



## Determinants of Funding Decision: Empirical Evidence from Companies Listed in Indonesia Stock Exchange

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### Article Information

*Article History:*  
Received March 2021  
Approved April 2021  
Published June 2021

### Keywords:

**Debt to Equity Ratio, Investment Opportunity Set, Managerial Ownership, Institutional Ownership, Profitability**

### Abstract

The funding decision is an important decision for the company because this is the main decision in financial management that will directly influence the company's financial position. The phenomenon from 2014-2018 describes that companies listed on the Indonesia Stock Exchange have increased levels of debt and debt to equity ratio so the proportion of debt still dominates in the company's capital structure. This study intends to test empirically the impact of the investment opportunity set (IOS), managerial ownership, institutional ownership, and profitability on corporate funding decisions. The population of this research is all companies listed on the Indonesia Stock Exchange for the period 2014-2018. Samples that match the criteria based on the purposive sampling technique are 83 companies with a period of 5 years in order to obtain a result of 415 units of observations. Data were collected using the documentation method/secondary data. Data were analyzed using the panel data regression method and processed using Eviews version 9 software. The results of the research evidence that the investment opportunity set (IOS) has a significant positive effect on funding decisions, while institutional ownership and profitability have a significant negative effect on funding decisions. However, managerial ownership has no significant effect on funding decisions. For further researchers, it is suggested to develop a similar theme by adding variables that influence funding decisions, changing managerial ownership proxies, and adding IOS proxies to get better research results.

### INTRODUCTION

A company was established with the purpose of optimizing the welfare of its owners, one of which is through a financial management mechanism, specifically by a funding policy (Pratama et al., 2018). Funding decisions are an important part of a company because they are the focus of financial management which will have a direct impact on the financial position (Febriana & Yulianto, 2017; Selviana & Badjra, 2018). According to Dewi and Wirama (2017), a funding decision is an effort to find the most economical source of funds or the search for a source of funds with the lowest cost of capital to coincide

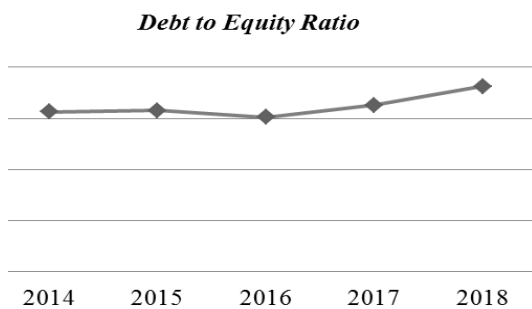
with a precise amount. These funds can usually be derived from internal sources in the form of retained earnings or external sources from bonds and stocks (Darmayanti & Suryantini, 2017).

Haryanto (2014) states that a funding decision is a trade-off between risk and rate of return which means that additional debt will increase the risk of the company as well as increase the expected rate of return. Therefore, the optimal capital structure is a capital structure that maximizes the balance between risk and rate of return so it increases the company's stock price (Indriani & Widarti, 2013). The complexity of determining optimal funding decisions makes managers prefer to use debt because of the benefits and costs of

trade-offs from using debt (Arilyn, 2016).

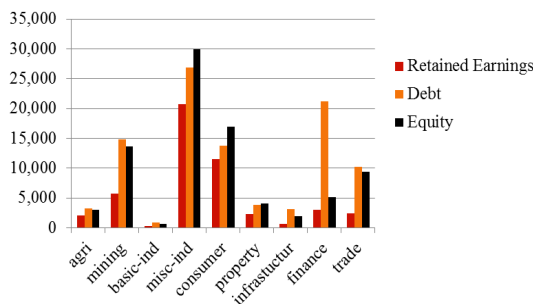
The preceding statement is evidenced by the increase in Indonesia’s foreign debt in the last five years; precisely from 163.60 billion US dollars to 193.22 billion US dollars or 20.78%. This amount consists of State-Owned Enterprises (BUMN) debt of 23.69% or 45.78 billion US dollars and private debts of 76.31% or 147.44 billion US dollars. Although the proportion of BUMN debt was smaller, this value grew by 49.13%, much higher than the growth of private debt of 10.94% YoY (Kemenkeu & BI, 2019).

Another phenomenon is also shown by the value of debt to equity ratio (DER) of companies listed on the Indonesia Stock Exchange (IDX) during 2014-2018 that generally experienced an increasing trend and experienced growth reaching 13.79%. A DER value that is higher than one indicates that the proportion of debt used in corporate funding is higher than the total capital and investors tend to avoid companies with a high DER level because this is comparable to the high risk (Indriani & Widyarti, 2013). The DER increase data can be viewed in Figure 1 below:



**Figure 1.** DER Level of Companies Listed on the IDX in 2014-2018

In a more in-depth look, the following is a comparison of the funding structures of companies listed on the IDX during 2014-2018:



**Figure 2.** Comparison of Company Funding

Figure 2 shows that the sources of funding used by companies in each industrial sector have different proportions. From the nine industrial sectors, it is known that there are six sectors that prioritize financing with debt and the other three sectors prioritize funding with equity. However, it can be seen that in all sectors of the industry, retained earnings have the lowest proportion. Thus, it can be concluded that the proportion of companies funding on the IDX during 2014-2018 was dominated by external funding, namely debt.

Research that explores the factors that influence corporate funding decisions has previously been carried out. Those factors include the investment opportunity set, ownership structure, and profitability. According to Smith and Watts (1992) investment opportunity set (IOS) is an important characteristic for companies because IOS can be used to assess the growth potential of a company. Therefore, IOS has a major influence on the company’s perspective both by managers, owners, investors, and by creditors (Kallapur, 2001). In addition, the size of investment opportunities a company has will affect the number of funds that must be provided to finance these investments (Cahyaningdyah & Ressany, 2012).

Kallapur and Trombley (1999) proved that companies that have high investment opportunity set (IOS) and low IOS will take different funding policies. Research by Udayani and Suaryana (2013); Ramli and Papilaya (2015); Hikmah et al. (2020) proved that IOS has a positive effect on funding decisions, meaning that if the IOS is high, the funding policy (debt) is also high. In contrast to Hikmah et al. (2019) which states that IOS has a negative effect on funding decisions, meaning that if IOS is high, the funding policy (debt) will be low. Meanwhile, according to Pratama et al. (2020) IOS has no effect on funding decisions.

According to Pramiska (2017), the choice of company funding sources depends on who controls the company. Because the level of ownership represents a source of power that can be used to support or oppose management policies (Suyatmini et al., 2013). Meanwhile, Jensen and Meckling (1976) states that ownership structure is used to show that the important variables in capital structure are not only determined by the amount of debt and equity, but also by the percentage of share ownership, both internal and external shareholders.

Managerial ownership is a condition in which a manager has shares in his own company or in other words, the manager has concurrent positions as a shareholder (Rahayu & Yasa,

2018). The proportion of managerial ownership that is getting bigger implies that the personal wealth of management is increasingly tied to the company's assets (Kadarusman, 2012). Therefore, managerial ownership is an incentive for managers to be more careful in making decisions because managers will also feel the impact (Nanda & Retnani, 2017).

According to Sun et al. (2015) using a universal sample of UK firms from 1998 to 2012. We use two distinctive measures to capture ownership structure, namely, managerial share ownership (MSO, managerial ownership has a positive effect on funding decisions. The increase in managerial share ownership will encourage managers to behave in entrenchment so that shareholders will use debt to reduce agency costs. In contrast to Dewata et al. (2016) which states that managerial ownership has a negative effect on funding decisions. The increase in managerial ownership makes managers who are also shareholders more careful in using debt to avoid the risk of bankruptcy. Meanwhile, according to Fayez et al. (2019) and Khafid et al. (2020), managerial ownership has no effect on funding decisions.

The next ownership structure, namely institutional ownership. A large and effective proportion of institutional ownership in a company is expected to be able to substitute the role of debt as a management control mechanism so that it can minimize the use of debt and anticipate agency problems (Nanda & Retnani, 2017). Therefore, institutional ownership is expected to tighten the supervision of opportunistic management behavior so that the management of company resources will be more effective (Gumilang et al., 2015).

Sun et al. (2015) using a universal sample of UK firms from 1998 to 2012. We use two distinctive measures to capture ownership structure, namely, managerial share ownership (MSO). Prasetyo and Fidiana (2017) found that institutional ownership has a positive effect on funding decisions. The high percentage of institutional ownership gives him more authority to select risky projects and finance them using debt in the hope of obtaining higher returns. However, Nafisa et al. (2016) and Pratama et al. (2018) stated that institutional ownership has a negative effect on funding decisions. The increase in institutional ownership makes monitoring efforts more effective because the manager's opportunistic behavior can be controlled so that the manager will reduce the level of debt optimally. Meanwhile, according to Fayez et al. (2019) and Khafid et al. (2020), institutional ownership has no effect on funding

decisions.

Alyousfi et al. (2020) found that funding decisions are inseparable from the level of profitability. Profitability describes the extent to which the company's ability to earn profits (earning power) with the resources it has to fund the investment (Zulvia, 2016). Increasing profitability indicates that the potential for retained earnings available as internal funds will increase so that the company's interest in using debt will decrease (Darmayanti & Suryantini, 2017).

Tarazi (2013) and Gharaibeh (2015) in their research found that profitability has a positive effect on funding decisions. High profitability encourages companies to use debt in order to save on tax payments because the use of debt creates interest costs which will reduce the number of tax costs. In contrast to the research of Alyousfi et al. (2020) and Khafid et al. (2020) found that profitability has a negative effect on funding decisions. High profitability will indirectly reduce the need for capital from outside companies because any profit earned by the company will increase the company's assets and can be used to pay the company's liabilities so that dependence on outsiders will be reduced. Meanwhile, according to Dewi and Wirama (2017); Rahayu and Yasa (2018), profitability has no effect on funding decisions.

Based on the results of previous research and the conditions previously described, researchers are interested in reexamining the effects of investment opportunity sets, managerial ownership, institutional ownership, and profitability on funding decisions. The object of this research is non-financial companies in the Indonesia Stock Exchange. Thus, this study aims to examine the effect of the investment opportunity set, managerial ownership, institutional ownership, and profitability on financing decisions for non-financial companies on the Indonesia Stock Exchange for the 2014-2018 period.

### **Hypotheses Development**

Funding decisions and investment opportunity sets (IOS) are interrelated because the large investment opportunities a company has will affect the number of funds that must be provided to finance these investments (Cahyaningdyah & Ressany, 2012). According to Kallapur and Trombley (1999), companies that have high growth potential have different funding policies from companies that have low growth potential. Companies with relatively high growth will tend to issue securities that are less affected by

information asymmetry, namely short-term debt (Alipour et al., 2015). Furthermore, Alipour et al. (2015) added that this causes companies with fast / relatively higher growth to have more leverage because they need to borrow more funds.

The above conditions make the company's need for funds to increase along with the many investment opportunities that will be realized (Cahyaningdyah & Ressany, 2012). Therefore, the company must determine whether it is sufficient to use its internal funds or need to increase funds from external investors (Udayani & Suaryana, 2013). This is reinforced by Fama and French (2002) which states that in a simple pecking order, generally, debt will increase when investment exceeds retained earnings and debt will decrease when an investment is less than retained earnings. Based on this explanation, the following hypothesis can be formed:

H1: The investment opportunity set has a positive effect on funding decisions.

Fayez et al. (2019) stated that funding decisions are not only influenced by company characteristics and contextual factors, but are also influenced by the views, goals, and desires of managers, namely through managerial share ownership. According to agency theory, managerial ownership is considered to align interests between management and shareholders (Suyatmini et al., 2013). Managers who are also shareholders do not expect their company to go bankrupt, so managers who usually act opportunistically to get their personal benefits to become more careful in making decisions, including regarding debt (Gusti, 2013). This is reinforced by Khoiruddin and Noekent (2011) which states that differences in interests will not occur if in a company the shareholder's act at the same time as managers.

The pecking order theory assumes that managers favor internal funding over external funding because internal funding has lower costs and risks (Myers & Majluf, 1984). High-profit expectations usually encourage shareholders to favor projects with high risk, but with the judgment that the risk due to undiversified debt is felt more by management than outside investors, managers will be more careful in using debt and looking for other alternatives that have a lower risk, such as retained earnings (Brigham & Houston, 2014). In addition, using internal funds implies that managers do not need to share the company's profits with creditors and investors (Hardiningsih & Oktaviani, 2012). Based on that explanation, the following hypothesis can be formed:

H2: Managerial ownership has a negative effect on funding decisions.

Referring to agency theory, a great and effective proportion of institutional ownership in a company is expected to be able to substitute the role of debt as a management control mechanism, so as to minimize the use of debt and anticipate agency problems (Nanda & Retnani, 2017). Monitoring agents have an active and consistent role to protect the investments that investors have made in the company so that the welfare of shareholders is more confident (Indana, 2015). Thus, the attendance of institutional investors is expected to tighten the supervision of company performance and increase company profits (Arilyn, 2016).

According to the pecking order theory, debt is an alternative for the company when internal funding is no longer sufficient (Myers, 1984). However, the large amount of debt used to fund projects or high-risk investments will cause institutional investors to sell their shares (Suriana & Saripujiana, 2015). This is because investors are worried that the company will experience the risk of default in the future and it could further lead to company bankruptcy (Sari & Prasetyono, 2015). Therefore, managers should consider using debt more in financing and look for other alternatives that have a lower risk, before using debt (Suriana & Saripujiana, 2015). Based on this explanation, the following hypothesis can be formed:

H3: Institutional ownership has a negative effect on funding decisions.

A profitable company shows the good performance of the company, which in turn, can be used as a promising guarantee in the future (Dewi & Wirama, 2017). Increasing profitability implies that the potential for retained earnings available as internal funds will increase so that the company's interest in using debt will decrease (Zulvia, 2016). That is in accordance with the pecking order theory which states that companies prioritize internal funding first, i.e funding from operating results in the form of retained earnings, then using external funding (Myers, 1984). Apart from the low cost, using internal funds implies that companies do not need to share profits with creditors or investors (Hardiningsih & Oktaviani, 2012). Based on this explanation, the following hypothesis can be formed:

H4: Profitability has a negative effect on funding decisions.

Based on the hypothesis development, the research model can be described:

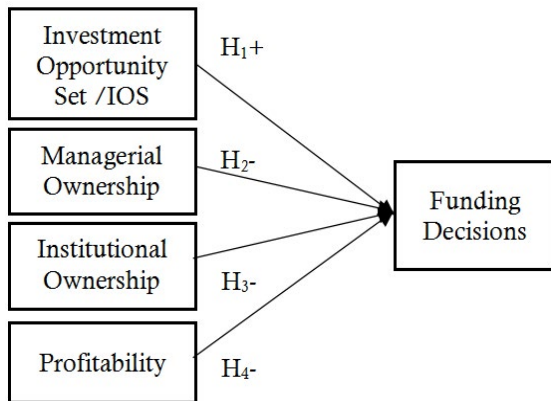


Figure 3. Research Model

**METHODS**

The type of research is an explanatory study with a quantitative approach. The research design used is a hypothesis study which is causality in nature.

The population in this study were all companies listed on the Indonesia Stock Exchange for the period 2014-2018. The sample selection in this study used the nonprobability sampling method with a purposive sampling technique, while the sample criteria set were as follows: (1) Companies that were consistently listed on the Indonesia Stock Exchange (IDX) during 2014-2018. (2) Not a financial companies. (3) The company published financial reports as of December 31 for 2014-2018. (4) Companies that have managerial ownership and institutional ownership during 2014-2018.

The data in this study were collected using the documentation method obtained from the Indonesia Stock Exchange (IDX), Indonesia Capital Market Directory (ICMD), and the company's official website. The data analysis method applied in this research consists of several stages, including (1) descriptive statistics, (2) regression model estimation, (3) classical assumption test, (4) multiple linear regression test, (4) goodness test of fit, and (5) hypothesis testing. The regression equation for this research can be formulated as follows:

$$DER = \alpha + \beta_1 IOS + \beta_2 MOWN + \beta_3 IOWN + \beta_4 ROE + \varepsilon$$

Explanation:

- DER : Funding decisions
- $\alpha$  : Regression intercept coefficient/constant

- $\beta_1-\beta_4$  : Regression slope coefficient
- $\varepsilon$  : Standard error
- IOS : Investment opportunity set
- MOWN: Managerial ownership
- IOWN : Institutional ownership
- ROE : Profitability

**Research Variable**  
**Funding Decisions**

The funding decision is proxied by the debt to equity ratio (DER). DER is the percentage of total debt (both current and long-term debt) to the company's total equity which can be mathematically formulated as follows (Kasmir, 2016):

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

**Investment Opportunity Set**

The investment opportunity set (IOS) is proxied by the ratio of market value to book of assets (MVBA). MVBA is a percentage between assets owned and the company's market value which can be formulated mathematically as follows (Adam & Goyal, 2008):

$$MVBA = \frac{\text{Total Asset} - \text{Total Equity} + (\text{Share Outstanding} \times \text{Closing Price})}{\text{Total Asset}}$$

**Managerial Ownership**

Managerial ownership (MOWN) is measured using the percentage of shares owned by managerial parties (board of directors and commissioners) to the number of shares outstanding. According to Faysal et al. (2020), MOWN can be formulated mathematically as follows:

$$MOWN = \frac{\text{Number of Managerial Shares}}{\text{Number of Shares Outstanding}}$$

**Institutional Ownership**

Institutional ownership (IOWN) is measured using the percentage of shares owned by institutions (both government, banks, insurance companies, investment companies, leasing companies, pension funds, etc.) to the number of shares outstanding. According to Faysal et al. (2020), IOWN can be formulated mathematically as follows:

$$IOWN = \frac{\text{Number of Institutional Shares}}{\text{Number of Shares Outstanding}}$$

**Profitability**

Profitability is proxied by the ratio of return on equity (ROE). ROE is the percentage of

profit after deducting interest and taxes on the company's total equity which is mathematical-ly formulated as follows (Brigham & Houston, 2014):

$$ROE = \frac{\text{Net Profit}}{\text{Total Equity}}$$

**RESULT AND DISCUSSION**

The object of this research is all companies listed on the Indonesian Stock Exchange (IDX) for the 2014-2018 period. At the end of 2019, there were 673 companies registered on the IDX and after screening the data, a sample of 83 companies that met the criteria were obtained. The total observations obtained during the 5 years were 415 units of analysis. The following shows descriptive statistics of the data sample that have been obtained:

shares owned by institutional parties are 69.55% of the total outstanding company shares. The minimum and maximum values of institutional ownership mean that the data on institutional ownership is spread over the range between 35.54 to 98.85.

The average ROE is 7.68, which means that in general, the company is able to generate a profit of 7.60% of its capital. The minimum and maximum ROE values mean that the ROE data is spread over the range between -24.75 to 38.93.

**Regression Model Estimation**

According to Ghozali and Ratmono (2017), a regression that using panel data must go through the stages of determining an estimation model to determine which model is the most appropriate. The results of the model estimation test show the following results:

**Table 1.** Descriptive Statistics

	<b>DER</b>	<b>IOS</b>	<b>MOWN</b>	<b>IOWN</b>	<b>ROE</b>
Mean	1.26	1.21	3.52	69.55	7.68
Median	0.92	1.01	1.60	69.80	7.68
Maximum	9.05	8.32	15.36	98.85	38.93
Minimum	0.07	0.21	0.01	35.54	-24.75
Std. Dev.	1.26	0.75	3.91	14.45	9.53
Observations	415	415	415	415	415

The funding decision proxied by the Debt to Equity Ratio (DER) shows an average value of 1.26 meaning that in general, the company has a DER rate of 1.26%. The minimum and maximum DER values mean that the distribution of DER data is in the range of 0.07 to 9.05.

The IOS average of 1.21 means that in general, the company has an investment opportunity of 1.21%. The minimum and maximum IOS values mean that the distribution of IOS data is in the range of 0.21 to 8.32.

The average managerial ownership is 3.52 which means that in general, the company's shares owned by the management are 3.52% of the total outstanding shares of the company. The minimum and maximum values of managerial ownership mean that the managerial ownership data is spread over the range of 0.01 to 15.36.

The average institutional ownership is 69.55 which means that in general, company

**Table 2.** Model Estimation Test

<b>Chow Test</b>	<b>Hausman Test</b>	<b>Lagrange Multiplier Test</b>
0.00	0.45	483.67 (0.00)

From Table 2 in the Chow test, the probability value F is 0.00 where the value is <math>\alpha (0.05)</math>, which means that the most appropriate model to use is the fixed effect model. Furthermore, from the results of the Hausman test, the chi-square probability value is obtained of 0.4492; where the value >math>\alpha (0.05)</math>, which means that the most appropriate model to use is the random effect model. Based on the results of the Lagrange Multiplier test, the probability value of both is 0.00 where the value is <math>\alpha (0.05)</math>. Therefore, the final result is that the random effect is the most appropriate model to be used to estimate the equation model of this study.

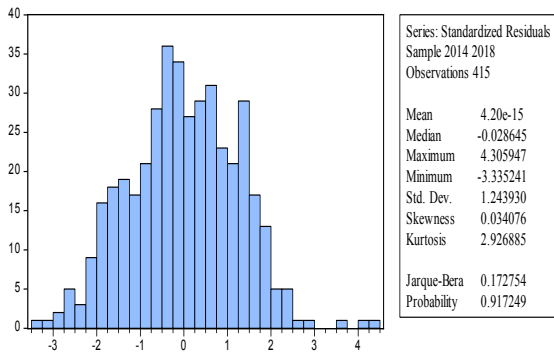


**Classic Assumption Test  
Normality Test**

The normality test is useful to see whether in the regression model confounding variables or residuals are normally distributed or not (Ghozali & Ratmono, 2017). Based on the results of the normality test, the Jarque-Bera probability value is 0.00 because the value is  $< \alpha$  (0.05),  $H_0$  is rejected and  $H_a$  is accepted, which means that the residuals are not normally distributed. Therefore, healing is needed through data transformation with  $\text{Log}_{10}(x)$ .

From Figure 4 it is obtained the Jarque-Bera value of 0.17 with a probability of 0.92 where the value  $> \alpha$  (0.05) then  $H_0$  is accepted and  $H_a$  is rejected, which means that the residuals are normally distributed.

The following is a table of normality test results after the transformation using  $\text{Log}_{10}(x)$ :



**Figure 4.** Normality Test after Transformation

**Heteroscedasticity Test**

The heteroscedasticity test is used to detect whether there is an inequality of variance from

**Table 3.** Heteroscedasticity Test

Variable	t-Statistic	Prob.
Log10 IOS	-0.77	0.44
Log10 MOWN	-1.03	0.31
Log10 IOWN	-0.62	0.5
Log10 ROE	0.21	0.83

From Table 3 it can be seen that all the independent variables have a significant probability value  $> \alpha$  (0.05), which means that none of the independent variables is significant to the residual absolute value or in other words, the regression model is free from heteroscedasticity.

**Multicollinearity Test**

The multicollinearity test is used to detect whether in the regression model there is a strong correlation between the independent variables (Ghozali & Ratmono, 2017). The multicollinearity test results between the independent variables are presented in the correlation matrix table below:

From Table 4 it can be seen that the correlation value between the independent variables ranges from -0.01 to 0.08. Because the value is  $< 0.90$ ; it can be said that there is no high correlation between the independent variables, or in other words, the regression model is free from multicollinearity.

**Autocorrelation Test**

The autocorrelation test is used to detect whether there is a correlation between residuals (confounding errors) in the current period and the previous period (Ghozali, 2018). Based on the results of the regression test, the Durbin-Watson

**Table 4.** Multicollinearity Test

	Log10 IOS	Log10 MOWN	Log10 IOWN	Log10 ROE
Log10 IOS	1.00	0.05	0.01	-0.32
Log10 MOWN	0.05	1.00	-0.01	0.08
Log10 IOWN	0.01	-0.01	1.00	-0.02
Log10 ROE	-0.32	0.08	-0.02	1.00

the residuals of one observation to another (Ghozali, 2018). The results of the heteroscedasticity test using the Glejser test can be shown as follows:

value is 1.95. This value is then compared with the value of the Durbin-Watson table with the number of observations ( $n$ ) = 420 (a value close

to 415) and  $k = 5$  (number of independent variables + intercept).

Based on the Durbin-Watson table, the lower limit value ( $dL$ ) = 1.82 and the upper limit value ( $dU$ ) = 1.86 are obtained. Because the Durbin-Watson ( $d$ ) value of 1.95 is between the values of  $dU = 1.86$  and  $4-dU = 2.14$  or  $dU < d < 4-dU$ ,  $H_0$  which states that there is no autocorrelation either positive or negative is accepted or in words otherwise, the regression model is free of autocorrelation.

### Multiple Linear Regression Analysis

Multiple linear regression is used to test the effect of two or more independent (explanatory) variables on one dependent variable (Ghozali & Ratmono, 2017). Based on the results of the regression test, the regression equation is obtained as follows:

$$DER = 5.59 + 0.77 \text{ IOS} - 0.10 \text{ MOWN} - 1.84 \text{ IOWN} - 0.69 \text{ ROE} + \varepsilon$$

The regression equation above can be described as follows:

The constant value of 5.59 means that if the independent variable is considered constant (0) then the DER value is 5.59.

The coefficient regression value of the investment opportunity set (IOS) is 0.77 which means that if the IOS increases by 1 unit, it will increase the DER value by 0.77 units, assuming the other variables are fixed.

The coefficient regression value of managerial ownership is -0.10, which means that if managerial ownership increases by 1 unit, it will decrease the DER value by 0.10 units, assuming other variables are fixed.

The coefficient regression value of institutional ownership is -1.84 which means that if institutional ownership increases by 1 unit, it will decrease the DER value by 1.84 units, assuming the other variables are fixed.

The coefficient regression value of profitability is -0.69 which means that if the profitabili-

ty increases by 1 unit, it will decrease the DER value by 0.69 units, assuming the other variables are fixed.

### Goodness of Fit Test

#### Coefficient of Determination

The coefficient of determination is useful for measuring the extent of the relationship between the dependent variable and all independent variables (Sanusi, 2014). Based on the results of the regression test, the Adjusted R Squared value was 0.12. This means that funding decisions can be explained by variations in the four independent variables, namely the investment opportunity set, managerial ownership, institutional ownership, and profitability of 11.46%. The remaining 88.54% is explained by other variables outside the research model.

### Statistics F Test

The F statistical test or model test is used to determine the significance level of all independent variables that are regressed in the model together on the dependent variable (Ghozali & Ratmono, 2017). Based on the results of the regression test, it is obtained that the F-statistic value is 14.40 with a probability value  $< \alpha$  (0.05); which is 0.00. This means that all independent variables, namely the investment opportunity set, managerial ownership, institutional ownership, and profitability together have a significant effect on the funding decision variable.

#### Statistics t Test

The t-test or partial regression coefficient test was carried out to test the research hypothesis, which is to find out whether the effect of each independent variable on the dependent variable is significant (Ghozali, 2018). The results of the t statistical test/hypothesis test can be shown as follows:

Based on Table 5, the results of the statistical t test/hypothesis test can be explained as follows:

**Table 5.** Statistics t Test / Hypothesis Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Log10 IOS	0.77	0.25	3.05	0.00
Log10 MOWN	-0.10	0.10	-1.09	0.28
Log10 IOWN	-1.84	0.32	-5.74	0.00
Log10 ROE	-0.69	0.28	-2.50	0.01



### **Effect of Investment Opportunity Set (IOS) on Funding Decisions**

The results of hypothesis testing show that the investment opportunity set (IOS) has a coefficient regression value of 0.77 with a significance probability  $< \alpha$  (0.05); which is equal to 0.00. This means that IOS has a positive and significant effect on DER. The positive direction of the relationship shows that if the IOS increases by 1 unit, it will increase the DER value by 0.77 units, assuming the other variables are constant. Thus, the first hypothesis which states that IOS has a positive effect on funding decisions is accepted. The results of this study indicate that the use of debt will increase along with the size of the investment opportunity / IOS that a company has. This is because the company's need for funds will increase along with the many investment opportunities that will be realized. Referring to the pecking order theory, if internal funding is not sufficient, the company will issue the safest securities first so that companies with high investment opportunities tend to have a larger debt to finance their investment opportunities. This statement is also supported by Fama and French (2002) which states that in a simple pecking order, generally, debt will increase when investment exceeds retained earnings and debt will decrease when an investment is less than retained profit.

The results of this study are in line with the research of Udayani and Suaryana (2013); Ramli and Pabilaya (2015); Hikmah et al. (2020) who found that the investment opportunity set (IOS) has a positive effect on funding decisions. However, the results of this study are not in line with Hikmah et al. (2019) who found that IOS had a negative effect on funding decisions, while Pratama et al. (2020) stated that IOS has no effect on funding decisions.

### **Effect of Managerial Ownership on Funding Decisions**

The results of hypothesis testing show that managerial ownership has a coefficient regression of -0.10 with a significance probability  $> \alpha$  (0.05); which is 0.27. This means that managerial ownership has no effect on DER. Thus, the second hypothesis which states that managerial ownership has a negative effect on funding decisions is rejected.

The insignificant result of the research is assumed to be due to the low level of share ownership by management. Based on the results of descriptive statistics, it is known that from 415 units of analysis, 253 units (60.96%) of managerial ownership data are below the average value

or in other words, the analysis unit is dominated by managerial ownership with a value below average. The low managerial ownership shows that in the company's management mechanism, management policies are also limited by the presence of other shareholders, such as institutional ownership (Nanda & Retnani, 2017). Thus, the influence of management is still under the domination of other shareholder groups (Khafid et al., 2020). Therefore, policies related to funding decisions cannot be decided unilaterally by the manager.

The results of this study are in line with research by Prasetyo and Fidiana (2017); Fayez et al. (2019); Khafid et al. (2020) which states that managerial ownership has no effect on funding decisions. However, the results of this study do not support the agency theory which states that conflicts of interest between principals and agents can be minimized by increasing managerial ownership so that managers who are usually opportunistic tend to be careful, including using debt. The results of this study are also not in line with the research of Thesarani (2017); Rahayu and Yasa (2018); Selviana and Badjra (2018) which states that managerial ownership has a negative and significant effect on funding decisions, as well as research by Sun et al. (2015) which states that managerial ownership has a positive and significant effect on funding decisions.

### **Effect of Institutional Ownership on Funding Decisions**

The results of hypothesis testing indicate that institutional ownership has a coefficient regression of -1.84 with a significance level of  $< \alpha$  (0.05); which is 0.00. This means that institutional ownership has a negative and significant effect on DER. The negative direction of the relationship indicates that if institutional ownership increases by 1 unit, it will decrease the DER value by 1.84 units, assuming the other variables are constant. Thus, the third hypothesis which states that institutional ownership has a negative effect on funding decisions is accepted.

The results of this study indicate that the use of debt will decrease along with the increase in share ownership by the institution. This is because the greater the proportion of institutional ownership is expected to be able to substitute the role of debt as a management control tool so that it will reduce agency costs due to debt. As a monitoring agent, institutional investors have an active role in protecting the investments that have been made so that the welfare of shareholders is more secure. Thus, the greater the amount of debt the

company uses will make institutional investors sell their shares because investors are worried that the company will experience the risk of default in the future, and, furthermore, it could lead to company bankruptcy. Therefore, the company will lose a source of funding, so this makes managers have to consider the use of debt more in funding and look for other, lower-risk alternatives.

The results of this study are in line with the research of Nafisa et al. (2016) and Pratama et al. (2018) who found that institutional ownership has a negative and significant effect on funding decisions. The results of this study also support the pecking order theory which states that the company's funding hierarchy is based on the smallest cost and risk, starting from internal funding followed by external funds. However, the results of this study are not in line with the research of Sun et al. (2015); Arilyn (2016); Prasetyo and Fidiana (2017) who found that institutional ownership has a positive and significant effect on funding decisions. Meanwhile, according to The-sarani (2017); Fayez et al. (2019); and Khafid et al. (2020), institutional ownership has no effect on funding decisions.

#### Effect of Profitability on Funding Decisions

The results of hypothesis testing show that profitability has a coefficient regression of -0.69 with a significance level of  $<\alpha$  (0.05); which is equal to 0.01. This means that profitability has a negative and significant effect on DER. The negative direction of the relationship indicates that if the profitability increases by 1 unit, it will decrease the DER value by 0.69 units, assuming the other variables are constant. Thus, the fourth hypothesis which states that profitability has a negative effect on funding decisions is accepted.

The results of this study indicate that the use of debt will decrease along with the increase in profitability generated by the company. This is because the greater the proportion of profitability means that the potential for retained earnings available as internal funds will increase so that the company's interest in making loans will also decrease. In other words, high profitability indirectly reduces the need for capital from outside parties because every profit earned will increase the company's assets and can be used to pay the company's liabilities, so that dependence on outsiders will be reduced. Therefore, the company does not increase its debt because it feels that the profit generated is able to cover its operational costs, either partially or completely.

The results of this study are in line with the research of Selviana and Badjra (2018); Alyousfi

et al. (2020); and Khafid et al. (2020) who found that profitability has a negative and significant effect on funding decisions. The results of this study also support the assumption of the pecking order theory which states that the company's funding hierarchy is based on the lowest cost starting from internal funds, followed by external funds (Myers, 1984). However, the results of this study are not in line with the research of Tarazi (2013) and Gharaibeh (2015) which found that profitability has a positive and significant effect on funding decisions. Meanwhile, according to Dewi and Wirama (2017); Rahayu and Yasa (2018), profitability has no effect on funding decisions.

#### CONCLUSION AND RECOMMENDATION

Based on the results and discussion above, the following conclusions can be drawn: (1) The investment opportunity set has a positive and significant effect on funding decisions. (2) Institutional ownership and profitability have a significant negative effect on funding decisions. However, (3) managerial ownership has no significant effect on funding decisions.

Researchers have tried to design and develop research in such a way, but there are still limitations in this study such as the low adjusted  $r$  square value, limited proxies used to measure the investment opportunity set (IOS) variable, and the number of companies that do not meet the sample criteria because most companies do not have managerial ownership variables. Therefore, it is suggested for further researchers to develop similar themes by adding variables that influence funding decisions, adding IOS proxies, and using dummy proxies to measure managerial ownership variables so that better research results can be obtained.

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