	,018	,153	,663	,515

a. Dependent Variable: LN_RES

Figure 8. Results of the Park Test method

The Park test value, current ratio, has a significant value of 0.995, as shown in Table 6. The operational cash flow park test value is significant at 0.477. Profitability Park test value with a significant value at 0.344. The company age park test value with a significant value at 0.5159. This does not occur heteroscedasticity in the regression model, so that the regression model is suitable for use in this study, because the significant current ratio, operating cash flow, profitability, and age of the company is > 0.05 statistically.

Multiple linear regression analysis of the effect of current ratio, operating cash flow, profitability, and company age on fixed-asset investment decisions in basic and chemical manufacturing companies on the Indonesia Stock Exchange (IDX) in 2017-2019 are:

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

ISSN : 1979-9292

JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)

E-ISSN : 2460-5611

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,089	,042		2,102	,040
	Current Ratio	,020	,012	,214	1,707	,093
	Arus Kas Operasional	-,081	,045	-,255	-1,813	,075
	Profitabilitas	,354	,135	,351	2,629	,011
	Umur Perusahaan	-,005	,002	-,347	-3,112	,003

a. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 9. Results of Multiple Linear Regression Analysis

Based on Figure 9, the data above shows that a regression equation for current ratio, operating cash flow, profitability and company age on fixed-asset investment decisions in manufacturing companies listed on the IDX in 2017-2019 has the following results:

Fixed Asset Investment Decision = 0.089 + 0.020 CR -0.081 Operating Cash Flow + 0.354 ROA -0.005 age of the company

Hypothesis Determination Coefficient

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,509[a]	,259	,211	,15051

a. Predictors: (Constant), Umur Perusahaan, Profitabilitas, Current Ratio, Arus Kas Operasional

b. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 10. Results of the Hypothesis coefficient of determination

Figure 10 shows that the test results of the coefficient of determination are the amount of adjusted R Square is 0.211, so the effect of the current ratio, operating cash flow, profitability, and company age on fixed-asset investment decisions in basic and chemical manufacturing companies on the Indonesia Stock Exchange (IDX) in 2017-2019 amounted to 21.10% while the remaining 78.90% was influenced by other factors not examined in this study, namely stock prices, and etc.

Simultaneous Hypothesis Testing (F-Test)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,484	4	,121	5,337	,001[a]
	Residual	1,382	61	,023		
	Total	1,865	65			

a. Predictors: (Constant), Umur Perusahaan, Profitabilitas, Current Ratio, Arus Kas Operasional

b. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 11. Simultaneous Hypothesis Testing Results

H0 is refused and Ha is approved when F-table is 2.75 at the 95 percent confidence stage (α = 0.05) since F-count > F-table or 5.337 > 2.75 with a substantial 0.000 < 0.05. This indicates that the current ratio, operating cash flow, profitability and age of company simultaneously influenced fixed-asset investment decisions in basic and chemical manufacturing companies on

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

ISSN : 1979-9292
JURNAL IPTEKS TERAPAN
Research of Applied Science and Education V15.i3 (321-329)
E-ISSN : 2460-5611

the Indonesia Stock Exchange (IDX) in 2017-2019 Period.

Partial Hypothesis Testing (T-test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,089	,042		2,102	,040
	Current Ratio	,020	,012	,214	1,707	,093
	Arus Kas Operasional	-,081	,045	-,255	-1,813	,075
	Profitabilitas	,354	,135	,351	2,629	,011
	Umur Perusahaan	-,005	,002	-,347	-3,112	,003

a. Dependent Variable: Keputusan Investasi Aset Tetap

Figure 12. Partial Hypothesis Test Results

Figure 12 explains that independent variables partially affect dependent variables. It can be explained that if the significant value of the variable is greater than 0.05, then it has no effect.

So, according to this table, the variables of Current Ratio and Operational Cash Flow with a significant value of 0.093 and 0.075 respectively, don't have a significant impact on fixed-asset investment decisions. Meanwhile, the Variable Profitability and Age of the Company with significant values of 0.011 and 0.003 respectively partially affect and significant on fixed-asset decisions.

CONCLUSION

According to the findings of this study can be concluded under the Current ratio and operating cash flow partially has no effect and significant on the investment decision of fixed assets in basic and chemical manufacturing companies on the Indonesia Stock Exchange in 2017-2019 Period. Meanwhile, variable profitability (ROA) and company life partially affect and significantly to fixed asset decisions.

In the year 2017-2019, the current ratio, operational cash flow, profitability (ROA), and business age all have an impact on fixed-asset investment decisions in Indonesian basic and chemical manufacturing enterprises. The coefficient of determination findings shows that the quantity of modified R square is 21.10 percent and the remainder is 78.90%.

Companies Should pay more attention to the factors that have a significant impact on each act of purchasing fixed assets so as to produce effective decisions for the company. And for the next researcher, it is expected to be able to research on other manufacturing companies and look for other factors that can influence any investment decision making.

THANK YOU

The author expresses gratitude to the Head of the Accounting Study Program, a lecturer at Prima Indonesia University,

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

ISSN : 1979-9292
E-ISSN : 2460-5611

as well as the author's parents, who have always been supportive, and everyone else who assisted with the study.

REFERENCE

[1] Adiwiratama, Jundan. 2012. *Pengaruh Informasi Laba, Arus Kas Dan Size Perusahaan Terhadap Return Saham*. Jurnal Ilmiah Akuntansi Dan Humanika. Vol. 2 (1).

[2] Aini, Nur. 2018. *Analisis Arus Kas Operasi dan Kebijakan Pendanaan Serta Dampaknya Terhadap Keputusan Investasi*. Tesis. Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Gresik.

[3] Br Tarigan, Setty. 2018. *Pengaruh Jatuh Tempo Utang, Kepemilikan Intitusional, Kepemilikan Manajerial, Ukuran Perusahaan dan Umur Perusahaan Terhadap Efisiensi Investasi Pada Perusahaan Manufaktur di Bursa Efek Indonesia (Periode 2013-2016).* Skripsi. Sekolah Tinggi Ilmu Ekonomi Yayasan Keluarga Pahlawan Negara Yogyakarta.

[4] Bria, Ewaldus Richard, Mendra, Ni Putu Yuria dan I Putu Edy Arizona. 2019. *Pengaruh Laporan Arus Kas Operasi dan Laba Terhadap Keputusan Investasi*. Kumpulan Hasil Riset Mahasiswa Akuntansi (KHARISMA), Vol 1 (1).

[5] Dahlan, Fitriani dan Memen Suwandi. 2016. *Pengaruh Keputusan Investasi Terhadap Nilai Perusahaan Jasa Perbankan yang Terdaftar di Bursa Efek Indonesia*. Jurnal Ilmiah Akuntansi Peradaban, Vol 2 (1).

[6] Dewinta, Ida Ayu Rosa dan Putu Ery Setiawan. 2016. *Pengaruh Ukuran Perusahaan, Umur Perusahaan, Profitabilitas, Leverage, dan Pertumbuhan Penjualan Terhadap Tax Avoidance*. Jurnal Akuntansi Universitas Udayana, Vol 14 (3).

[7] Gea, Friderika. 2018. *Analisis Laporan Arus Kas Sebagai Alat Ukur Efektivitas dan Efisiensi Kinerja Keuangan pada PT. Mayora Indah Tbk*. Skripsi. Program Studi Manajemen, Sekolah Tinggi Ilmu Ekonomi Nias Selatan Telukdalam.

[8] Ghozali, Imam. 2016. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23*.

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021

ISSN : 1979-9292
E-ISSN : 2460-5611

Semarang. Badan Penerbit Universitas Diponegoro.

[9] Hery. 2016. *Analisis Laporan Keuangan*. Jakarta. Grasindo.

[10] Wahyuni, Sri, Arfan, Muhammad dan M. Shabri. 2015. *Pengaruh Kepemilikan Manajerial, Kepemilikan Institusional, Financial Leverage, dan Profitabilitas Terhadap Keputusan Investasi Perusahaan Manufaktur di Indonesia.* Jurnal Magister Akuntansi Pascasarjana Universitas Syiah Kuala Vol 4 (2).

[11] Wati, Mirna dan Abdul Rasyid. 2016. *Pengaruh Current Ratio, Return On Assets dam Tota; Assets Turnover Terhadap Investasi Aktiva Tetap*. FUTURE : Jurnal Manajemen dan Akuntansi Vol 4 (1).

[12] Wijaya, Anggita Langgeng dan Juli Murwani. 2011. *Pengaruh Kepemilikan Manajerial, Leverage dan Profitabilitas Terhadap Kebijakan Investasi Perusahaan.*. Jurnal Dinamika Akuntansi Vol. 3 (1).

[13] Kanigara, Mahesa Gaeng. 2018. *Analisis Faktor-Faktor yang Mempengaruhi Keputusan Investasi Aktiva Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia*. Skripsi. Fakultas Ekonomi, Universitas Islam Indonesia Yogyakarta.

[14] Kasmir. 2016. *Pengantar Manajemen Keuangan.* Jakarta. Kencana Edisi II.

[15] Nugroho, Amadi. 2012. *Faktor-Faktor yang Mempengaruhi Intellectual Capital Disclosure*. Accounting Analysis Journal. Universitas Negeri Semarang.

Submitted : 23/05/2021 – Accepted : 23/08/2021 – Published : 24/08/2021