Mitigating Risk On Capital Structure Decision

Indah Martati, Suminto, Dyah Kusrihandayani

Abstract: This research is an explanatory research using secondary data in the form of annual audited financial statements for manufacturing company LQ45 in Indonesian Stock Exchange the 2012-2016 periods. The Population was 25 companies with 9 samples. The research aims to prove whether there is a causality relationship between variables that represent the capital structure and the variables that represent profitability in relation to risk prevention efforts. Spearman rank correlation test proves the existence of a causality relationship between Total Asset Turn Over (TATO), Working capital Turn over (WCTO), Debt Equity Ratio (DER), Debt Ratio (DR), Price Earnings Ratio (PER) with Return On Asset (ROA) and Return On Equity (ROE). Furthermore, earning per share (EPS) and prices do not correlate with ROA and ROE of manufacturing companies in LQ45 on the Indonesia Stock Exchange. It implies that in order to mitigate risk in determining the capital structure, it is necessary to maintain the variable stability that reflects the capital structure until the condition of the balance between debts and own capital occurs.

Keywords: TATO, WCTO, DER, DR, PER, EPS, ROA, ROE, Mitigating Risk, Profitability.

1 INTRODUCTION

Studies related to capital fulfillment are often known as capital structure theory. Capital structure theory focuses more on the ideal combination of long-term debt and capital shares to obtain an optimal capital structure. Three things need to be considered regarding capital structure, namely: (1) the obligation to pay compensation for the use of capital to the provider of funds or the obligation to pay capital costs, (2) the extent of the intervention of the service provider, (3) the risks faced. Errors in capital structure decisions will have an impact on company profits. This is no exception to companies that have gone public, such as manufacturing companies that entered the Indonesia Stock Exchange LQ45 index. Manufacturing companies listed on the LQ45 index are the most liquid and most active leading companies in selling their shares on the Indonesia Stock Exchange. Manufacturing companies are companies that process raw materials into semi-finished and finished goods. National manufacturing growth in 2018 is driven by the steel and automotive industries, electronics, chemicals, pharmaceuticals, as well as food and beverages with a growth target of 5.67%. In the third quarter of 2017, some of these sub-sectors performed above economic growth. For example, the basic metal industry was 10.60%, food and beverage industry 9.49%, and transportation equipment industry 5.63%. The manufacturing sector is still the largest contributor to the national economy, through increasing the added value of domestic raw materials, absorption of local labor, and foreign exchange earnings from exports (Hartarto, 2018). The growth of the manufacturing industry which experienced a continuous increase in several sectors reflected intense competition between manufacturing companies to capture market share.

This reflects the situation in which each company needs the right policy in every company activity which is the task and responsibility of the company management. One of them is a capital structure decision to support each company’s activities in an effort to achieve its objectives. In carrying out corporate activity, capital is needed. Determination of capital structure is an important decision in a company because it involves achieving corporate profits. The rights or parts owned by the company which are shown in the share of capital stock, surplus and retained earnings, or the excess of assets owned by the company against all its debts are called capital (Munawir, 2004). Whereas Riyanto (2013) states that the capital structure reflects a balance between long-term debt and equity in the company’s permanent operations. The company is faced with a decision about the choice to use capital from debt, or from its own capital, or combine debt and equity. Decisions of funding with financial leverage or debt have an advantage, which can reduce the number of tax payments because the fixed interest expense arising from debt is different from dividend payments that cannot reduce tax payments. The composition of the amount of long-term debt and the amount of its own capital must be determined appropriately and in accordance with the required long-term funding capital requirements. The use of long-term funding must be able to generate enough cash flow to pay interest on debt and principal. On the other hand, debt also has several weaknesses?. The high debt ratio shows a high risk of the company so that high-interest rates are in line with interest costs. In addition, if a company experiences financial difficulties and the operating profit is insufficient to cover the interest expense, there will be a threat of bankruptcy costs. Efficient funding can occur when a company has an optimal capital structure. To make the right decision regarding the capital structure, it is necessary to understand the extent of the relationship between capital structure and profitability of the company. In line with the trade-off theory developed by Modigliani and Miller (MM) in 1958, which states that there will always be a trade-off between risk and return. They will always be directly proportional. In other words, if the risk of an investment decision tends to be high, the return will also be directly proportional. Likewise in funding decisions through debt, there will be gains and losses that will arise from the funding decision as previously explained. Understanding the valuation of trade-offs between risk and return from funding policies through debt will form the basis of the composition of the capital structure in an effort to maximize the welfare of shareholders. If the taxable profit is greater than the interest cost and bankruptcy costs, then the company should use debt
to maximize the value of the company. The value of the company will increase in line with the use of debt, as long as the debt position in the capital structure is still below the optimal capital structure target. If the position of the capital structure is above the target capital structure, then any increase in debt will reduce the value of the company. The use of debt as a source of funding can certainly increase the chances of company management to carry out various company activities due to additional cash for companies that can lead to free cash flow. The increase in cash flow is expected to affect the profitability of the company.

2. Literature Review

2.1 Financial Leverage

Debt Ratio (DR) is a comparison between total debt (short-term and long-term debt) and total assets. A higher DR value indicates greater company assets which are financed through debt resources. A high DR means that any additional debt will heighten the company's risk and simultaneously increase the expected rate of return (Dewi, 2012). Capital regulation policy involves an exchange between risks and returns where the amount of use of more debt will increase the risk borne by shareholders. However, greater use of debt will usually lead to higher returns on equity (Brigham and Houston, 2006). Every company funding decision by using debt will arise the cost of capital in it. It is the existence of fixed costs and expenses to pay interest on borrowed funds for company funding. Interest is a tax deduction expense that makes debt easier than ordinary shares or preferred shares. As a result indirectly the government has paid part of the costs of debt capital, or in other words, debt provides tax protection benefits. So, the use of debt provides more operating profit for the company received by investors. Therefore the more companies use debt, the higher the share price. According to the assumptions of Modigliani - Miller with taxes, the share price of a company would reach its full maximum value if the company fully used 100% debt. In the real world, companies rarely use 100% debt. The main reason the company limits the use of its debt is to keep costs associated with bankruptcy low.

2.2 Signaling Theory

There are several levels of debt limits, where the probability of bankruptcy is so low that it becomes unimportant. Then, the costs associated with bankruptcy become increasingly important, and these costs reduce the tax benefits of debts at ever higher rates. The costs associated with bankruptcy are reduced but do not fully cover the tax benefits of the debt, so the company's stock price rises as the debt ratio rises. However, then the costs associated with bankruptcy have exceeded the benefits of taxes, further increases in the debt ratio will reduce the value of the stock. There is the fact that many large successful companies use less debt than stated in this theory. This leads to signaling theory (Brigham and Houston, 2006). The separate owners of the company in the company in this case are represented by the board of commissioners (the shareholders) which is called the Principal, and the person who manages the company is the management (the person who is paid by the company) called the Agent. Because of the separation, there will be a conflict of interest. This happens because managers will not want to work for the benefit of the owner of the company if it is not in line with their interests. In the context of financial management, agency relations can be established between (1) shareholders and managers, (2) managers with debtors who provide debt, (3) between managers and shareholders, and debtors who provide debt which at one time will cause finance distress (Lubis and Putra, 2012). The motive for using financial leverage can be called a threat hypothesis because management is under threat of financial failure. Therefore, in accordance with agency theory in the capital structure, managers work more efficiently and discipline. This is intended to reduce free cash flow which ultimately affects returns on ordinary shares (Keown, 2000).

2.3 Packing Order Theory

On the other hand, internal funds are preferred because they allow companies to no longer need to open themselves from outside investors if they can obtain the necessary funding sources without obtaining them from outside investors as a result of the issuance of new shares. External funds are preferred in the form of debt rather than owned capital for two reasons: 1) bond issuance costs are cheaper than the costs of issuing new shares, and 2) managers are worried that the issuance of new shares will be interpreted as a bad result from investors and will cause the stock price to fall. The orders of funding sources by referring to the pecking order theory are internal funds, debt, and equity. This is consistent with the theory of pecking order which states that companies with high levels of profitability are actually low in debt because companies with high profitability have abundant internal funding sources (Myers, 1984). The higher the level of profitability the company shows the lower the use of corporate debt as stated by (Setyawan and Laksito, 2008). This Pecking Order theory explains the order of priorities of managers in determining their funding sources. The manager's preferences are stated in the order of funding sources starting from internal funding as the main source. The general motivation that causes managers to behave according to the Pecking Order theory is information asymmetry between the owner-manager who knows the value and opportunity to grow the actual company with outside investors who can only estimate these values (Frank and Goyal, 2005). Previous research regarding the relationship between financial leverage and the profitability of companies shows mixed results, meaning that there is still no consistency. Akhtar (2012) found a positive relationship between financial leverage (DER) and profitability (ROA, ROE, NPM, Growth Sales, and Dividend Cover Ratio). In line with these results Rehman (2013) found a positive relationship between leverage (DER) and ROA and Sales Growth. But in his research Leverage (DER) has a negative relationship with ROE, EPS, NPM. This contrasts with research of Akhtar (2012). While Pratheepkanth (2011) found that DER is negatively related to DR and DER, PER was negatively related to ROA, ROE, NPM, Growth Sales, and Dividend Cover Ratio. In line with this study Akhtar (2012) found a positive relationship between leverage (DER) and ROA and Sales Growth. But in his research Leverage (DER) has a negative relationship with ROE, EPS, NPM. This contrasts with research of Akhtar (2012). While Pratheepkanth (2011) found that DER has a positive relationship with Gross Profit Ratio, but has a negative relationship with Net Profit Ratio, ROA, and ROE. While there were studies that provided other evidence from Akhtar namely DR and DER, PER was negatively related to ROA, ROE results of research by (Enekwe, 2014; Samiloglu et al, 2017). Bulinet et al (2016) found a positive relationship between WCTO, PER, EPS and ROA variables and between Price and ROA according to (Kachchhy et al, 2014; Kabajeh et al, 2012). Based on this background, the purpose of this study is to analyze and prove the relationship between financial leverage and profitability as well as efforts to prevent the risk of loss in LQ45 manufacturing companies on the Indonesia Stock Exchange. The financial ratios used in the study as capital
Structure indicators include Debt Ratios (DR), Debt To Equity Ratio (DER), Earning Per Share (EPS), Price Earnings Ratio (PER), Working Capital Turn Over (WCTO), Total Assets Turn Over (TATO), and Share Price (Price) while profitability is indicated by Return On Assets (ROA) and Return on Equity (ROE).

3 Methodology

This research is a quantitative descriptive research in order to prove whether there is a relationship between variables used to represent the capital structure and the profitability of a company. The data used was secondary data from the Indonesia Stock Exchange with the manufacturing industry population in the LQ45 period 2012-2016 with a sample size of 9 companies. The correlation approach with the Pearson multi-correlation method is used to examine the degree of closeness, strength, and direction of the relationship between the variables DER, DR, EPS, PER, WCTO, TATO, and Price on ROA and ROE are used quantitative descriptive analysis tools with Pearson multi-correlation method. The relationship categories Sarwono (2006) between two variables is seen from the number of correlation coefficients with the number coefficient criteria 0 = no correlation, > 0.25 - 0.5 = moderate correlation, > 0.5 - 0.75 = Strong correlation, > 0.75 - 0.99 = Very strong correlation, 1 = Perfect correlation. The significance of the relationship is seen from the significant number of research results if the significant number is <0.05 = significant relationship, > 0.05 = insignificant relationship. To find out the direction of the relationship can be seen from the positive or negative coefficient values. If the coefficient is positive then the direction of the relationship is positive (unidirectional), and if the coefficient is negative then the direction of the relationship is not in the same direction.

4 Result

Capital Structure Variable Correlation and Return on Assets (ROA) Test Pearson correlation coefficient (r) is a tool used to determine the degree of closeness, significance, and direction of linearity between variables. Linearity relationships increase the predictive power of the model and the estimated coefficient validity. The result of the test shows the Pearson correlation coefficient value from the seven predictive variables as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Correlations between DR, DER, EPS, PER, TATO, WCTO, PRICE, WCTO with ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1, ROA</td>
<td>Y1, ROA Correlation, Sig. (2-tailed)</td>
</tr>
<tr>
<td>X2, DR</td>
<td>.596* (.05)</td>
</tr>
<tr>
<td>X2, DER</td>
<td>.619* (.01)</td>
</tr>
<tr>
<td>X3, EPS</td>
<td>.020 (.996)</td>
</tr>
<tr>
<td>X4, PER</td>
<td>.626* (.003)</td>
</tr>
<tr>
<td>X5, TATO</td>
<td>.998* (.000)</td>
</tr>
<tr>
<td>O</td>
<td>.803* (.000)</td>
</tr>
<tr>
<td>E</td>
<td>.233 (.124)</td>
</tr>
<tr>
<td>N</td>
<td>45</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

Linearity relationships with criteria ranging from very strong with ROA first are TATO positively related to very strong and significant with a correlation coefficient of 0.862 or r = 86.2% at p <0.05. Second, WCTO was negatively related to very strong and significant correlation coefficient -0.833 or r = -83.3% at p <0.05. A strong and significant positive relationship with ROA occurred in correlating DER, DR, and PER with correlation values 61.9%, 59.8%, and 59.6% at p <0.05. While Price (r = 23.3%) and EPS (r = 20%) have no relationship with ROA. TATO and ROA have a very strong positive linearity relationship with a Pearson correlation coefficient of 86.2% and significant at p <0.05. This can be interpreted that the high level of total assets turnover has a very strong causal relationship with the high profitability of the company. This study supports previous researchers (Enekwe, 2014; Bulin et al., 2015; Samlioglu et al., 2017) which reveals the linearity relationship between the three variables DER, DR, and PER with ROA is strong and significant negative. Variables that do not have a linear relationship with ROA are price and EPS. The causality relationship between DR and ROA namely the higher debt used in the capital structure implies an increase in debt interest. Increased interest on the debt will reduce income tax so that net profit after corporate tax increases. So the size of the debt used by LQ45 manufacturing companies on the Indonesia Stock Exchange is closely related to the company’s profitability. DER has a positive and strong causality relationship with ROA, this shows that the increase in the debt to equity ratio is closely related to the increase in the company’s profitability. Increasing DER will be followed by an increase in ROA. This means that the capital structure decision by combining debt and equity is closely related to the profitability of LQ45 manufacturing companies on the Indonesia Stock Exchange. The increase in company assets will increase debt and equity. This study shows that the company’s assets are financed by debt and equity. Therefore, to reduce risk in determining the capital structure, the company must use the right combination of debt and equity so that the profits of the company are maintained. The results of this study are different from Enekwe et al. (2014), which states that DR and DER are negatively and strongly related to ROA. A strong and significant positive linearity relationship between PER and ROA (0.598) can be interpreted as that profit per share is closely related and meaningful with ROA. The connection is the greater the PER, the greater the profitability of the company. Linearity relationship between the seven independent variables as capital structure and ROE proxies as listed in Table 2, WCTO and ROE has a negative and very strong linearity relationship with a value of r = -89.7% and significant at p <0.05. The results of this study indicate that there is a very strong causality relationship in the opposite direction. The more effective the use of working capital to generate company sales, the lower the rate of return on your own capital. A positive and very strong linearity relationship with a value of r = 82.4% and significant at p <0.05 occurs in the DER variable. This means that the high value of the ratio between debts to equity has a very strong causality relationship with ROE. This study supports the research of Chavali and Rosario (2018). Likewise, the linearity relationship between TATO and ROE is very positive and very strong with a value of r = 82.1% and significant at p <0.05, meaning that...
the higher the turnover of assets, the result is very strong in the high value of ROE.

**TABLE 2**

<table>
<thead>
<tr>
<th></th>
<th>X1, D</th>
<th>X2, DER</th>
<th>X3, EPS</th>
<th>X4, PER</th>
<th>X5, TATO</th>
<th>X6, WCTO</th>
<th>X7, PRICE</th>
<th>Y2, ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>.655</td>
<td>.824</td>
<td>-.951</td>
<td>.707</td>
<td>.821</td>
<td>-.997</td>
<td>.286</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.050</td>
</tr>
</tbody>
</table>

p < .05, meaning that the higher the price to earnings ratio per share, and the ratio debt encourages an increase in the level of profitability of the company. This is in line with the research of Arbaiyah, et al (2009). While for the category of positive / negative linearity, weak and insignificant at P > 0.05 occurs in the variable Price (r = 28.6%) and variable EPS (r = -31%). This means that there is no change in prices and EPS is not related to the profitability of the company.

**5 DISCUSSION**

Based on the test results prove that the decision of manufacturing companies to fund assets with financial leverage or with debt there is an association between financial leverage and profitability indicates that there is a strong and significant unidirectional relationship. This is in accordance with the Trade-off theory, the higher the risk the higher the return obtained by the company. This means that the consequences that arise with funding decisions with debt are the fixed costs and expenses of interest and high risk for management from bankruptcy if it is unable to repay the borrowed debt. But on the other hand with the existence of capital from debt, there is discretionary cash that management can use for other productive activities that can generate greater profits. WCTO consistently has a very strong and significant negative relationship with profitability (ROA and ROE) of LQ45 manufacturing companies on the Indonesia stock exchange. This means that in an effort to reduce the risk in determining the capital structure and to maintain the company's profitability, working capital turnover must be maintained in balance with fixed asset turnover and the ability of its own capital to generate corporate profits. When WCTO is high shows the effectiveness of working capital in generating sales so that the ability to generate profitability of the company is low because the funds are reused as working capital. TATO has a very strong and significant positive relationship with ROA and ROE. The higher the ability of an asset to generate sales, the higher the chances of the company to obtain a profit that is measured by the high return on assets and return on its own capital. PER has a positive and strong linearity relationship with ROA and ROE, meaning that the high ratio between price and profit per share can increase asset return and own capital return. A very strong and significant positive relationship between DER and ROA can be interpreted as an increase in cash flow from debt which can increase the chances of company management to carry out various activities that can increase the company's profitability. Likewise, with a very strong and significant positive relationship between DER and ROE, it is understood that the capital structure policy involves an exchange between risk and return. The use of more debt will increase the risk borne by shareholders. However, the use of larger debt will usually lead to expectations of higher returns on equity. This research is in line with the previous researcher Akhtar (2012) which was a strong, positive and significant relationship for DER with ROA and ROE, and supports Rehman's research (2013) for DER with ROA but not for ROE. This research also provides a development of evidence of a positive, strong and significant relationship between DR and ROA and ROE. It can be interpreted that the greater the assets of a company that is financed through debt resources, it will increase the company's risk and will increase the expected rate of return. Information on the clarity of the relationship between the leverage ratio and profitability ratio in LQ45 manufacturing companies on the Indonesia Stock Exchange with positive results is very strong and significant, which is very beneficial for investors. This means that with investment in manufacturing companies that are perspective and a high level of return. Most of independent variables that have a significant causality relationship with profitability need to be considered by the company to maintain the right balance of the capital structure. TATO, WCTO, DER, DR, PER are variables that need to be considered in determining the company's capital structure, because these variables have a strong causal relationship to profitability. The high ratio of TATO, DER, DR, PER can cause an increase in the company's profitability, while the low ratio of WCTO is closely related as a cause of increasing profitability. The stability of the ratio of the five variables until there is a balance between the amount of debt and equity is a condition that must be met to prevent losses.

**6 CONCLUSION**

In general it can be concluded that the results of the study can reveal: 1) There is a very strong and significant negative linearity relationship between WCTO and ROA, and ROE; 2) There is a very strong and significant positive linearity relationship between TATO with ROA, and ROE; 3) There is a very strong and significant positive linearity relationship between DER and ROA; 4) There is a strong and significant positive linearity relationship between TATO with ROA, and ROE; 5) There is a strong and significant positive linearity relationship between DR with ROA, and ROE; 6) There is a strong and significant positive linearity relationship between PER with ROA, and ROE; 7) There is no linearity relationship between Price, EPS with ROA and ROE. Prevention of the risk of increasing company’s profitability can be achieved by determining the optimal capital structure decision and by striving for the stability of the WCTO, TATO, DER, PER, DR ratios which have a causality relationship closely with the profitability of the company. The decision to use debt causes the consequences of fixed costs and charges on interest on loans to fund its investment. There is a trade-off between risk and a directly proportional return. The greater the assets of a company financed through debt resources, the greater the risk of the company the higher of the expected rate of return.

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2012-2016 Period. Indah Martati, SE, MM is a permanent lecturer in financial management in the Marketing Management Study Program. Drs. Suminto, M.Hum, M.Pd.BI is a permanent lecturer in Business English in the Marketing Management Study Program. Dyah Kusrihandayani, SE, MM is a permanent lecturer in courses in financial institutions and banks in the Business Administration Study Program. We thank to the director of Politeknik Negeri Samarinda for granting this research because the research is part of the Lecturer Research Grant funded by DIPA Polytechnic of Samarinda in the 2017 Fiscal Year entitled The Influence of Capital Structure on the Profitability of Manufacturing Companies in LQ45 on the Indonesia Stock Exchange for the 2012-2016 Period. Indah Martati, SE, MM is a permanent lecturer in financial management in the Marketing Management Study Program. Drs. Suminto, M.Hum, M.Pd.BI is a permanent lecturer in Business English in the Marketing Management Study Program. Dyah Kusrihandayani, SE, MM is a permanent lecturer in courses in financial institutions and banks in the Business Administration Study Program.

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