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## **ARTÍCULO**

## Relationship of Company's Characteristics and Markets Power on Leverage In Indonesian Manufacturing Companies

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### Jel Codes:

L60 Keywords: Characteristic of Company, Firm Size, Tangibility, Profitability, Growth, Market Power, Leverage Abstract: The primary aim of the study is to identify the effect of power of the market on the leverage. In addition, this study further takes into account different firm characteristics in the analysis. In this regard, the focus of the study is on Indonesian manufacturing companies. Therefore, secondary quantitative data were obtained ranging from 2014 to 2017 of 50 Indonesian companies operating in the manufacturing sector. This makes a total of 198 observations. In order to analyze the model and attain the research aim, pooled OLS regression has been used due to the absence of panel effects. The results revealed that market power and leverage are positively related to each other and this implies that increment in market power would lead to an improvement in the gearing position of the companies operating in Indonesian manufacturing sector. Therefore, it has been recommended to consider the measures that can result in enhanced market power.

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## 1. Introduction

Kharismawati (2014) revealed that the Indonesian manufacturing industry in 2014 was developing. The growth of the manufacturing industry had an impact on the record of foreign debt (FD). The central bank of Indonesia, Bank Indonesia (BI) noted that foreign debt (FD) in this sector rose 4.26% to the US \$ 33.35 billion in July 2014. Previously in June 2014, FD in the manufacturing sector was the US \$ 31.99 billion. The government of the Ministry of Finance also reviewed the Debt Equity Ratio (DER), which is based on sectors. The manufacturing sector will be a sector that has a low debt ratio because it is deemed to not require a high debt ratio, like the banking sector. Bank Central Asia (BCA) economist, David Sumual, thinks private foreign debt must be controlled. Especially for manufacturing, an aspect that needs to be considered is the tenor of debt taking, whether long term or short term. If the manufacturing sector owes long-term projects, but the majority of debt taken is short-term debt, it is certainly risky.

Companies with sources of funds from creditors in the form of loans or debt must try to control this debt. According to Elfira (2014), the magnitude of the debt management ratio (leverage) shows how much the company uses debt to fund investments made for company operations. Funding using debt to a certain extent in a normal economic situation will positively impact the company's cash flow, including tax savings and leaving more operating profit available to investors. Therefore, in normal economic situations, debt can be used to increase the rate of return on equity. The deteriorating economic conditions also resulted in high-interest rates and the company's inability to pay debts that were due. This condition leads many companies to worsened, especially in the manufacturing sector. Therefore, debt-related financing decisions are essential for both management and investors (Putra et al., 2020; Konstantinis et al., 2018; Deshko, 2018; Bermejo, 2019; Aydin et al., 2019; Aksu & Reyhanlioglu Keceoglu, 2019).

Leverage is a ratio that measures how far the company uses debt. In order to increase the level of income of the company, a company must have the ability to control its leverage and that causes assets to be utilized in an efficient manner (Kholis, Rambe & Muda., 2020). Leverage shows how much company's assets are financed through debts. Companies with a higher level of debt than equity are highly leveraged (Hussan, 2016).

The theory of balance (tradeoff theory) balances benefits and tradeoffs arising from the use of debt. If the benefits are greater, the debt portion can be increased. Based on this theory, companies try to maintain a targeted capital structure to maximize market value. The tradeoff theory states that a company maximizes the value of a company through optimal debt ratio and cost and benefit analysis of debt (Hackbarth, Hennessy & Leland, 2007). Companies use the benefit of debt by minimizing the payments of interests and it further helps to use debt in an efficient way (Myers, 2001).

The theory further states that trade-off costs, agency costs and financial hardship costs result in the capital structure of a company and it further balances of the use of debt. Lasher (2003) reveals that there are variations in the composition of leverage and equity in companies due to company characteristics and economic conditions. The company's characteristic itself are the characteristics or specifications of a company that differentiates one company from another. There are differences in company characteristics that cause differences in the composition of their capital structure, and decisions to fulfil company sources of funds (Ozkan, 2001) argued that the company's characteristics could relate to the decision to fulfil the source of funds used by the company and

the amount of leverage in the company. In this study, several company characteristics have a relationship to leverage, namely, firm size, growth, tangibility, and profitability.

A company's size can be measured through firm's size and total assets represent the size of the company (Arifuddin, Hanafi & Usman, 2017; Sadalia, Simanjuntak & Butar-Butar, 2017; Iswajuni, Manasikana & Soetedjo, 2018). If the larger the company's size, the higher the tendency for the company to use external sources of funds. This is because larger corporate funding requires a larger source of funds to meet company needs. Growth is the progress of companies which growth indicators use an increase in sales each year. Based on Nagesha and Renuk (2016), the results shown in their study of growth prospects have a positive relationship with leverage. Companies in India that can control their share price in the market can get more debt financing for their company's future growth.

Another variable in company characteristics is tangibility. Tangible assets are fixed assets owned by the company and can be used as collateral for creditors in making loans. Organizations with no assets are used as collateral by the company in making loans, then the company will tend to use large amounts of debt. In order to finance their investments companies, use their current assets to fund their debts and reduce the level of leverage.

The ability to generate earnings before interest and taxes with existing capabilities and resources such as sales activities, capital cash, number of employees, number of branches and total assets owned by the company (Basuki & Kusumawardhani, 2012). There is a relationship between leverage and profitability and the more profitable a company is, the more debt suppliers provide loans to profitable companies (Jahanzeb, Bajuri & Ghori, 2015; Maluleke et al., 2019; David & Grobler, 2019; Basilgan & Akman, 2019; Isabirye & Moloi, 2019; Collet et al., 2019; Hospital & Ta., 2019; Deshko, 2018; Bermejo, 2019; Aydin et al., 2019; Aksu, & Reyhanlioglu, 2019; Maluleke, et al., 2019; David Grobler, 2019; Basilgan & Akman, 2019; Isabirye & Moloi, 2019; Aksoy, 2019; Collet et al., 2019; ).

Another thing that connects the amount of debt (leverage) used by the company is market power. Market power is the company's ability to link the price of goods or services in the market. Research by Jahanzeb, Bajuri and Ghori (2015) described that market power as having a positive relationship with leverage. Companies with a lot of debt will also increase their maximum production capacity to pay off the debt on time. The existence of more production capacity can be used by the company as an aggressive market strategy because the company has a relationship in the market in relation to prices, also known as market power. By using Hirschman's analysis, companies with analysis results are getting closer to number 1, so the company can be said to have high market power (Roberts, 2014).

Based on the mentioned aspects and to extend the analysis of the previously conducted researches, the aim of the study is to determine the empirical evidence about company characteristics and market power related to leverage in Indonesia's manufacturing companies. This study can be taken into consideration for companies listed on the IDX, especially in the manufacturing sector, to determine policies related to optimal and efficient use of debt for companies. The study will analyze 50 companies along with 198 observations of the companies that are listed on the Stock exchange of Indonesia from 2014-2017. There is a positive relationship between market power and leverage and it will be analyzed in the study through results and further indicate a positive relationship in

firm size and growth variable. At the same time, the variables of size and profitability have a negative relationship with leverage. In comparison, tangibility has no relationship with leverage.

The study will further have the following structure In which section 2 is about the research development and research hypotheses and section 3 is about explaining the variables with samples and what research model has been used. Section 4 involves the discussion of empirical studies along with hypotheses and results and section 5 discusses the summary of the study and recommends approaches for further studies.

### 2. Literature Review

#### 2.1. Trade-off Theory

The theory is used to maximize the value of the firm and it is done through analyzing by predicting the optimal ratio of debt and cost and benefits of debt (Myers, 2001). When the benefits of issuing debt conflict with the present value of the costs by issuing more debts, it causes the optimal point to be hit. This is used as a reference theory in research because the theory refers to making debt financing decisions to increase firm value. The trade-off theory further states that the capital structure of a company is based on savings from taxes and the decrease in the cost of debts and firms that function on income generated from taxes have a higher debt ratio (Abel, 2018). It is further used to determine the value of a firm and its is calculated as:

 $Value\ of\ firm = Value\ of\ shareholders\ wealth + Tax\ shield$ - cost of debts

According to Oktavina et al., (2018) each company has different capital structure and it has a mix of debts, equity and stock and firms raise the capital structure through proper financing and keep will the actual structure till the company goes through uncertainty to support finances through the crisis. The firms should further maximize the capital structure by using the shareholder wealth and it should be equal to the company's investments and according to Simatupang (2019), this theory is further related to the call-agency theory. It states that stockholder's wealth is essential for overall economic development.

#### 2.2. **Pecking Order Theory**

According to the pecking theory, companies tend to opt for internal funding rather than external funding. The use of internal funds reduces leverage and is different from extremal funds. This theory is reinforced by research conducted by Myers and Majluf (1984), which states that in its simplest form, the Pecking Order Model explains that when the company's internal cash flow is not sufficient to fund real investment and dividends, the company will issue debt. Shares will never be issued unless the company's financial distress costs are high. In addition, Myers and Majluf (1984) found that there was a negative assessment from shareholders due to the issuance of shares or reduced leverage. This theory reveals that companies tend to choose internal funding rather than external funding. Following this theory, the use of leverage is certainly low because companies prefer to use internal funding, such as retained earnings in a larger capacity, than external funding such as leverage.

According to Oktavina (2018), pecking theory states that companies use internal source to finance their projects as external financing such as equity financing is costly and should be used as the last option to obtain finance. Managers have to use this theory as they are aware of the financial performance of the company and they have an outlook on investors and creditors and external financing causes returns to paid and this increases the risk of cashflow problems (Wiagustini et al., 2017). The theory further states that external financing causes the company to devalue the prices of stock and stocks are then overvalued in amount therefore, a negative image of the company is created. This theory is important in general as it helps to evaluate the performance of the company to the public and if the company finances itself through internally, it indicates that it has good financial health and if the financial health is poor, the company finances itself through debt (Ibhagui et al., 2018). The company should finance itself through maximizing profits so that the last resort left would be borrowing from stakeholders and internal financing is the cheapest form of obtaining money as the company would not have to pay returns or taxes and this saves money for cashflow.

#### 2.3. The Relationship between Firm Size and Leverage

The size of the company relates to obtaining capital from external parties to carry out investment opportunities. This is because the firm size is closely associated with accessing the capital market (Abdullah et al., 2019). Jahanzeb, Bajuri and Ghori (2015) stated that size firming has a negative relationship with leverage. This is because large companies in Pakistan issue shares if the company's market conditions tend to be good. The research used by Nagesha and Renuk (2016) reveals that relationship is negative as shown by firm size to leverage. The results of research on ten non-financial companies in India explained that large companies with extra physical assets are anticipated to have lower debt liabilities than small companies.

The leverage of a company is impacted by firm size and larger firms tend to have a great influence on shareholders (Alter et al., 2020). This factor is important as firms contribute to the economy of the country and it plays an important role in setting up rules within an organization. According to Hirdinis (2019), financial leverage is used to utilize fixed costs and it must be utilized as firms don't want to obtain a long-term debt. Financial leverage occurs when firms borrow resources from banks, stakeholders or third parties and it leads to the cost of the firm being high and it further reduces profits. Financial leverage tends to increase interest on the debt and causes the operating income to change after taxes have been incorporated. The firm may face a loss if the debts are high as interest is higher on them and this further has a negative impact on the firm size. As observed by Dinlersoz (2018), firm size has a positive relationship with leverage and the bankruptcy costs decrease when firms value increases. Based on the theoretical basis used, the following hypothesis can be built as follow:

H1 Firm size and leverage have a relationship between them

## The Relationship between Tangibility and Leverage

The assets in the company provide the future economic benefits expected by the company. Asset structure relates to the company's assets, which can be used as collateral and tends to use larger debt. Companies with more assets have a relationship to debt policy. According to Nagesha and Renuk (2016), the relationship between leverage and tangibility ratio shows a significant negative relationship with leverage, because large companies in India with extra physical assets tend to have fewer debt obligations. Tangibility can also be referred to as an extent where a firm is financed through fixed assets and the ratio of fixed assets to total assets is used as a proxy measure to measure the tangibility of the firm (Herwadkar, 2017). Firms usually have low leverage and it is difficult for firms to use these assets as they are not able to generate profits and used to increase the value of the firm. However, firms may use them externally for selling to generate cash flow or working capital to keep the operations running.

This option is considered before contacting stakeholders as this method is cheap and reduces the leverage of the company (Dinlersoz, et al, 2018). Moreover, firms that have a high level of fixed assets have the opportunity to avail loans and have an increased borrowing capacity. Therefore, it can be said the relationship is positive between asset tangibility and leverage. Based on the theoretical basis used, this is the following hypothesis:

H2 Leverage and Tangibility have a positive relationship

## 2.5. The Relationship between Growth and Leverage

According to Bae et al., (2017), sales deviate each year and this indicates that the company is growing (or declining) and firms that have a high level of sales are more likely to undertake external funding as it would increase debt and cause growth to be slow. The high sales further denote that increased sales can cover the cost of interest and debts. Leverage can cause uncertainties within the company and thus have an effect on the growth of the company (Bazillier et al., 2017). If a company is highly leveraged it can cause the growth to be slow or there can be no growth at all. Most investors tend to look at the growth of the company before investing and if the company has a high level of debts, investors are less likely to approach a company. This indicates that there is a positive relationship between growth and leverage. According to the pecking order theory, there is a relationship between the volatility of earnings and debt ratio.

According to Nagesha and Renuk (2016), the results shown in their study of growth prospects have a positive relationship with leverage. Companies in India that can control their share price in the market can get more debt financing for the future growth of their company. Based on the theoretical basis used, the following hypothesis is as follows:

H3 Relationship between leverage and growth is positive.

# 2.6. The Relationship between Profitability and Leverage

Leverage of the company mainly consists of total debt to assets and it can be used to the short and long-term measurement for a company (Ahmed et al., 2018). The profitability of a company is measured by return on assets and it further indicates how profitable its assets are and how a company uses assets with efficiency to generate profits (Masdupi et al., 2018). Moreover, profitability can be used to identify the growth of a firm and it is further related to the capital structure of the firm. Income increases when a firm efficiently uses its assets and resources are able to meet the expenses leaving with a positive operating income. Positive operating income means that the firm has been successful in reducing its debts and is aiming towards growth.

The ability to generate profitability is through retaining earnings before interest and taxes with existing capabilities and resources such as sales activities, capital cash, number of employees, number of branches and total assets owned by the company. Companies that have high profitability levels have financed through internal funds as compared to companies that have low profitability (Lisa, 2016). High return companies will invest more with low debt levels. According to Nagesha and Renuk (2016), the results obtained in their research show that profitability has a positive relationship with leverage. Companies in India that generate profits and pay dividends to their shareholders tend to have large debts in their capital structure. The hypothesis that can be built in this study is as follows:

#### H4 There is a relationship between profitability and leverage

# 2.7. The Relationship between Market Power and Leverage

Market power further implies a company's control of prices within a market and it means the company is operating under a monopoly and its capital structure is strong as compared to other companies (Bamberger et al., 2017). Monopoly takes place when one market is dominated by a company that has no competition and therefore, the profitability of the company increases. Moreover, it reduces the debts of the company and causes investors to be interested (Morlacco, 2019). However, there are some companies that have no control over the prices within the market that manufacture the same product. This can cause the company's cost to increase and if the company with power has patented its products, can cause the competitor to change its strategies and the product (Çolak et al., 2018). This causes the companies to cost to rise along with charges and it further distorts the image of the company. Moreover, the company may need to borrow a loan in order to finance its operations.

Market power is the company's ability to link the prices of goods and services in the market. According to Jahanzeb, Bajuri, and Ghori (2015), market power has a positive relationship to leverage. Market power is owned by companies, namely being able to manipulate their share price in the market, and being able to control market production tends to increase debt to optimize the value of their company. The following hypothesis is as follow:

**H5** There is a relationship between market power and leverage

## 3. Research Methodology

#### 3.1. Samples and Data Sources

The sample used in this study is a manufacturing company listed on the Indonesia Stock Exchange (BEI) for the 2014-2017 period. The data listed in the Indonesia Stock Exchange recorded a total of 524 observations from manufacturing companies listed as of December 31, 2017. Based on the predetermined sample selection criteria, a sample of 198 companies was obtained.

Table 1. Research Sample Criteria

| Research Sample Criteria   | 2014 | 2015 | 2016 | 2017 | Total |
|----------------------------|------|------|------|------|-------|
| Total                      | 131  | 131  | 131  | 131  | 524   |
| IPO year above 2013        | (29) | (25) | (35) | (33) | (122) |
| Financial statements ended | (5)  | (7)  | (7)  | (7)  | (26)  |
| December 31                |      |      |      |      |       |
| Foreign currency           | (19) | (18) | (22) | (18) | (77)  |
| Data completeness          | (27) | (22) | (19) | (19) | (87)  |
| Total                      | 51   | 59   | 48   | 54   | 198   |

## 3.2. Dependent Variable

### 3.2.1. Leverage

Leverage is the use of funds that carries fixed costs and expenses if the company uses debt. Regarding o Jahanzeb, Bajuri and Ghori (2015), the dependent variable leverage is measured by the ratio of the calculation of total liabilities and total companies.

$$LEV_{i,t} = \frac{Total\ liabillites}{Total\ Asset}$$

## 3.3. Independent Variables

#### 3.3.1. Firm Size

Firm size is the size of the company, as seen from the amount of equity value, company value, or the results of the total asset value of a company. Firm size is measured by the natural logarithm (ln) of total sales (Nasih et al., 2019; Harymawan et al., 2019; Irawati et al., 2019; Nohong et al., 2019)

$$SIZE_{i,t} = In (SIZE)_{i,t}$$

## 3.3.2. Tangibility

Tangible assets are defined as assets that are owned by a company and have a form. Researchers use the ratio between total fixed assets and total assets as a proxy for the company's asset structure.

TANGi,t = 
$$\frac{Total\ Fixed\ Asset}{Total\ Aset}$$

#### 3.3.3. Growth

The company's growth can be seen from the increase in sales each year. The percentage change in sales from the growth variable is to determine the company's growth.

GROWTH<sub>i,t</sub> = 
$$\frac{SALESi,t - SALESi,t-1}{SALESi,t-1} \times 100$$

## 3.3.4. Profitability

Profitability is described by the company's ability to generate earnings before interest and taxes with existing capabilities and resources such as sales activities, capital cash, number of employees, number of branches and total assets owned by the company. (Haykal et al., 2020). Researchers use the ratio between earnings before interest and taxes (EBIT) and total assets as a proxy for company profitability.

$$PROFITABILITY_{i,t} = \frac{EBIT}{Total \ Aset}$$

### 3.3.5. Market Power

Corresponding to the literature of Jahanzeb, Bajuri and Ghori (2015), market power is the ability of the company to strengthen or weaken the market prices. To find out how much the company's relationship with market power, Robert (2014) revealed that the Hirschman Index is used to measure market power, which increases when sales in the market increase and decrease along with the increasing number of competing companies. This can be obtained by using the ratio of the company's own sales and sales in the industry. If the result is closer to number 1, then the company can be said to have high market power.

Hirschman = 1 - 
$$\sum_{i=1}^{n} \left( \frac{qj}{Q} \times 100 \right)^{2}$$

## 4. Methodology

This study employs the software of SPSS 21. Hypothesis testing is carried out in this study using multiple linear analysis, to examine the relationship of two or more independent variables to one dependent variable. This analysis will be useful for showing a positive or negative direction between the independent variable and the dependent variable when the independent variable changes each period. Commonly used data are interval or ratio scale. The regression model used to test the hypothesis in this study is as follows:

$$Leverage_{it} = \alpha + \beta_1 Size_{it} + \beta_2 Tangibility_{it} + \beta_3 FirmGrowth_{it} + \beta_4 Profit_{it} + \beta_5 MarPower_{it} + \epsilon_{it}$$

In the above model, the dependent variable is leverage whereas, the independent variables are firm size, tangibility, firm growth, profitability and market power. However,  $\alpha$  is the intercept, Bs are the parameters or coefficients of the independent variables used in the model, 'i' indicates crosssection (firm) and 't' represents the time period.

The researcher initially tested the data for unit root, however, it was found that the data was stationary. This indicated that parametric tests can be applied. Since the data was based on panel characteristics comprising of companies and time period, therefore, the presence of panel effects was tested using the Breusch-Pagan test. However, none of the panel effects was found and this indicated that pooled OLS can be utilized for the analysis. Hence, the researcher of the study utilized pooled regression.

### 5. Result And Discussion

#### 5.1. **Descriptive statistics**

Table 2. Descriptive Statistics Result

|        | N   | Minimum | Maximum | Mean    | Std. Deviation |
|--------|-----|---------|---------|---------|----------------|
| MP     | 198 | 0.7188  | 0.8849  | 0.4769  | 0.1722         |
| SIZE   | 198 | 25.6199 | 32.1077 | 28.4913 | 1.3972         |
| TANG   | 198 | 0.1146  | 0.9255  | 0.4019  | 0.1719         |
| GROWTH | 198 | -0.3499 | 0.5002  | 0.0641  | 0.1403         |
| PROF   | 198 | -0.1743 | 0.6259  | 0.0958  | 0.1022         |
| LEV    | 198 | 0.0003  | 0.8849  | 0.4769  | 0.1722         |

Source: Results of SPSS Data Processing

Table 2 shows the lowest average of all variables is 0.0641 in the growth variable (company growth), while the highest average is 32.1077 in the size variable. The lowest standard deviation of the entire sample is 0.1022 in the PROF (Profitability) variable, while the highest standard deviation is 1.3972 in the size (firm size) variable. The market power indicates the standard deviation of 0.1722, and the average is 0.4769, while the maximum value is 0.8849, and the minimum value is 0.7188.

Leverage (LEV) has an average data of 0.4769 and a standard deviation of 0.1722. In this study, the highest leverage variable data was 0.8849, while the lowest leverage variable was 0.0003. Firm size (SIZE), based on table 2, points out the average firm size in the sample is 28.4913, with a standard deviation of 1.3972. In this study, the largest firm size was 32.1077, while the smallest was 25.6199. Tangibility (TANG) has an average of 0.4019 points or 40.19%. This value implies that the average fixed assets compared to the company's total assets is 40.19%. Furthermore, the standard deviation is 0.1719, and the value of the largest tangibility variable was 0.9255, while the smallest value was 0.1146.

According to table 2, Growth (GROWTH) has a standard deviation of 0.1403, and the average is 0.0641. The growth variable in this study shows the maximum value of 0.5002, while the minimum value obtained is -0.3499. Profitability (PROF) based on table 2 has a standard deviation of 0.1022 and an average of 0.0958. In this study, the maximum value of the profitability variable is 0.6259, while the minimum value is -0.1743. This negative value shows that some companies or samples experienced losses each year during the observation period (2014-2017).

#### 5.2. **Classic Assumption Test**

In order to obtain a good linear regression model, a classic assumption test has been carried out to make sure results are not biased. The study further uses several classical models that include autocorrelation test, multicollinearity tests, normality tests and heteroscedasticity test.

The results that have been identified through the classic assumption test determine that the data distributed is normal and it shows that all variables with the value of >0.1 and VIF>10 are normal. Moreover, it can be concluded that the variables are free from multicollinearity. The results of heteroscedasticity indicate that the regression model used if free from heteroscedasticity the regression model is free from autocorrelation according to the autocorrelation test.

### 5.2.1. Hypothesis Testing Results

Table 3. Regression Analysis Results

| . as to ov resp. cos |             |              |          |                      |       |           |                 |
|----------------------|-------------|--------------|----------|----------------------|-------|-----------|-----------------|
|                      |             | Unstand      | dardized | dStandardized        | t     |           |                 |
| Model                |             | Coefficients |          | Coefficients         |       | C:~       | Annotation      |
|                      |             |              | Std.     |                      | _L    | Sig.      | Annotation      |
|                      |             | В            | Error    | Beta                 |       |           |                 |
| •                    | 1 (Constant | )0.634       | 0.634    |                      | 1.00  | 10.318    | 3               |
|                      | MP          | 0.617        | 0.312    | 0.211                | 1.97  | 60.050    | OH₁             |
|                      |             |              |          |                      |       |           | accepted        |
|                      | SIZE        | -0.026       | 0.013    | -0.207               | -     | 0.050     | OH <sub>2</sub> |
|                      |             |              |          |                      | 1.972 | 2         | accepted        |
|                      | TANG        | -0.038       | 0.065    | -0.038               | -     | 0.563     | 3H₃             |
|                      | <u> </u>    |              |          |                      | 0.579 | 9         | rejected        |
|                      | GROWTH      | 0.171        | 0.080    | 0.139                | 2.13  | 360.034H₄ |                 |
|                      | <u> </u>    |              |          |                      |       |           | accepted        |
|                      | PROF        | -0.241       | 0.115    | 0.115 -0.143 - 0.038 |       | 3H₅       |                 |
|                      |             |              |          |                      | 2.08  | 7         | accepted        |

- Regarding the results of table 3, market power is positively related to leverage. This means that if the market power variable increases by one unit, the leverage variable will also increase by 0.211, assuming other variables are constant.
- 2. The firm size variable (SIZE) has a negative relationship with leverage. This means that if the size of the company (SIZE) increases by one unit, the leverage variable will be inversely proportional to -0.207 and vice versa, assuming that other variables are constant.
- 3. The tangible asset (*TANG*) variable has no relationship with leverage. It implies that if the number of tangible assets in the company increases by one unit, the leverage variable will decrease by -0.038 and vice versa, assuming other variables are constant.
- 4. The company growth variable (GROWTH) has a positive relationship with leverage. Thus, if the company growth variable increases by one unit, the leverage will increase by 0.139 and vice versa, assuming other variables are constant.
- 5. The profitability variable (*PROF*) has a negative relationship with leverage. This indicates if the profitability variable increases by one unit, the quality of the leverage decrease by -0.143 and vice versa, assuming other variables are constant.

# **5.3.** The Relationship between Market Power and Leverage

Based on the results of this study, it is known that market power in the manufacturing companies studied is positively related to the leverage variable as measured by using the Dechow and Dichev formula. This explains that the greater the value of the market power possessed by a manufacturing company in controlling the market, the greater the funding requirement that must be met by the company to achieve higher production

needs. To meet this rising funding requirement, companies demand outside funding sources, one of which is a source of funding in the form of debt. This explains that the more a company has high market power, the more it monopolizes the market, and the company tends to increase its debt usage.

According to the research of Jahanzeb, Bajuri and Ghori (2015), which was conducted on 176 non-financial companies in Pakistan, it shows the same results, that the market power variable is positively related to the leverage variable. Likewise, in the research by Nagesha and Renuk (2016), the market power possessed in a sample of 10 non-financial companies in India shows a positive relationship to the level of leverage.

## 5.4. The Relationship between Firm Size and Leverage

Based on the results of this study, the firm size variable (SIZE) is negatively related to the leverage variable. This shows that the bigger the company, the more likely it is to minimize the use of debt within the company. Because large companies consider that the higher the level of debt they have, the worse the company's image. Large companies tend to have a well corporate image. Because when they are in the capital market to obtain funding sources other than debt, such as sources of funds from high investor investments, it is necessary to have a good corporate image. Therefore, the company does not need a source of debt funds because of the source of capital funds from purchasing investors' shares already sufficient. This supports the research of Jahanzeb, Bajuri and Ghori (2015), which states that large companies with liquid assets tend to reduce their debt levels.

## 5.5. The Relationship between Tangibility and Leverage

In this study, the results shown in the relationship between tangibility and leverage have no relation to each other. This can be seen in Appendix 2 if the number of fixed assets owned by the company increases, it is not related to the level of debt owned by manufacturing companies. The higher the companies' assets, do not make changes to their policy in using debt as a source of corporate funding. In obtaining debt financing, lenders do not see the number of assets owned by the company, but they consider the good company image and other variables that further support their trust.

In accordance with Suryanti's (2013) research, which examines the relationship between tangibility and leverage, these two variables are not related. However, contrary to the study of Jahanzeb, Bajuri and Ghori (2015) which states that tangibility shows a significant negative relationship to leverage and shows that large companies that have extra physical assets are anticipated to have lower debt obligations.

## 5.6. The Relationship between Firm Growth and Leverage

The relationship between company growth variables and the use of debt in manufacturing companies in this study results is positively related. This implies that the higher the value of the company's growth each year, the higher the company's debt utilization. The company's growth indicator is the increase in sales made by the company. If sales are increasing, it is necessary to have more funds to finance higher production. Companies tend to increase the use of debt to be able to meet production needs. The increased use of debt provides good growth opportunities for manufacturing companies. In previous research, Nagesha and Renuk (2016) also presented similar results in this study. Nagesha and Renuk (2016) state that company growth is positively related to leverage. In addition, companies that can adjust their share prices in a timely manner

are expected to obtain more debt financing for their future growth opportunities.

#### 5.7. The Relationship between Profitability and Leverage

The results of this study indicate that the relationship between profitability and leverage is negatively related. The higher the level of company profitability associates with the lower the level of use of corporate debt. This is because an increase in profitability will have an impact on an increase in internal funds such as retained earnings so that it will reduce the presence of outside corporate funding (debt). The higher the company's profitability each year, results in smaller debt usage in manufacturing companies. This study's results support the previous research conducted by Çekrezi (2013), which found that profitability was negatively related to the company's capital structure.

### 6. CONCLUSION

This study examines the relationship between company characteristics, market power, and leverage in manufacturing companies in Indonesia. From this research, it is found that the characteristics of company size (SIZE), company growth (GROWTH), and company profitability (PROF) have a significant negative relationship with leverage except for tangible assets. The results indicate that (TANG) is not related to leverage and Market power (MP) has a significant positive relationship to leverage. This study's limitation is that there is no explanation for the size of the market power variable, where a company is said to be monopolistic or non-monopolistic. The explanation only determines that the closer the variable to value of 1, it means the company is increasingly monopolizing the market. Another weakness of this study is that it cannot know the actual indicator for the company is in the category of companies that monopolize the market or not.

This study's results indicate a positive and negative relationship between company characteristics, market power, and leverage in manufacturing companies listed on the IDX from 2014 to 2017. Due to this study's limitations, the suggestion for further research is a more capable measure to determine whether the company is categorized as a monopoly or not. As for other suggestions, the authors suggest adding the selection of populations, samples, and years of research to provide more accurate results and reflect the actual situation.

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