

## COST OF DEBT DETERMINANT

Lilis Fidiyawati<sup>1</sup>, Elva Nuraina<sup>2</sup>, Nur Wahyuning Sulistyowati<sup>3</sup>

<sup>1,2,3</sup> Universitas PGRI Madiun, Madiun, Indonesia

Corresponding email: [nurwahyu@unipma.ac.id](mailto:nurwahyu@unipma.ac.id)<sup>3</sup>

Received: September, 09, 2022

Revised: October, 19, 2022

Accepted: November, 5, 2022

**Abstract.** The purpose of this study is to analyze the effect of family ownership and institutional ownership on the cost of debt. The total population of 193 manufacturing companies listed on the IDX in 2016 and 2020 with a sample size of 108 through purposive sampling. Data collection uses documentation, namely published and audited reports in the form of annual reports at [www.idx.co.id](http://www.idx.co.id). The research findings of the cost of debt are positively and significantly influenced by family ownership and institutional ownership.

**Keywords.** Family Ownership; Institutional; Cost of Debt.

### INTRODUCTION

The development of the company cannot be separated from the availability of capital. All business activities carried out in a company definitely need capital to fund their operational activities. There are two ways to get capital through external and internal sources. Retained earnings function as a source of internal capital, while loans from creditors or issuance of debt securities for sale to creditors serve as sources of external capital. Creditors who buy debt securities will receive a commission in the form of interest (Nisa and Wulandari, 2021). There are many ways that companies can get loans from creditors and investors for the sake of their business so that it can run as desired. But creditors and investors also consider other factors before handing over a loan or investing in a company. Loans provided by creditors to the entity result in a cost of debt. The interest rate that the lender must take as the total amount of repayments that have been settled together is the cost of debt. Ashkhabi and Agustina (2015) suggest that the company will cover the actual condition of the company if the company is classified as having a high cost of debt. This is done so that there is no decline in the price of the stock. In addition, creditors and investors need disclosures in detailed and clear financial statements to ascertain whether their investments can be profitable if they invest in the company.

Ashkhabi and Agustina (2015) states that we can observe what companies voluntarily disclose about the amount of risk that the company has. Companies with high cost of debt tend to have a high level of risk. Likewise, companies with low cost of debt have a low level of risk. The risk in a company is used as a reference point in making a decision to submit a loan or investment to the company. Creditors and investors expect the risk taken will be in accordance with the profit that will be obtained. From its business activities, manufacturing entities are companies that require a lot of costs. Manufacturing companies are entities that buy raw materials and then turn them into semi-finished products and final products of commercial value, because of this, manufacturing companies need many sources of funds in order to have non-current assets of the company. This shows the need for various sources of finance for the manufacturing business to continue to fund the company's various operational activities, both obtaining loans from outside parties and selling their shares.

Debt cases in manufacturing companies tend to increase every year as in companies with stock code ALKA, the company's liabilities have increased significantly, namely in 2017 from Rp 226.72 billion to Rp 548.24 billion in 2018, ADES companies total liabilities as of December 31 2020 amounted to IDR 258.3 billion, an increase compared to the previous year of IDR 254.4 billion, the company APLI in 2018 the current liabilities of the company and its subsidiaries increased by IDR 127.68 billion, other non-current liabilities also increased by IDR 210.43 million.

In line with the trade off theory which reveals the optimal choice of loan use, after the cost of the company's financial problems equals the tax savings from a higher cost of debt, the company will be in debt. This suggests that debt offers the advantage of tax mitigation. Companies with significant profits will try to reduce their taxes by increasing their debt ratio in the hope that the greater the debt issued will reduce the amount of income tax that must be paid (Sherly and Fitria, 2015).

Umdiana and Sari (2020) argues that the trade off theory is a theory in which entities financing investments with debt can benefit because they benefit from taxes arising from paying the cost of debt so that they can reduce the amount of income tax paid by the company. (Umdiana and Sari, 2020) mentions in the trade off theory there are positive and negative aspects of debt. The positive side of debt interest payments (cost of debt) can reduce corporate income tax payments. The trade off theory predicts the existence of tax benefits from the emergence of loans, so that business activities will choose debt to a certain extent with the aim of optimizing firm value. With a high or maximum company value, the lender is more interested in submitting loans to the company (Mahardika and Aisjah, 2014). Ashkhab and Agustina (2015) argues that stakeholder theory prioritizes organizational accountability over simple economic or financial performance. One way to provide satisfaction to stakeholders is by disclosing the voluntary information they need. Stakeholder theory suggests that a company will opt for voluntary disclosures over stakeholder requests for performance, social, intellectual, and environmental information to meet the stakeholder's real desires.

Husnan and Pamudji (2013) suggests that the theory that explains how company management meets the expectations of stakeholders is stakeholder theory. Shareholders, clients, creditors, suppliers, employees, regulators, and public interest organizations are examples of stakeholders. The expectations of each stakeholder can be different, so entity management is required to be able to manage company resources and policies appropriately with the interests of stakeholders. Support from stakeholders is very important because the company's ability to survive depends on it.

Meiriasari (2017) proves that family ownership has no effect on the cost of debt. The lender gives the amount of the loan fee to the company regardless of the size of the company's family ownership. Different from Swissia and Purba (2018) which results that significantly the cost of debt is affected by family ownership. Family ownership entities are companies with concentrated shares, that is, many shares are owned by certain families so that companies with family ownership have an effect on determining the level of cost of debt in the entity.

Agustami and Yunanda (2014); Ashkhab and Agustina (2015) prove that the cost of debt is negatively affected by institutional ownership. That is, the higher the level of institutional ownership in the entity so that the cost of debt obtained will be less. As well as Swissia and Purba (2018) results that institutional ownership has an effect on the cost of debt. Erniawati et.al (2019) institutional ownership has a significant effect on the cost of debt. On the contrary, Sherly and Fitria (2015) resulting in institutional ownership does not

affect the cost of debt. Sherly et. al (2016) asserts that the cost of debt is not influenced by institutional ownership. In this case there is an inconsistency in previous research, the authors are interested in examining the determinants of the cost of debt.

## METHOD

A quantitative approach is used in this study. A total of 193 manufacturing entities on the IDX in 2016-2020 became the research population with a purposive sampling of 108 company samples. Documentation as a way of collecting research data from published and audited annual reports is downloaded on the official website BEI that is [www.idx.co.id](http://www.idx.co.id).

Table 1. Sampling Criteria

| No.                    | Information                                                                   | Amount |
|------------------------|-------------------------------------------------------------------------------|--------|
| 1                      | Manufacturing companies listed on the Indonesia Stock Exchange.               | 193    |
| 2                      | Companies that do not publish annual financial reports and have been audited. | (40)   |
| 3                      | Companies experiencing delisting.                                             | (3)    |
| 4                      | Companies that do not present financial statements in Rupiah.                 | (42)   |
| 5                      | Companies that have complete data in research variables.                      | (0)    |
| Research Samples       |                                                                               | 108    |
| Observations (108 x 5) |                                                                               | 540    |

Source: Secondary data processed by researchers (2022)

The cost of debt is the dependent variable, namely the interest rate that must be obtained by creditors as a predetermined amount of return. The cost of debt is formulated as follows:

$$= \frac{l + h}{(h + l - )/2}$$

Family ownership is a share ownership structure by families/individuals (more than 20%) whose company is not a publicly owned company, financial institution or state. Family ownership in this study is measured using a dummy variable, namely 0 representing entities that have a proportion of family ownership below 20% and 1 representing entities with a family ownership proportion of 20% or more. Institutional ownership is ownership of shares of institutions or other institutional parties such as financial institutions, banks, governments, investment companies, insurance and other entities. Institutional ownership is measured by the formula:

$$hi = \frac{h}{h + i}$$

## RESULTS AND DISCUSSION

Table 2. Descriptive Statistics

|                         | N   | Descriptive Statistics |         |       |                |
|-------------------------|-----|------------------------|---------|-------|----------------|
|                         |     | Minimum                | Maximum | Mean  | Std. Deviation |
| Family Ownership        | 400 | ,00                    | 1,00    | ,4350 | ,49638         |
| Institutional Ownership | 400 | ,47                    | 1,13    | ,8942 | ,16830         |
| Cost Of Debt            | 400 | ,06                    | ,15     | ,0959 | ,01116         |
| Valid N (listwise)      | 400 |                        |         |       |                |

Source: Results of SPSS data processing version 25 (2022)

Table 2 proves that there are 400 valid data from the annual report of manufacturing entities on the IDX for 2016-2020 in this research. These findings indicate that not all original samples can be processed due to data loss when outliers are performed. Family ownership has an average value of 0.4350; highest number 1.00; the lowest score is 0.00 and the

standard deviation is 0.49638 which proves that institutional ownership has the lowest score of 0.47; the highest number 1.13; the average number is 0.8942 and the standard deviation is 0.16830. Thus it can be concluded that the cost of debt has the lowest value of 0.06; the highest value 0.15; the mean value is 0.0959 and the standard deviation is 0.01116.

The researcher conducted a classical assumption test to ensure that the data were normally distributed and free from multicollinearity, autocorrelation, and heteroscedasticity, so that the data deserved to be tested to the next stage. Researchers also conducted a normality test to ensure that the data were normally distributed. Normal data distribution in this study is stated if the data significance level (Asymp.sig) is greater than 0.05, using the Kolmogorov-Smirnov technique (Ghozali, 2017). This research data is not multicollinearity. to understand the presence or absence of intercorrelation or collinearity between the independent variables of the regression model. The tolerance number and the value of the variance inflation factor (VIF) to ensure whether there is multicollinearity in the change model. The tolerance value calculates the variation of the selected independent variable that is not understood by other independent variables with a low tolerance value equal to a high VIF value, because  $VIF = 1/\text{tolerance}$ , namely high collinearity with a tolerance limit of 0.10 or VIF 10. Certainty whether there is a relationship between confounders in the t period and errors in the t-1 period in the previous linear regression model with the autocorrelation test. Durbin Watson statistical test as an analytical method used by researchers, namely:

- a) No correlation:  $-2 < DW < 2$ .
- b) Positive autocorrelation: The DW number is below -2.
- c) Negative autocorrelation: DW numbers above +2 (Santoso, 2014).

In this study, heteroscedasticity was tested using the Glejser test. The absolute number of the non-standardized residual regression serves as the dependent variable, and the Glejser test to analyze its relationship with the independent variables. There is no heteroscedasticity if the significance number is  $> \text{or} = 0.05$ , and vice versa if the significance number is  $< \text{or} = 0.05$ .

### Hypothesis testing

**Table 3. Multiple Linear Regression Test Results**

| Model                   | Coefficients <sup>a</sup>   |            |                           |        |      |
|-------------------------|-----------------------------|------------|---------------------------|--------|------|
|                         | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|                         | B                           | Std. Error | Beta                      |        |      |
| (Constant)              | .075                        | .003       |                           | 28,057 | .000 |
| 1 Family Ownership      | .007                        | .001       | .302                      | 6,624  | .000 |
| Institutional Ownership | .021                        | .003       | .310                      | 6,791  | .000 |

a. Dependent Variable: COST OF DEBT

Source: Results of SPSS data processing version 25 (2022)

The effect of family ownership and institutional ownership on the cost of debt is determined through the equation of multiple linear regression analysis as follows:

$$Y = a + b_1X_1 + b_2X_2 + \epsilon$$

Information:

Y = Cost of Debt

a = Constant

b<sub>1</sub>, b<sub>2</sub> = Regression Coefficients X<sub>1</sub> and X<sub>2</sub>

X<sub>1</sub> = Family Ownership

X<sub>2</sub> = Institutional Ownership

$\epsilon$  = Confounding variable

The equation obtained is:

$$Y = a + b_1X_1 + b_2X_2 + \epsilon = 0,075 + 0,07X_1 + 0,021X_2 + \epsilon \dots\dots\dots \text{per 1}$$

- a) The constant 0.075 states that the average cost of debt is 0.075 if the independent variable is assumed to be constant.
- b) The regression coefficient of family ownership is 0.07. The cost of debt increases by 0.07 or 7% for every 1% increase in the ratio of family ownership.
- c) The regression coefficient for institutional ownership is 0.021, each percentage point increase in the institutional ownership ratio increases the cost of debt by 0.021 points or 2.1%.

To determine the partial effect of family ownership and institutional ownership on the cost of debt, it can be measured using the t test with a significance of 0.05. If the test results show  $< 0.05$ , it means that the independent variable partially affects the dependent variable. The criteria used in this test are:

- a) If  $-t \text{ count} < -t \text{ table}$  or  $t \text{ count} > t \text{ table}$ , so there is an effect.
- b) If  $-t \text{ count} > -t \text{ table}$  or  $t \text{ count} < t \text{ table}$ , so there is no effect.

Table 3 above proves that:

- a) The t-count of family ownership is 6,624 which has a significant number of 0.000. The t-value of the family ownership table is obtained by looking at the distribution point table of the t-test using the formula  $df = n - k$  or  $df = 400 - 3 = 397$ , so the magnitude of the t table is 1.965. It is concluded that the t-count is greater than the t-table ( $6.624 > 1.965$ ) with a significance value of  $< 0.05$  ( $0.000 < 0.05$ ). That is, family ownership significantly affects the cost of debt, so hypothesis 1 (H1) is accepted.
- b) The t-count of institutional ownership is 6.791, which has a significance value of 0.000. The t-table of institutional ownership is obtained by looking at the distribution point table of the t-test using the formula  $df = n - k$  or  $df = 400 - 3 = 397$ , so the magnitude of the t table number is 1.965. It was concluded that the t count  $> t$  table ( $6.791 > 1.965$ ) with a significance value of less than 0.05 ( $0.000 < 0.05$ ). This means that institutional ownership significantly affects the cost of debt, so hypothesis 2 (H2) is accepted.

#### 1. Family ownership affects the cost of debt

The results of the hypothesis test output can be concluded that variable X has an influence on variable Y, as evidenced by the t test, namely the t count  $> t$  table ( $6.624 > 1.965$ ) with a significance number  $< 0.05$  ( $0.000 < 0.05$ ). From the test results, it is concluded that hypothesis 1 (H1) is accepted. In accordance with the Swisia and Purba (2018) which proves that family ownership significantly affects the cost of debt. A company that has family ownership is a company that is majority owned by family members or its shareholders belong to a particular family that gives the power to control the company's debt costs. A high level of share ownership means the company's level of control will be even greater. This control, causes shareholders to increase their salaries to increase personal profits. Anticipation made by creditors to overcome the risks arising from this is by increasing the borrowing costs borne by the entity. When the family is the largest shareholder, it will take advantage of the control it has by taking profits to the detriment of creditors. To overcome this problem, creditors determine higher borrow costs.

Different Meiriasari (2017) which proves that family ownership does not affect the cost of debt that creditors do not mind the size of family ownership in the company. Or it can be concluded that the existence of a risk is not influenced by the level of family ownership. In

this research, family ownership is seen as a more effective share ownership structure to protect its own interests. Then the family will take more profit from its business activities with the aim of increasing personal profits. Creditors who are related to the family that manages the entity will also assume that the loan or investment they make will provide maximum feedback, so that the family can easily get a loan from the creditor. Based on the description above, family ownership can increase the cost of debt. This is in line with the trade off theory, where entities with family ownership prefer to increase debt to fund the company's operational activities so that it will reduce the amount of income tax that will be paid by the company (Wirawan and Sukartha, 2018). In line with Maryam and Dewanti (2022). Family-owned companies encourage aggressive action to reduce corporate income taxes. When there are tax savings implications on corporate profits or profits earned that can be distributed to investors, entities with significant family investors are certainly more interested in using debt funding which ultimately maximizes dividend distribution than internal funding by issuing shares.

## 2. Institutional ownership affects the cost of debt

The results of the hypothesis test output can be concluded that variable X affects variable Y, it is proven that the t-test count t-count is greater than t-table ( $6.791 > 1.965$ ) with a significance number of  $0.000 < 0.05$ . From this test, it is concluded that institutional ownership significantly affects the cost of debt, so hypothesis 2 (H2) is accepted. In line with Swissia and Purba (2018) and Erniawati dkk (2019) prove that institutional ownership affects the cost of debt. Investors of institutional ownership are considered by creditors to be more capable of paying the obligations imposed, so that institutional investors find it easier to get debt. Therefore, companies with institutional ownership tend to request loans from creditors in large amounts. With a large debt level, it will increase the cost of debt. However, not in line with Agustami and Yunanda (2014) dan Ashkhabi and Agustina (2015) which reveals that institutional ownership negatively affects the cost of debt, meaning that the cost of debt is reduced proportionally to the amount of institutional ownership in the entity. Likewise with, Sherly and Fitria (2015) and Sherly dkk (2016) revealed that institutional ownership has no effect on borrowing costs, which means that institutional ownership cannot control the cost of debt in the entity. In accordance with the trade off theory which reveals that companies choose to invest using debt because it can reduce the taxes paid by the entity. Entities with high profitability will maximize firm value. A good company value encourages higher stock movements in the market, institutional ownership tends to prioritize short-term financial performance and capital gains from the incident. In addition, long-term investors will get a higher stock return. Institutional investors tend to avoid issuing shares and choose debt funding because it can cause under value. Institutional owners tend to avoid taxes so that it is in accordance with the trade off theory which explains tax saving (Hanna and Haryanto, 2016).

## CONCLUSION

The conclusions of the research that have been described in the discussion are: (1) The cost of debt is positively and significantly influenced by family ownership. The family will take more profit from its business activities aimed at increasing personal profits. Entities with family ownership tend to choose to increase debt to finance operational activities so that it will minimize the amount of income tax paid by the entity; (2) The cost of debt is positively and significantly influenced by family ownership. Institutional investors are considered creditors to be more capable of paying the obligations imposed, so that

institutional investors find it easier to get debt. Companies with institutional investors choose debt investment because it can reduce the taxes paid by the company. Institutional investors tend to avoid issuing shares because it can lead to under value.

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