

DETERMINANTS OF FIXED-ASSET INVESTMENT DECISION IN INDONESIAN GO PUBLIC COMPANIES

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Abstract: Investment is one of the most crucial decisions for go public firms. By investing, the company is allocating funds for a better future. The investment will make allow the money to grow for earning a higher rate of return. This study investigates the factors that influence public companies in Indonesia in making investment decisions by choosing fixed assets. The research samples are listed manufacturing companies in the Indonesia Stock Exchange between 2015–2020. Three independent variables are used, which are operating cash flow, firm value, and firm size, while the dependent variable is investment. The analysis technique used is multiple linear regression. The study result shows that Indonesia’s go public companies’ investment decision on fixed assets has significantly been determined by operating cash flow and firm size. Meanwhile, firm value has no significant effect on investment decisions.

Keywords: investment decision; operating cash flow; firm value; firm size.

INTRODUCTION

The company manager has a crucial role in making a profit. Thus, the leader has many important decisions that must be appropriately managed. According to Sarwar, Kutan, Ming, & Husnain (2020), a manager has three activities that will lead the company to finance, invest, and make operational decisions. According to Farooq, Satt, Bendriouch, & Lamiri (2021), another critical decision is to distribute dividends from the issuance of company shares. Those decisions are done to maximize the value of the company.

One of the important decisions to be appropriately managed is the company’s investment. The investment decision in the company shows a commitment to

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invest funds to obtain future profits (Tandelilin, 2010). Asset allocation in investing can be done by choosing real and financial assets or combining the two types of assets (Castellas, Ormiston, & Findlay, 2018; Widnyana, Wiksuana, Artini, & Sedana, 2021). Investment activity can be supported by issuing capital to increase company value in the long term by buying fixed assets. In addition, the manager also sells assets to get funds back from assets.

If the company has good financial conditions, the manager will make an investment decision. Generally, the company prefers to buy real assets rather than financial assets. Fixed asset investment as a productive activity will provide more returns in the future and also as collateral when the company borrows money from the bank (Gitman, 2001). The meaning of real asset is owning tangible assets. For example, the land, machinery, factories, buildings, and other fixed assets. Meanwhile, financial assets can be selected by investing in securities, promissory notes, mutual funds, derivative products, common stocks, and bonds.

In Indonesia, manufacturing companies accelerated well by making investment decisions, although the global and national economies slowed down. This can be shown by increased production and investment in many sub-sectors in manufacturing companies, such as electrical equipment, machinery, equipment, wood, and plaiting (Suryamin, 2014). The Central Statistics Agency (BPS) data showed that manufacturing growth in 2014 reached 4.96% (Suryamin, 2014). The increasing growth was due to the impetus for investment in the manufacturing sector in Indonesia, especially investments which are supported by the government.

According to Sarwar et al. (2020), investment can be made when the company has sufficient operating cash flow and is classified as a big size firm. This is intended to obtain guarantees that support long-term activities. Operating cash flow will indicate short-term activity. If short-term cash flow conditions are good, it is hoped that long-term activities will not be disrupted so that companies can invest more. In addition, companies with large firm sizes will tend to invest more. According to Starr, Starr, & Worzala, (2019), a large company size indicates the company's ability to seek capital in the capital market. Thus, a large firm size means large asset ownership so that the company can invest even more.

The phenomenon above shows that manufacturing companies have huge company sizes and investments in fixed assets. This indicates that the develop-

ment of manufacturing companies affects Indonesia's economy. Manufacturing companies with a lot of investment will give a positive image for Indonesia. It is due to the investment climate in which fixed assets will be maintained and can support Indonesia's resources to bring in potential creditors and investors.

Furthermore, firm value can also influence investment decisions. Companies that have a favorable view of investors will increase the firm value. This causes the company to believe that the company's condition can carry out investment activities. Investment activities will be selected according to the positive Net Present Value (NPV) criteria (Ross et al., 2008). According to Ionita & Dinu (2021), a higher company value indicates an increase in investment of the firm.

Based on the previous explanation, researchers are interested in knowing the factors that influence investment decisions in manufacturing companies. The increasing performance of manufacturing firms in investing is supported by the ASEAN Economic Community (AEC) program that has been government initiated. According to Memarista & Puspita (2020), good investment development expands or creates job vacancies which also help to reduce unemployment in Indonesia. By choosing the right investment, shareholders may increase their wealth, because it shows future growth. As the company values high feasibility investment project, it will consider the profit. The explanation suits the signaling theory. Investment spending can increase the company's stock price (Ionita & Dinu (2021). The creditor also feels safer to provide debt for the companies that have huge fixed assets investment as collateral.

Buying fixed assets indicates the investment decisions in this study. Fixed assets will represent long-term investment activity in the go public company (Akbar, Jiang, & Akbar, 2022). It will meet the needs of production capacity. The investment cash flow shows the difference between the purchase and sale of fixed assets. The further goal is to reinvest those funds into the company and desire future benefits as the profit. That profit indicates appreciating the asset's value to be sold at a higher price. The higher profit signifies the return of the company and the considered risks (Memarista & Puspita, 2020).

Many factors can affect a company's investment decisions. According to Memarista (2016), investment can be influenced by cash flow and firm value. In addition, investment decisions can also be affected by the overconfidence of a manager, cash flow (Lin, Hu, & Chen, 2005; Memarista, 2016). Meanwhile,

Agyei-Boapeah & Machokoto (2018) and Starr et al. (2019) stated that firm size, profitability, managerial ownership, and dividend policy affect investment decisions. According to several previous researchers, there are three factors that influence the company's investment decisions, such operating cash flow, firm value, and firm size.

The company has three types of cash flows based on the activities. According to Sarwar et al. (2020), the cash flows consist of financing activities, investing activities, and operating activities. The cash flow statement will record all cash transactions going out and into the company based on those three activities. The cash flow of financing activities will be indicated by the amount of cash originating from long-term debt and equity. The cash flow of investing activities will be shown by the amount of money arising from fixed assets owned by the company. Meanwhile, cash flow from operating activities is indicated by cash created from current assets and current liabilities.

Based on the three kinds of cash flows above, operational cash flow indicates the importance of daily activity funding. It shows the value of cash flows obtained in the short term (Ross et al., 2008). Day-to-day operational activities demonstrate the impact of cash on transaction value, which is included in determining net income. A negative operating cash flow represents the company's condition at a fundamental level regarding the inadequacy of cash coming in from business operations to cover daily cash needs. Meanwhile, with positive operating cash flow, the company is experiencing excellent performance of an investment, higher value settlement of account receivables, and sales of inventory.

Company operating cash flow also signifies the firm's efficiency. The higher operational cash flow shows the greater the funds available to the company for short-term needs. This affects the managers in increasing investment sensitivity. Thus, the greater the value of operating cash flows will increase the company's investment decisions. The research results from Agyei-Boapeah & Machokoto (2018) show that operating cash flow can be used as funding in making investment decisions.

H1: Operating cash flow has a significant positive effect on investment decisions.

The firm value represents the market's assessment of the company's performance. A good company value describes investors interested in the company's

investment. It indicates that the incoming funds from investors are growing. In this study, firm value can be demonstrated through the ratio of market value to book value equity for measuring market value. This ratio is the financial market assessment of the company's management and organization, and the book value reflects the historical value of the company's assets (Castellas et al., 2018). A higher market value company shows a higher market value ratio than the book value of its assets. It also indicates an investment or competitive opportunity (Fusheng, Min, & Xia, 2009).

Managers always try to think positively about the company's valuation. Due to the impact on capital issuance. Manager valuation will trigger good value from investors too. If a company's value is increasing, the attention from external parties will get higher and will obtain funds that can be used to invest. According to Ionita & Dinu (2021), increasing firm value may indicate an increase in investment. Thus, the lower the company's value, the smaller the investment.

H2: The firm value has a significant positive effect on investment decisions.

The firm's size in this study can be shown by the value of sales of the company in a certain period. The number of sales suggests that the company finds it easy to obtain funds from the capital market (Starr et al., 2019). This can increase bargaining power when offering funding needs in the community. A large number of sales indicates large company size and signals that the company can survive and convince investors to invest.

The value of a large company size can indicate that the company's investment is growing. In this research, the firm size is calculated from sales. Sales are used as a proxy for company size; the greater the sales, the higher the company's income relationship with investment (Memarista, 2016). The larger the size of the company, the greater the company's investment.

H3: Company size has a significant positive effect on investment decisions.

METHOD

Research Design

The analysis model in this study uses an influence test through multiple linear regression, as follows:

$$ID_{it} = \alpha + \beta_1 OC_{it} + \beta_2 FV_{it} + \beta_3 FS_{it} + e_{it} \dots\dots\dots(1)$$

Notes:

α is the intercept of a regression model; $\beta_1, \beta_2, \beta_3$ is regression coefficient for each independent variable, ID_{it} is the investment decision of company i in the period t, OC_{it} is the operating cash flow of company i in the period t, FV_{it} is the firm value of company i in the period t, FS_{it} is the firm size of the company i in the period t, and e_i is the standard error of company i in the period t.

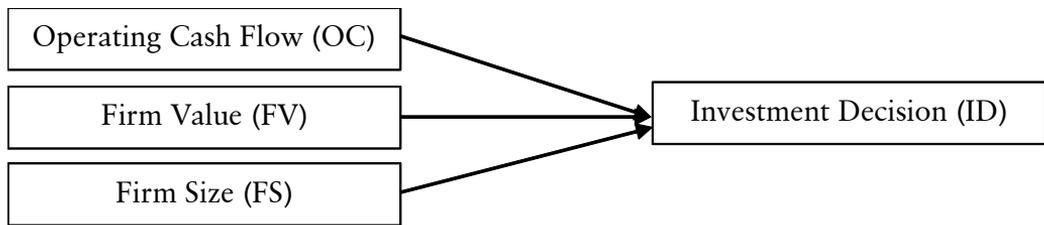


Figure 1 Research Framework

Method of Collecting Data

This research approach is carried out using a quantitative approach. It shows data processing that focuses on numerical data and will be processed using statistical methods. Furthermore, this study will also use multiple linear regression and there is a hypothesis testing to test the effect of operating cash flow, firm value, and firm size. Data collection in this study was carried out by downloading financial reports from the Indonesia Stock Exchange website and collecting data through the Data Center Lab using downloaded from Bloomberg.

Population, Sample, and Sampling Technique

The research sample in this study was determined by *purposive sampling*. It is a non-probability sampling technique that selects objects based on the limits determined by the researcher. The sampling criteria in this study are manufacturing companies listed on the Indonesia Stock Exchange between 2015–2020. Moreover, the sample companies must have positive equity and net income values because a negative equity value is a denominator. Thus, it will be meaningless since the firm has a capital deficiency, and investment occurs when profits occur so there are still retained earnings. The sample company must have

positive sales value because the sales value will be used as an empirical indicator to measure the value of the firm size that requires transformation using the Ln form (natural logarithm) and the most important thing is that the sample companies have complete data to calculate the variables of this study.

Measurement of Research Variables

There are two types of variables used in this study: the dependent and independent variables. The investment decision variable indicates the dependent variable (Y). Meanwhile, this study’s independent variable (X) is operating cash flow, firm value, and firm size. The investment decision (ID_{it}) is an investment in fixed assets in the company. To avoid deviations in the value of fixed assets, due to the discrepancy in the size of the sample companies, the investment value will be normalized by total assets:

$$ID_{it} = (\text{Purchase of Fixed Assets}_{it} - \text{Sale of Fixed Assets}_{it}) / \text{Total Assets}_{it} \dots\dots\dots(2)$$

Furthermore, for the independent variables in this study, the first one is operating cash flow (OC_{it}) which shows total cash flows from operations to be normalized by total assets:

$$OC_{it} = (\text{EBIT}_{it} + \text{Depreciation}_{it} - \text{Tax}_{it}) / \text{Total Assets}_{it} \dots\dots\dots(3)$$

The firm value (FV_{it}) describes the ability of the company as seen by the market value of equity and compared to the book value of equity as measured by the market value to book value of equity ratio:

$$FV_{it} = \text{Market Value of Equity}_{it} / \text{Book Value of Equity}_{it} \dots\dots\dots(4)$$

The firm size (FS_{it}) is the number of company sales. It is measured using the natural logarithm on sales:

$$FS_{it} = \text{Ln Sales}_{it} \dots\dots\dots (5)$$

RESULTS

This study uses go-public manufacturing companies listed in the Indonesia Stock Exchange between 2015–2020. These manufacturing firms consisted of three sub-sectors, with 22 companies. The three sub-sectors are the chemical

industry, various industries, and the consumer goods industries. Those companies sell metals, chemicals, plastic and packaging, automotive and components, cable, food, beverages, and also cigarette.

Many investors hold shares of companies in the manufacturing sector because they are active in trading and have leading stocks. This causes manufacturing companies to contribute to economic growth through GDP in Indonesia. The government also encourages investment in manufacturing companies that have the characteristics of the most extensive support for growth. This can support industries such as the food, beverage, tobacco, and downstream industries based on natural resources industries, namely the agricultural sector and mineral mining. The government will focus on investment, long-term tax deferral, and growth in labor-intensive sectors such as the electronics and textile industries.

The variables used in this study are investment decisions, operating cash flow, firm value, and firm size. The table below shows a description of the research variables, namely:

Table 1 Statistics Descriptive

Description	Investment Decision (ID)	Operating Cash Flow (OC)	Firm Value (FV)	Firm Size (FZ)
Maximum	0.220	0.287	4.395	30.390
Minimum	-0.048	0.006	0.204	25.550
Mean	0.053	0.117	1.106	27.713
Standard Deviation	0.057	0.066	0.834	1.279

Model Analysis and Hypothesis Testing

The data in the research has passed the test for the classical assumptions. The study was carried out by testing normality, autocorrelation, multicollinearity, and heteroscedasticity. This research conducted a normality test using the Kolmogorov-Smirnov test and the results indicate that the significance value of the normality test on the Kolmogorov-Smirnov test seen from the p-value of 0.144 is greater than 5%, so the normality assumption has been met. The results of the autocorrelation test showed that the Durbin Watson value in this study is 1.536. The regression model does not have autocorrelation because Durbin Watson's value lies between -2 to +2 or in the area where there is no autocorrelation. The heteroscedasticity test

in this study uses the Glejser test with results showing that the significant value of each independent variable on the absolute residual is greater than 5%; thus, the regression model does not have heteroscedasticity.

Table 2 Glejser Test Result

Variables	Sig. t
OC _{it}	0.719
FV _{it}	0.396
FS _{it}	0.120

Multicollinearity Test

The multicollinearity test results show that the VIF value is less than ten and the tolerance (TOL) is more than 10%, so there is no multicollinearity. The following is a table of multicollinearity test results through VIF and tolerance (TOL) values:

Table 3 VIF and Tolerance (TOL) Values

Variables	Collinearity Statistics	
	TOL	VIF
OC _{it}	0.532	1.882
FV _{it}	0.503	1.990
FS _{it}	0.927	1.079

Multiple Linear Regression Test Results and Hypothesis Testing

The following is a table of multiple linear regression results in this study consisting of the results of the partial test, simultaneous test, and the value of the coefficient of determination.

Table 4 Multiple Linear Regression Test Results

Variables	Unstandardized Coefficients		Sig. t	F Statistics	Sig. F	Adj. R ²
	B	Standard Error				
Constant	-0.143	0.034	0.000			
OC _{it}	0.128	0.033	0.002***	18.071	0.000	0.316
FV _{it}	-0.002	0.003	0.585			
FS _{it}	0.006	0.001	0.000***			

The resulting multiple linear regression equation can be written as follows:
 $ID_{it} = -0.143 + 0.128 OC_{it} - 0.002 FV_{it} + 0.006 FS_{it} + e_{it} \dots\dots\dots(6)$

The constant value of -0.143 means that if the values of operating cash flow, firm value, and firm size are zero, investment decisions are predicted to decrease by 0.143. In addition, here is the partially significant test (t-test) results. Operational cash flow (OC_{it}) has a significant positive effect on investment decisions. The significant value of t in this variable is 0.002, which is less than 5% , so the null hypothesis is rejected. Thus, the higher the operating cash flow, the greater the investment decision. For every 1-point increase in operating cash flow, investment decisions will increase by 0.128. The firm value (FV_{it}) has no significant effect on investment decisions. This can be shown by the significant value of t of 0.585, which is greater than 5%, so the null hypothesis is accepted. The firm size (FS_{it}) has a significant positive effect on investment decisions. This can be shown by the significant t variable firm size of 0.000, smaller than 5%, so the null hypothesis is rejected. Thus, the larger the company’s size, the greater the investment decision. For every 1-point increase in company size, the investment decision will increase by 0.006.

The F significance test in this study shows the value of 0.000, which is less than 5%, so the null hypothesis is rejected. Thus, operating cash flow, firm value, and firm size altogether have a significant effect on investment decisions. In addition, the coefficient of determination (Adj. R^2) is 0.316. This means that the independent variables consisting of operating cash flow, firm value, and firm size, are only able to explain the variability of investment decisions by 31.60%, and the remaining 68.40% is influenced by other factors not examined in this study.

DISCUSSION

The Effect of Operating Cash Flow on Investment Decisions

The results show that operating cash flow had a significant positive effect on investment decisions. The results of this study are consistent with the results of Agyei-Boapeah & Machokoto (2018) and Sarwar et al. (2020). Operational cash flow can support the company’s short-term performance. Based on the statistic descriptive, the average operating cash flow is 11,7%. This value seems suitable

enough to support the investment, so that the company will add more funding from external parties. When the companies use operational cash flows for investment activities, albeit in less-than-optimal amounts, it may still help the manager to support the purchase of fixed assets (Agyei-Boapeah & Machokoto, 2018). According to Sarwar et al. (2020), excessive operating cash flow will increase investment decisions if the company's condition is good. Because cash flows come from internal sources, so managers are willing to use them (Jensen, 1986).

The Effect of Firm Value on Investment Decisions

Firm value has no significant effect on investment decisions in this study. According to Brigham & Daves (2009), this can be caused by the type of assessment of investors to the company. Based on the data in this research, go public companies have higher market value than the book value of their equities. On average, the firm value in this sample is 1.106. Yet, it may have other factors that can influence the investment decision through the valuation.

In general, investors assess companies based on the benefits offered in dividends, but not all companies distribute dividends since dividends are not an obligation of the company (Sarwar et al., 2020). Many companies distribute dividends with a value that experiences supernormal growth dividends, better describing the capital market's reality. Thus, this dividend distribution system causes investors not to influence the company's assessment when choosing a place to invest in shares. This can cause the number of incoming funds due to investors' assessment of the company to have no impact on being used as funds in the company's investment decisions.

The Effect of Firm Size on Investment Decisions

The results show that firm size has a significant positive effect on investment decisions. This is consistent with the research of Starr et al. (2019). An increase in company size will indicate an increase in company sales. This increase in sales illustrates the company's ability to be in excellent condition. High profits due to increased sales will also make it easier to enter the capital market. Investors in the capital market will respond positively to their willingness to invest in this

company. The company will obtain sufficiently large funds and the company's long-term investment decisions will be even more significant because the company's capital increases from investors.

Conclusion

Based on the results of the research and discussion carried out in the previous sections, this study provides conclusions that operating cash flow and company size have significant positive effects on investment decisions. Yet, the firm value has no significant impact on investment decisions.

This study can provide suggestions related to the investment decision. As potential investors and creditors, stakeholders must pay attention to the company's considerations for investing. This is because the company can use the funds from investors and creditors to improve investment decisions. It is hoped that investors will still benefit from the result of this investment decision as well as the collateral.

Moreover, in this study, samples selected are from publicly listed companies in the manufacturing sector. Since Indonesia has more sectors, thus the research still has weaknesses because it cannot cover all go-public companies. Thus, further research can add more samples from other sectors, such as banking, mining, plantation, and many others in order to capture the phenomena existing in each sector. In addition, this study only uses three variables, which are still lacking in expressing the variability of investment decisions. So, future researchers can add other explanatory variables that influence the company's investment decisions.

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