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The Effect of Capital Structure and Liquidity on Investment Decisions with Profitability as Intervening Variable in Manufacturing Companies Listed on Bei

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ABSTRACT: This study aims to examine the effect of capital structure and liquidity on investment decisions with profitability as an intervening variable. The method used in this sampling is purposive sampling. The sample in this study were 63 manufacturing companies listed on the Indonesia Stock Exchange for the 2018-2020 period. The data analysis technique used in this research is the path analysis technique and the Sobel test. The results showed that capital structure had a negative and significant effect on profitability and liquidity had no effect on profitability, then capital structure, liquidity and profitability had a positive and significant effect on investment decisions.

KEYWORDS: capital structure, liquidity, profitability, investment decisions.

INTRODUCTION

Investment decisions when viewed from the aspect of time period can be grouped into 2 (two) major groups, namely short-term investment or working capital and long-term investment. Short-term investment is the allocation of funds in current assets in the form of cash, marketable securities, receivables, and inventories. While long-term investment is the allocation of funds in the form of fixed assets, such as land, buildings, machinery, equipment, and other fixed assets. The investment activities carried out by the company will determine the profits to be obtained by the company in the future, the more appropriate the investment policy taken by the company is believed to be able to increase the company's profitability as an aspect of company profits.

The results of research conducted by Wijaya (2011) which examines the effect of profitability on investment decisions which states that profitability has a positive effect on investment decisions. This is in line with research conducted by Rahmad (2017). However, different things were conveyed from the research conducted by Mia and Yuniningsih (2020) which stated that profitability had no effect on investment decisions.

According to the Trade off Theory, one way to increase the company's profitability is to optimize the level of debt owned by the company.According to Brigham and Houston (2011: 183), tradeoff theory is a theory of capital structure which states that companies exchange tax benefits from the use of debt with problems caused by potential bankruptcy. The trade-off theory has the implication that managers will think in terms of trade-offs between tax savings and the cost of financial difficulties in determining capital structure. Companies with a high level of profitability will certainly try to reduce their taxes by increasing their debt ratio, so that the additional debt will reduce taxes and in fact financial managers rarely think so. The greater the proportion of debt, the greater the tax protection obtained and the greater the proportion of debt, the greater the bankruptcy costs that may arise. So,

The results of research conducted by Anh Dhong (2013) and Siringorino who examined the effect of capital structure on investment decisions stated that capital structure had a positive effect on investment decisions. Different things were conveyed from research conducted by Risa (2014) which stated that capital structure had a negative effect on investment decisions.

Another factor that influences investment decisions is liquidity. Liquidity is the ability of a company to pay its short-term debt by using its current assets (Owolabi, 2012). A company must have the ability to pay financial obligations in order to maintain the continuity of its business activities. High liquidity indicates that the company has greater current assets than current liabilities, so the company has a high opportunity to carry out investment activities.

Research conducted by Munir (2014) which examines the effect of liquidity on investment decisions with research results stating that liquidity has a positive effect on investment decisions. This is in line with research conducted by Hartono and Wahyudi (2017), but different things are stated from research conducted by Mia and Yuniningsih (2020) which states that liquidity has no effect on investment decisions.

In this study, in addition to the factors that influence investment decisions, there are also factors that affect the company's profitability, including capital structure and liquidity (Setyanusa and Astita, 2013). The company's goals will not be achieved if there is no optimal capital structure and liquidity as a support used to obtain maximum profitability.

The leverage ratio or also known as the debt ratio is a ratio used to measure the ratio of the funds provided by the owner to the funds borrowed from the company's creditors. Given the importance of the role of capital structure, management must have expertise in developing an optimal capital structure. The leverage ratio consists of debt to assets ratio and debt to equity ratio (Riyanto, 2014: 333).

The results of research by Margaretha and Khairunisa (2016) show that the capital structure in this case is measured using the debt to equity ratio, which has a significant negative effect on profitability (return on assets). The same thing was also stated by Novita (2015) and Pradnyanita (2019) who obtained the results that capital structure had a negative effect on profitability. This conclusion contradicts the results obtained from research by Gill, et al., (2011) found a positive and significant relationship between SDAR and ROE in service and manufacturing companies, a positive and significant relationship was also found between LDAR and ROE in manufacturing companies, while in service companies the ratio of LDAR and ROE has a positive but not significant effect.

The results of the research by Setyanusa and Astita (2013) show that liquidity has a significant positive effect on profitability, meaning that the increase in liquidity will affect the increase in profitability. The same thing was also conveyed from research conducted by Asiah (2011), Manyo (2013) and Novita (2015) stating that liquidity has a positive effect on profitability. While the results of Pradnyanita's research (2019) stated that liquidity had a negative effect on profitability. The same thing was also stated by Margaretha and Khairunisa (2016) which stated that liquidity in this case measured using the current ratio had no effect on return on assets.

Research conducted by several researchers has shown inconsistent results which may be due to other factors that also influence the relationship between capital structure and liquidity on profitability and investment decisions. This research is focused on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2018-2020. Manufacturing companies are companies that process raw goods into semi-finished goods or finished goods so as to add value to these goods. The growth of manufacturing industry companies holds a dominant position in economic development in Indonesia because it is directly related to people's everyday purchasing power (Adnyana and Badjra, 2014). Good manufacturing company performance will increase public confidence in the company, And vice versa if the performance of manufacturing companies is less than optimal then the level of public confidence in the company will decrease. Companies that have good performance can generate profits where some of these profits can be retained for investment purposes and some can be distributed as dividends.

The reason for choosing a manufacturing company as the object of research is because manufacturing companies listed on the Indonesia Stock Exchange consist of various industrial sub-sectors so that they can reflect the reaction of the capital market as a whole. Manufacturing companies also have the largest number of companies on the Indonesia Stock Exchange. Manufacturing companies are companies that have continuous production activities, so to maintain this continuity, companies need large amounts of funds, which causes manufacturing companies to need more sources of funds for the long term, to finance the company's operations, one of which is investment by investors. and will be very interesting if it is associated with dividends as part of the profits distributed to shareholders.

The selection of the research period in 2018 - 2020 is also a matter of concern. The basis for consideration is that in 2017-2019 there was a slowdown in investment growth in the manufacturing industry sector, then in 2019 there was a global crisis caused by the COVID-19 pandemic, the phenomenon caused a decline in company activities. Thus, related to this phenomenon, the period 2018 - 2020 is used in this study because in that year the company is considered to be able to better and accurately disclose and report its social responsibility.

LITERATURE REVIEW

Effect of Capital Structure on Profitability

According to Brigham and Houston (2001: 33): Trade Off Theory assumes the company balances the benefits of funding with debt (favorable corporate tax treatment) with interest rates and bankruptcy costs. Based on this theory, companies with a high level of profitability will certainly try to reduce their taxes. The way that companies can do to reduce their income taxes is to increase their debt ratio, so that the additional debt will reduce taxes. However, companies with debt that is too high then the benefits of using debt will be lower than the benefits obtained. Based on this consideration, the company can reduce the cost of using debt in the hope that the profit earned by the company will increase.

Based on the overall description, it can be seen that the higher the DER indicates the higher the risk of failure that may occur in the company. Companies that have a large DER will affect the expected level of profit. The previous research conducted by Dewi et al and Kirya (2015), Chandra et al and Agusti (2016) found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability.Based on the explanation above, the hypothesis proposed in this study is as follows:

H1: Capital structure has a negative effect on profitability

Effect of Capital Structure on Investment Decisions

The capital structure is permanent financing consisting of short-term debt, preferred stock, and shareholder capital. According to Brightnam and Houston (2016), capital structure is a combination of debt and equity in the company's long-term financial structure. Capital structure is an important issue for the company because the good or bad capital structure will have a direct effect on the company's financial, which in turn will affect investment decisions in a company. The capital structure shows the proportion of the use of debt to finance their investment, so that by knowing the capital structure investors can find out the balance between risk and the rate of return on their investment.

Based on all these descriptions, if a company in meeting its funding needs prioritizes sources from within the company, it will reduce dependence on outside parties. A good capital structure will increase the company's investment. The previous research conducted by Anh Dhong (2013) and Siringorino (2015) showed that capital structure had a positive effect on investment decisions.Based on the explanation above, the hypothesis proposed in this study is as follows:

H2: Capital structure has a positive effect on investment decisions.

Effect of Liquidity on Profitability

High liquidity without the use of its value to generate profits for the company will be a burden because it can be said that the cash is idle (idle funds), the number of uncollectible receivables and the low number of short-term loans. Different results will arise if the company plans high liquidity as working capital in anticipation of payment of short-term debt or part of long-term debt that will have to be paid immediately.

Research by Asiah (2011) on the textile industry listed on the Indonesia Stock Exchange for the period 2003-2007 states that CR has a positive and significant effect on company profitability. Research by Manyo (2013) on 43 companies listed on the Nigerian Stock Exchange for the period 2000-2009 states that the CR variable has a positive and significant effect on ROA. Salehi (2012) conducted a study on 120 manufacturing companies listed on the Tehran Stock Exchange for the period 2006-2010 stating that CR has a positive and significant effect on ROA when the company's management manages it as working capital properly.Based on the explanation above, the hypothesis proposed in this study is as follows:

H3 : Liquidity has a positive effect on profitability.

The Effect of Liquidity on Investment Decisions

According to Hanafi and Halim (2014) liquidity is the company's ability to meet its short-term obligations. This understanding shows whether with the available cash the company has difficulty funding its investment or not. The company is said to have no difficulty in funding its investment if the company is able to generate cash to finance the investment. The greater the company's liquidity, its capital structure/debt will decrease, because with high liquidity the company has available funds that can be used to finance the company's needs with its own capital. In making investment decisions, the cost of own capital is taken into account rather than taking the risk.

The previous research conducted by Munir (2014)Effect of Liquidity on Investment Decisions and research conducted by Hartono and Wahyudi (2017) analysis of factors that influence investment decisions in property and real estate companies states that liquidity has a positive effect on investment decisions.Based on the explanation above, the hypothesis proposed in this study is as follows:

H4 : Liquidity has a positive effect on investment decisions.

The Effect of Profitability on Investment Decisions

According to Birmingham and Gapenski (2006) profitability is the end result of a number of company management policies and decisions, so it can be said that profitability is the company's ability to obtain net income from activities carried out in the accounting period.

The relationship between profitability is related to decisions, including investment decisions, namely as a budget setting from profit projections. Profitability is an important consideration for investors in investment decisions. Companies that have a greater ROA are more effective and efficient in using their overall assets in generating net income. And conversely, a company with a small ROA means that the company is not effective and efficient in using its assets to generate profits. In addition, the higher the profitability of a company, the greater its ability to pay dividends. So that investors will be interested in investing in companies that produce a high level of profitability.
The previous research conducted byWijaya and Langgeng (2011), Hartono and Wahyudi (2017) and Rahmad (2017) show that profitability has a positive effect on investment decisions.Based on the explanation above, the hypothesis proposed in this study is as follows:
H5: Profitability has a positive effect on investment decisions.

Effect of Capital Structure on Investment Decisions Through Profitability as an Intervening

According to Brightnam and Houston (2016), capital structure is a combination of debt and equity in the company's long-term financial structure. Capital structure is an important issue for the company because the good or bad capital structure will have a direct effect on the company's financial, which in turn will affect investment decisions in a company. A good capital structure will increase the company's investment. The previous research conducted by Anh Dhong (2013) and Siringorino (2015) showed that capital structure had a positive effect on investment decisions.
Companies with a high level of profitability will certainly try to reduce their taxes. The way that companies can do to reduce their income taxes is to increase their debt ratio, so that the additional debt will reduce taxes. the higher the DER indicates the higher the risk of failure that may occur in the company. Companies that have a large DER will affect the expected level of profit. The previous research conducted by Dewi et al and Kirya (2015), Chandra et al and Agusti (2016) found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability.
Profitability is the result achieved by the company which is measured in percentage which is used to assess the extent to which the company is able to generate profits at a certain level and period. Based on signaling theory, that when investors will make an investment decision. Investors will see the signals given by the company. These signals can be in the form of information regarding the profitability of the company. The higher and more stable the company's profitability, the more interested investors will be to invest in the company.
Logically, the higher and more stable the company's profitability, the more positive the signal received by investors in making investment decisions. This means that investors tend to look towards large profits and an increase in company profits. This high profitability can be indicated as a positive signal and a need for investors to invest in the company. Putra and Ida (2015) state that the level of profitability describes the company's performance as seen from the company's ability to generate profits. The higher the value of the profitability ratio, the higher the company's ability to earn profits and the more prospects or guaranteed investment decisions in the company.
Previous research conducted by Anjani (2012), Safitri (2016), Rahmiati and Putri (2015), Ogilo and Billeil (2015), Ikhsandi (2015) and Wijaya and July (2011) showed that profitability had a positive effect on investment decisions. The signal given by the company with high profitability will further increase the desire of investors in making investment decisions. The higher the profitability, the higher the investment decisions that will be made.
From some of these descriptions, it can be seen that profitability is able to influence the effect of capital structure on investment decisions.Based on the explanation above, the hypothesis proposed in this study is as follows:
H6: Profitability is able to mediate the effect of capital structure on investment decisions

The Effect of Liquidity on Investment Decisions Through Profitability as an Intervening

The company is said to be liquidity if the company's paying power is large and able to fulfill all its obligations (Riyanto, 2010:26). Research by Asiah (2011), Salehi (2012) and Manyo (2013) states that liquidity has a positive effect on profitability
The greater the company's liquidity, its capital structure/debt will decrease, because with high liquidity the company has available funds that can be used to finance the company's needs with its own capital. In making investment decisions, the cost of own capital is taken into account rather than taking the risk. previous research conducted by Munir (2014)the effect of liquidity on investment decisions and research conducted by Hartono and Wahyudi (2017) states that liquidity has a positive effect on investment decisions.
From some of these descriptions, it can be seen that profitability is able to influence the influence of liquidity on investment decisions.Based on the explanation above, the hypothesis proposed in this study is as follows:
H7: Profitability is able to mediate the influence of liquidity on investment decisions

RESEARCH METHODS

In this study using a quantitative approach in an effort to test the hypotheses that have been compiled, the research process uses a lot of numbers starting from the collection, interpretation and presentation of results (Arikunto, 2016:12). A process of finding knowledge that uses data in the form of numbers as a tool to analyze information about what you want to know (Kasiram, 2018:149).

The location of this research was carried out in companiesn-companies listed on the Indonesia Stock Exchange by accessing*www.idx.co.id.*The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange for the 2018-2020 period, which are 198 companies. The sample selection in this study was carried out using the purpositive sampling method with the aim of obtaining a representative sample in accordance with the specified criteria. The sample criteria to be used are: Manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. Manufacturing companies whose financial reports and annual reports can be accessed consecutively during the 2018-2020 observation year. Manufacturing companies that have complete information about the variables needed in this study. Based on the criteria of the sample companies that have been determined, there are 63 companies that meet the criteria.

Based on the hypothesis, there are four variables determined in this study, namely: capital structure, liquidity, profitability and investment decisions. These variables became the basis for the preparation of research instruments after the sample was determined, followed by data collection. Furthermore, the data was processed using PLS analysis techniques. The results of the analysis are then interpreted and followed by concluding and giving suggestions.

RESEARCH RESULTS AND DISCUSSION

Path Analysis Results

Testing the data in this study uses path analysis techniques, where path analysis is an extension of multiple linear regression analysis to test the causal relationship between 2 or more variables. The stages of performing path analysis techniques are:

1) Calculation of path coefficients and determine structural model equations

Path coefficient calculationcarried out using SPSS software18.0 for Windows, and the results are shown in Table 5.7 below:

Table 5.7 Path Analysis Test Results (Structure 1)

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.033	.018		1,798	.074
	Capital Structure	-.133	.012	-.621	-10,750	.000
	Liquidity	.020	.002	.070	1.218	.225

a. Dependent Variable: Profitability

Source: Primary data processed, 2022 (Appendix 7)

Based on the results of the path analysis of substructure 1 as presented in Table 5.7, the following structural equations can be made:

M = -0.113 X1 + 0.020 X2 + e1

The regression coefficient value of the liquidity variable is positive with a significance of more than 0.05, which means that liquidity has a positive effect and has no significance (no effect) onProfitability (M).While the capital structure variable has a negative effect with a significant value of less than 0.05, this means that the capital structure has a negative and significant effect on the Profitability (M) variable.

Table 5.8 Path Analysis Test Results (Structure 2)

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,735	.182		9.546	.000
	Capital Structure	.389	.154	.224	2.521	.013
	Liquidity	.060	.017	.246	3.511	.001
	Profitability	1,694	.716	.209	2,364	.019

a. Dependent Variable: Investment Decision

Source: Primary data processed, 2022 (Appendix 7)

Based on the results of the analysis of substructure path 2 as presented in Table 9,then the structural equation can be made as follows:

Y = 0.389 X1+ 0.060 X2 + 1.694 M + e2

The regression coefficient value of the capital structure, liquidity and profitability variables is positive. This shows that the variables of capital structure, liquidity and profitability have a positive and significant relationship toInvestation decision(Y).

2) CoefficientDetermination (adjusted R2)

The coefficient of determination essentially measures how far the model's ability to explain the variation of the dependent variable (Ghozali, 2016). In this statistical calculation, the R^2 value used is adjusted R^2 because this is one indicator to determine the effect of adding one independent variable into a regression equation. The results of the coefficient of determination in this study can be seen in Table 5.9 as follows:

Table 5.9. Coefficient of Determination Results

Structure	Equality	*R Square*	*Adjusted R Square*
1	M = -0.113 X1 + 0.020 X2 + e1	0.383	0.377
2	Y = 0.389 X1+ 0.060 X2 + 1.694 M + e2	0.107	0.093

Source: Primary data processed, 2022 (Appendix 3)

Table 5.9 shows the structural equation 1 (path analysis 1) the magnitude of the influence of the independent variable on the dependent variable is indicated bythe value of determination (Adjusted R Square) of 0.377 means that 37.7% of the variation in profitability is influenced by variations in capital structure(X1), andliquidity(X2),while the remaining 62.3% is explained by other factors that are not included in the model.

While in the structural equation 2 (path analysis 2) the magnitude of the influence of the independent variable on the dependent variable is indicated bythe value of determination (Adjusted R Square) of 0.093 means that 9.3% variation in investment decisions is influenced by variations in capital structure(X1),liquidity(X2), andProfitability(M), while the remaining 90.7% is explained by other factors not included in the model.

Based on the substructure 1 and substructure 2 models, a final path diagram model can be drawn up. Before compiling the final path diagram model, first calculate the standard error values as follows:

ei =$\sqrt{1-\mathrm{R_i}^2}$

e1 =$\sqrt{1-R_1{}^2}$= = 0.785$\sqrt{1-0{,}383}$

e2 =$\sqrt{1-R_2{}^2}$= = 0.945$\sqrt{1-0{,}107}$

Based on the calculation of the effect of error (ei), the effect of error (e1) is 0.785 and the effect of error (Pe2) is 0.945. The results of the coefficient of total determination are as follows:

R^2m = 1 – (e1)2 (e2)2

$= 1 - (0.785)^2(0.945)2$

$= 1 - (0.616)\ (0.893)$

$= 1 - 0.550 = 0.450$

The total determination value of 0.450 means that 45% of the variation in investment decisions is influenced by variations in capital structure,liquidity, andProfitability, while the remaining 55% is explained by other factors not included in the model.

Based on the path diagram in Figure 2, it can be calculated the magnitude of the direct and indirect effects as well as the total effect between variables. The calculation of the effect between variables is summarized in Table 5.10 as follows.

Table 5.10 Direct and Indirect Effects and Total Effects of Research Variables

Variable Effect	**Direct Influence**	**Indirect Influence Through Profitability (Y)**	**Total Influence**
X1 → M	-0.133	-	-0.133
X2 → M	0.020	-	0.020
M → Y	1,694	-	1,694
X1 → Y	0.389	(-0.133 x 1.694) = -0.225	0.164
X2 → Y	0.060	(0.020 x 1.694) = 0.030	0.063

Source: Primary data processed, 2022 (Appendix 7)

5.3 Simultaneous Test Results (F Test)

The model feasibility test (F test) basically shows whether the independent variables included in the model have a joint effect on the dependent variable (Ghozali, 2016). If the significance value of Fcount or P value 0.05, then the relationship between the independent variables is significantly influential on the dependent variable. The results of the simultaneous test (F test) in this study can be seen in full, summarized in Table 11 as follows:

Table 5.11

F . Test Results

Structure	**Equality**	**F statistics**	**Significance F Uji test**
1	M = -0.113 X1 + 0.020 X2 + e1	57,851	0.000
2	Y = 0.389 X1+ 0.060 X2 + 1.694 M + e2	7,412	0.000

Source: Primary data processed, 2022 (Appendix 3)

The results of the F test (F test) contained in Table 11 show that the calculated F value in structural equation 1 (path analysis 1) is 57.851 with a significance value of P value 0.000 less than = 0.05, this means the model used in this study is worth it. This result means that all independent variables, namely capital structure(X1), andliquidity(X2)simultaneous effect on profitability. This means that the model can be used for further analysis or in other words the model can be used to project a Profitability research model.

The results of the F test (F test) contained in Table 12 also show that the calculated F value in structural equation 2 (path analysis 2) is 7.412 with a significance value of P value 0.000 which is smaller than = 0.05, this means that the model used in this study is feasible. This result means that all independent variables, namely capital structure(X1),liquidity(X2), and Profitability (M) simultaneously influence investment decisions. This means that the model can be used for further analysis or in other words the model can be used to project investment decision research capital.

5.4 Hypothesis Test Results (t test)

The effect of capital structure variables, liquidity and government spending on profitability and the effect of capital structure variables, liquidity, government spending and Profitability of investment decisions are tested using the t test. The test criteria to explain the interpretation of the influence between each variable is if the significance value <0.05 then H0 is rejected and H1 is accepted. On the other hand, if the significance value is > 0.05, then H0 is accepted and H1 is rejected. The exposure of the influence between variables can be explained as follows:

1) Effect of Capital Structure on Profitability

Based on the results of the analysis of the effectCapital structure on profitabilityobtained a significance value of 0.000 with a negative regression coefficient of -0.133. Significance value 0.000 < 0.050 indicates that H1 is accepted. This result means thatcapital structuretake effectnegative and significant to profitability.

2) The effect of liquidity on profitability.

Based on the results of the analysisthe effect of liquidity on profitability obtained a significance value of 0.225 with a positive regression coefficient of 0.020. Significance value 0.225 > 0.05 indicates that H2 is rejected. This result means that liquidity has no effect on profitability.

3) Effect of capital structure on investment decisions

Based on the results of the analysis of the effectcapital structure on investment decisionsobtained a significance value of 0.013 with a positive regression coefficient of 0.389. Significance value 0.013 < 0.05 indicates that H3 is accepted. This result means thatcapital structuretake effectpositive and significant impact on investment decisions.

4) Effect of liquidity on investment decisions.

Based on the results of the analysisthe influence of liquidity on investment decisions obtained a significance value of 0.001 with a positive regression coefficient value of 0.389. Significance value of 0.001 <0.05 indicates that H4 is accepted. This result means that liquidity has a positive and significant effect on investment decisions.

5) The Effect of Profitability on Investment Decisions

Based on the results of the analysis of the effectProfitability on investment decisionsearned valuesignificantsi of 0.019 with a positive regression coefficient of 1.694. Scoresignificantsi 0.019 < 0.05 indicates that H5 is accepted. This result means thatProfitabilitytake effectpositive and significant impact on investment decisions.

5.5 Sobel Test Results

Sobel test is an analytical tool to test the significance of the indirect relationship between the independent variable and the dependent variable mediated by the mediator variable. The Sobel test is formulated with the following equation and can be calculated using the Microsoft Excel 2007 application. If the Z calculation value is greater than 1.96 (with a 95 percent confidence level), then the mediator variable is assessed to significantly mediate the relationship between the dependent variable and the independent variable.

Testing the indirect effect of the capital structure variable (X1) on the investment decision variable (Y) through the Profitability variable (M), carried out with the following steps:

1) Hypothesis Formulation

Ho: Profitability is not able to mediate the effect of the capital structure variable on investment decisions.

H1 : Profitability is able to mediate the effect of the variable capital structure on investment decisions.

2) Testing Criteria

The test criteria used are as follows:

If the absolute value of Z count 1.96 then H0 is accepted, meaning profitability is not a mediating variable.

If the absolute value of Z count > 1.96 then H0 is rejected, meaning that profitability is a mediating variable.

3) Calculating Test Statistics

To test the significance of the indirect effect, the z value of the ab coefficient is calculated by the following formula:

$$S_{ab} = \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2}$$

$$S_{ab} = \sqrt{(1{,}694)^2(0{,}012^2) + (0{,}133)^2(0{,}716)^2 + (0{,}012^2)(0{,}716)^2}$$

S_{ab} = 0.0096

Information :

Sat =the magnitude of the indirect standard error

Sa =standard error coefficient a

Sb =standard error coefficient b

a =path X1 to M

b =path M to Y

ab =path X1 to M (a) with path M to Y (b)

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{ab}{Sab}$$

$$Z = \frac{(0{,}133)(1{,}694)}{0{,}0096}$$

$$Z = 2.3048$$

4) Conclusion

Therefore, Z count is 2.3048 > 1.96. This means that profitability (M) is a variable that mediates capital structure (X1) on investment decisions (Y) or in other words capital structure has an indirect effect on investment decisions.

Testing the indirect effect of the Liquidity variable (X2) on the Investment Decision variable (Y) through the Profitability variable (M), carried out with the following steps:

1) Hypothesis Formulation

Ho: Profitability is not able to mediate the effect of the Liquidity variable on investment decisions.

H1 : Profitability is able to mediate the effect of the Liquidity variable on investment decisions.

2) Testing Criteria

The test criteria used are as follows:

If the absolute value of Z count 1.96 then H0 is accepted, meaning profitability is not a mediating variable.

If the absolute value of Z count > 1.96 then H0 is rejected, meaning that profitability is a mediating variable.

3) Calculating Test Statistics

To test the significance of the indirect effect, the z value of the ab coefficient is calculated by the following formula:

$$S_{ab} = \sqrt{b^2S_a^2 + a^2S_b^2 + S_a^2S_b^2}$$

$$S_{ab} = \sqrt{(1{,}694)^2(0{,}002^2) + (0{,}020)^2(0{,}716)^2 + (0{,}020^2)(0{,}716)^2}$$

$$S_{ab} = 0.002$$

Information :

Sat =the magnitude of the indirect standard error

Sa =standard error coefficient a

Sb =standard error coefficient b

a =path X2 with respect to M

b =path M to Y

ab =path X2 to M (a) with path M to Y (b)

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{ab}{Sab}$$

$$Z = \frac{(0{,}020)(1{,}694)}{0{,}0002}$$

$$Z = 2.2915$$

4) Conclusion

Therefore, Z count is 2.2915 > 1.96. This means that profitability (M) is a variable that is able to mediate liquidity (X2) on investment decisions (Y) or in other words liquidity has an indirect effect on investment decisions through profitability.

5.6 Discussion

5.6.1 Effect of capital structure on profitability

The results of the analysis show that the capital structure has a significant negative effect on profitability. This means that if the capital structure ratio is greater, the amount of long-term debt will increase so that the interest expense will increase and operating profit will decrease because it is used to pay off the interest expense which will result in a higher net profit after tax. less will be accepted by the company.

The results of this study support research conducted by Dewi, Cipta, and Kirya (2015), Chandra, Kamaliah, and Agusti (2016) who found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability. So the higher the company's debt, the lower the profitability with ROA proxy. This is because debt can have a negative impact on company performance because a high debt burden can reduce company profits. The company's capital structure which tends to be dominated by debt will increase the interest expense borne by the company, resulting in a decrease in company income, but the tax that must be paid by the company will be small.

5.6.2 Effect of capital structure on investment decisions

The results of the analysis show that the capital structure has a positive and significant effect on investment decisions. This means that the better the capital structure of the company, the more interest of investors to invest in manufacturing companies on the IDX, because the company in its operational activities by using debt, the company is able to increase the level of profit.

The results of this study support research conducted byAnh Dhong (2013) and Siringorino (2015) show that capital structure has a positive effect on investment decisions.Capital structure is the ratio between the debt owned by the company and its total equity. The capital structure reflects the company's ability to meet all of its obligations as indicated by some part of its own capital which is used to pay debts. This ratio shows the comparison between borrowed funds or debt and capital in the company's development efforts.

5.6.3 Effect of liquidity on profitability

The results of the analysis show that liquidity has no significant positive effect on profitability. This means that the liquidity (CR) of manufacturing companies listed on the IDX is relatively stable in growth, so that CR does not affect profitability in this case ROE. The same thing can also happen because the company has assets that are not or underused to be able to generate more profit, because the existing funds are used more for asset turnover within the company.

This result is different from research conducted by Asiah (2011) on the textile industry listed on the Indonesia Stock Exchange for the period 2003-2007 which states that CR has a positive and significant effect on company profitability. Research by Manyo (2013) on 43 companies listed on the Nigerian Stock Exchange for the period 2000-2009 states that the CR variable has a positive and significant effect on ROA. Salehi (2012) conducted a study on 120 manufacturing companies listed on the Tehran Stock Exchange for the period 2006-2010 stating that CR has a positive and significant effect on ROA when the company's management manages it as working capital properly.

5.6.4 Effect of liquidity on investment decisions

The results of the analysis show that liquidity has a positive and significant effect on investment decisions. This means that the company makes an investment decision by maximizing the use of current assets with a relatively short period of time compared to using fixed assets.

The results of this study support research conducted byMunir (2014)Effect of Liquidity on Investment Decisions and research conducted by Hartono and Wahyudi (2017) analysis of factors that influence investment decisions in property and real estate companies states that liquidity has a positive effect on investment decisions. The high current ratio bias is influenced by several things, namely the amount of cash flow, as well as the level of credibility of the company in relation to creditors. The company's management will use the existing liquidity potential to pay off short-term obligations and fund the company's operations, with good liquidity will later attract investors' interest in making decisions to invest in the company.

5.6.5 The effect of profitability on investment decisions

The results of the analysis show that profitability has a positive and significant effect on investment decisions. This means that the higher the profitability generated by the company, the higher the interest of investors to invest. In accordance with signaling theory which states that high profitability can be interpreted by external parties as a positive signal for the company's good performance. Because a company that has a large amount of profit (large amount) can use its profits in large quantities to fund the company's assets.

The results of this study support the research conductedbyWijaya and Langgeng (2011), Hartono and Wahyudi (2017) and Rahmad (2017) show that profitability has a positive effect on investment decisions. This shows that the greater the company's ability to earn profits, the company will tend to make decisions to invest. This is because the profit earned is one source of funds for investment activities.

5.6.6 Effect of capital structure on investment decisions with profitability as an intervening variable

The results of the analysis show that profitability is able to mediate the effect of capital structure on investment decisions or in other words capital structure has an indirect effect on investment decisions through profitability. This means that the sample company can increase investor interest in making investment decisions by increasing debt, where the increase in debt can also increase profitability which can indirectly increase investor interest in investing higher.

The results of this study support research conducted by Dewi, Cipta, and Kirya (2015), Chandra, Kamaliah, and Agusti (2016) who found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability. Previous research conducted by Anjani (2012), Safitri (2016), Rahmiati and Putri (2015), Ogilo and Billeil (2015), Ikhsandi (2015) and Wijaya and July (2011) showed that profitability had a positive effect on investment decisions. The signal given by the company with high profitability will further increase the desire of investors in making investment decisions. The higher the profitability, the higher the investment decisions that will be made.

5.6.7 Effect of liquidity on investment decisions with profitability as an intervening variable

The results of the analysis show that profitability is able to mediate the influence of liquidity on investment decisions or in other words liquidity has an indirect effect on investment decisions through profitability. This means that the company makes an investment decision by maximizing the use of current assets which will directly increase the company's profitability. With the increase in the company's profitability, it will attract interest from investors to carry out investment activities in the company.

The results of this study support research conducted by Asiah (2011), Salehi (2012) and Manyo (2013) stating that liquidity has a positive effect on profitability.Previous research conducted by Munir (2014)the effect of liquidity on investment decisions and research conducted by Hartono and Wahyudi (2017) states that liquidity has a positive effect on investment decisions. From some of these descriptions, it can be seen that profitability is able to influence the influence of liquidity on investment decisions.

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

Based on the results of research and discussion in the previous chapter, it can be concluded several things as follows:

1) Capital structuretake effectsignificant negative on profitability. This means that if the capital structure ratio is greater, the amount of long-term debt will increase so that the interest expense will increase and operating profit will decrease because it is used to pay off the interest expense which will result in a higher net profit after tax. less will be accepted by the company.

2) Liquidity has no significant positive effect on profitability. This means that the liquidity (CR) of manufacturing companies listed on the IDX is relatively stable in growth, so that CR does not affect profitability in this case ROE. The same thing can happen because the company has assets that are not or are underutilized to be able to generate more profit.

3) Capital structure has a positive and significant effect on investment decisions. This means that the better the capital structure of the company, the more interest of investors to invest in manufacturing companies on the IDX.

4) Liquidity has a positive and significant effect on investment decisions. This means that the company makes an investment decision by maximizing the use of current assets with a relatively short period of time compared to using fixed assets

5) Profitability has a positive and significant effect on investment decisions. This means that the higher the profitability generated by the company, the higher the interest of investors to invest. In accordance with signaling theory which states that high profitability can be interpreted by external parties as a positive signal for the company's good performance. Because a company that has a large amount of profit (large amount) can use its profits in large quantities to fund the company's assets.

6) Profitability is able to mediate the effect of capital structure on investment decisions or in other words capital structure has an indirect effect on investment decisions through profitability. This means that the sample company can increase investor interest in making investment decisions by increasing debt, where the increase in debt can also increase profitability which can indirectly increase investor interest in investing higher.

7) Profitability is able to mediate the influence of liquidity on investment decisions or in other words liquidity has an indirect effect on investment decisions through profitability. This means that the company makes an investment decision by maximizing the use of current assets which will directly increase the company's profitability. With the increase in the company's profitability, it will attract more interest than investors to carry out their investment activities in the company.

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