DETERMINANTS OF DEBT POLICY IN CONSUMER GOODS COMPANY IN INDONESIA

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ABSTRACT

The intended of this study was to determine the effect of business risk, non-debt tax shields, and firm size on debt policy. The population consists of companies that in the 2019-2021 period are listed on the Stock Exchange in the consumer goods group. Purposive sampling technique was applied to select samples from as many as 74 companies, of which 40 consumer goods companies met the criteria, so that in total there were 120 research data. Data analysis was carried out using Multiple Linear Regression and data processing data is supported by EViews 12. The findings of this research show that changes in company size will move debt policy in a significant and positive direction. Meanwhile, business risk and non-debt tax shields have insignificant effect on debt policy for companies in the consumer goods group registered on the Indonesia Stock Exchange.

Keywords: Debt Policy, Non-Debt Tax Shields, Business Risk, Firm Size.

1. INTRODUCTION

The effect of globalization on the Indonesian economy is the intense competition between companies that have sprung up and started operating. One of them comes from the manufacturing industry in Indonesia. In the Purchasing Manufacturing Index for the 2018-2021 period, it is known that for 2018 to mid-2019, the Purchasing Manufacturing Index value is above 50 which indicates a pretty good value. Then, it is known that for late 2019 to mid 2020, the Purchasing Manufacturing Index value was below 50. In fact, its value had shot down to 27.5, but in October 2020 it managed to increase its value to 47.8 which indicates a recovery in the manufacturing industry. Apart from that, Indonesia's Manufacturing PMI throughout 2021 even broke the record for the highest number in history, which was at 53.2 in March, then 54.6 in April, 55.3 in May, and a peak of 57.2 in October [1].

Based on market capitalization data for the consumer goods group obtained on the website www.idx.co.id, it is known that in 2018 the value was Rp. 1,455,771 billion and decreased in 2019 to Rp. 1,170,945 billion, then in 2020 it decreased to Rp. 1,056,643 billion. Despite data showing that there was a decline, the consumer goods sector still had the highest market capitalization figure among the two other manufacturing sectors in 2020, namely basic industry and chemicals at Rp. 740,626 and for miscellaneous industry at Rp. 329,465. Based on the data that has been described, it is concluded that the consumer goods sector is very influential for the manufacturing industry and of course in the face of this intense competition, the consumer goods sector companies will endeavor to carry out developments that require substantial funding.

The manufacturing industry also consists of several sectors, one sector that has a fairly good influence is the consumer goods sector, because this sector has many consumers.
This consumer goods company must have a good strategy to overcome the existing competition. Companies can develop their business and performance to the maximum extent possible, which of course will require no small amount of money. According to Endri et al [2], the company's goal is the survival of the company by getting big profits and paying attention to the welfare of the company owners. A company's source of funding can be obtained through a combination of its own capital (equity) and company debt. Equity can come from internal or external to the company. However, every decision on the source of company funding certainly has different financial consequences and characteristics [3]. Therefore, the company’s financial manager is required to be able to manage the funding that will be used optimally, so that all the company's operational activities are run well and the company's goals can be fulfilled.

Debt policy is an important aspect in a company because debt policy is closely related to decisions or policies regarding the sources of funds that will be accessed by the company. The use of debt certainly has several benefits, but debt also has its drawbacks. There are several factors that play a role in the company external funding (debt) decisions. The factors that will be discussed in this study are business risk, firm size, and non-debt tax shields. The first driving factor that can drive a company's debt policy is business risk. Companies that have high business risks in carrying out their operations will try to avoid using high debt in financing their assets. Therefore, business risk create a negative influence on debt policy [4]. However, according to Viriya and Suryaningsih in [5] manufacturing companies in Indonesia have low business risk so that creditors will be interested in providing loan funds.

The second aspect that drives company debt policy is non-debt tax shields. In addition to tax benefits derived from interest on loans (debt-tax shields), companies can also obtain tax benefits through depreciation expense on fixed assets (non-debt tax shields) so that companies with high levels of non-debt tax shields indicate the use of debt that is high. low [6]. However, according to Abdulmumin in [3] management needs to increase and maximize the use of debt so that there is a positive effect of non-debt tax shields toward debt policy.

Another factor that influences a company's debt policy is firm size. According to Lin et al. in [7], when compared to small-scale companies, large companies generally prefer external funding sources because large-scale companies have assets that can be provided as debt guarantees. Therefore, there is a strong positive relationship between debt policy and firm size, Ehikoya [8] also stated that big companies tend to have better access to financial markets and have more debt in their capital structure because of the company's capability to provide guarantees. Meanwhile, On the other hand, Ulum in [9] found that larger companies tend to reduce the use of debt, on the contrary, the smaller the size of the company, they will prefer to increase the use of debt. Based on the explanation that has been described previously, the purpose of this research is to answer (1) is there any influence of business risk on debt policy (2) is there any effect of non-debt tax shields on debt policy (3) is firm size affected on debt policy?

2. THEORETICAL BACKGROUND

Trade-off Theory

The trade-off theory according to Brigham et al in [10] is a theory which states that the company will optimize the tax benefits obtained from debt financing against the potential for bankruptcy experienced by the company. Sulistiani and Agustina in [11] state that the trade-off theory is a combination of the benefits of using debt and the risks that may arise. The use
of debt based on the trade-off theory will provide tax advantages, but also bring opportunities for losses for the company because of the interest expense. When the company has a high amount of debt, the impact is where the risk of financial difficulties will be high and will lead to bankruptcy.

**Signaling Theory**

This theory is related to information asymmetry between companies and potential investors. According to Brigham et al in [12] Signals are activities carried out by company management to provide clues to investors to assess the company's prospects in the future. Signaling theory can motivate companies to maintain loan capacity to allow future investment opportunities to be financed by debt, if internal funds are insufficient. Companies with more favorable conditions will avoid selling shares and prefer to use high levels of debt, while less profitable companies will choose to fund through the sale of shares [13].

**Pecking Order Theory**

The Pecking Order theory states that there is a hierarchy of funding sources within the company [5]. This theory has the view that if financial managers need funds for company activities, company managers is prefer to choose internal funds to be used as the first option. However, if inhouse funds are no longer adequate, the company will meet its funding needs through external funds [2]. Based on this theory, when internal funds are insufficient, the use of debt will be preferred because it is a small risk compared to issuing new shares, and the costs incurred for debt are much smaller than financing for equity [14].

**Business Risk and its influence on Debt Policy**

Business risk is the risk that will be faced by the common shareholders of a company that arises from uncertainty in the company's cash flow projections. In other words, there is uncertainty about how much a company's operating profit will be, how much should be invested to develop new products, build new factories, and so on [10]. A company is said to face business risk when it generates fluctuations in income over time. The higher business risk faced by the company will make it more careful in financing with debt. Companies that have large amounts of debt as a result of their operating activities will experience an increased risk of bankruptcy, so companies will use lower debt to fund their assets. The results of research conducted by Arfina [4]show that business risk has a significant effect and has a negative relationship to debt policy, which means that the higher the business risk of a company, the lower the use of debt. This opinion is similar to the trade off theory which tends to seek equality of the costs of an action taken with the benefits to be obtained, so that decisions in the use of debt are always accompanied by the calculation of the benefits of debt costs and interest incurred. Meanwhile, according to the finding of research conducted by Viriya and Suryaningsih [5], business risk has influence positively on debt policy. Based on observations of the average business risk in companies of manufacturing group in Indonesia, it shows a low value, so that creditors will be interested in providing loan funds. However, research conducted by Permanasari [6], Lin et al. [7], Mukhibad et al. [14], and Veronica [15] stated that business risk has no significant effect on debt policy. This can happen because the level of business risk of a company is difficult to measure with certainty. Companies with a high level of risk will create differences of opinion, creditors or investors will see companies with high business risk as the hope of getting a high return as well.
Non Debt Tax Shields and it’s Effect on Debt Policy

Non-debt tax shields are an alternative tax advantage that can be used to bring down the tax liability that must be paid by a company [7]. Permanasari [6] states that non-debt tax shields are tax benefits obtained by a company other than debt interest. In addition to interest on debt, there are other components that can provide tax advantages, namely depreciation of fixed assets. Research conducted by Permanasari [6] and Lin et al [7] states that non debt tax shield causes a negative influence on policy. Based on the pecking order theory view, non-debt tax shields with a large value indicate that a company tends to reduce the use of debt, because company managers will choose to use internal funds compared to external funds in order to bring down the tax burden that must be paid. Lin et al [7] said that companies that have a large value of non-debt tax shields will use debt in small amounts, because high debt used will result in high interest on debt, so companies tend to consider the risks that may occur, this statement is in line with with the trade-off theory. Meanwhile, research conducted by Abdulmumin [3] states that non-debt tax shields have a positive effect on debt policy. The high value of non-debt tax shields will lead to high debt policies, because creditors will believe in providing larger loans. Meanwhile, Endri et al. [2] states that non-debt tax shields do not have a significant effect on debt policy, because companies do not use depreciation for tax deductions. Ehikioya [8] stated that non-debt tax shields have a positive but not significant effect.

Firm Size and Its Effect on Debt Policy

Firm size is the amount of resources such as assets, technology, intellectual property, and so on owned by the company [16]. In a study conducted by Lin et al. [7], Ehikioya [8], Sulistiani and Agustina [11], as well as research from Nurdani and Rahmawati [16] which states that firm size and debt policy have a significant positive relationship. Variations between large and small scale companies are closely related to the debt policy of a company because decision making and limited skills and knowledge of managers with large scale companies tend to be different from those of small scale companies. In addition, large-scale companies tend to use external funding sources more than small-scale companies because large-scale companies have assets that can be provided as debt guarantees [7]. Companies with large scale certainly require more funds than small companies. Therefore, this decision is related to the pecking order theory which states that if retained earnings are not sufficient for the company's needs, then debt can be the next decision [16]. According to signaling theory, large collateral can be a sign that the company is able to repay its foreign loans. In addition, large companies usually publish financial reports, which display information about their performance to external parties [14]. Meanwhile, research conducted by Ulum [9] states that firm size has a negative influence on a company's debt policy because the larger the size of a company, it will have an impact on reducing debt and vice versa. However, Nugraha et al. [17] and Abdulmumin [3] state that firm size has no effect on a company's debt policy.

Research Framework and Hypotheses

Based on the theory and the interrelationships between the variables have been explained above, the framework and the research model is depicted in the following chart:
Based on this Figure, the formulation of the research hypothesis is structured as follows:

**H1**: Business risk has a negative effect on debt policy

**H2**: Non-debt tax shields effect on debt policy negatively

**H3**: Firm size give a positive effect toward debt policy

### 3. RESEARCH METHOD

The research design used is descriptive quantitative and the research subjects are consumer goods companies for the 2019-2021 period listed on IDX. The purposive sampling method was applied to sample selection with the following criteria: Consumer Goods sector companies listed on IDX consecutively in 2019-2021, companies consistently presenting annual financial reports during the study period, having complete financial statement data related to research variables.

For data analysis, the panel data must first pass the multicollinearity test. After that, Chow, Hausman and LM tests were conducted to select the most suitable regression model from the Fixed Effect Model (FEM), Random Effect Model (REM), and Common Effect Model (CEM). The hypothesis in this study will be analyzed using multiple linear regression test, which includes the coefficient of determination (R2) test, and the t statistic test. The purpose of the test is to determine the effect of business risk, non-debt tax shields, and firm size on a company’s debt policy.

Variable operationalization is summarized in Table 1 below:

### Table 1. Variable Operations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Scale</th>
<th>Source</th>
</tr>
</thead>
</table>
| Debt Policy               | \[
|                          | \(\text{DAR} = \frac{\text{Total Debt}}{\text{Total Assets}}\) \] | Ratio   | [18]   |
| Business Risk             | \[
|                          | \(\text{RISK} - \text{STD} = \frac{\text{Operating Income}}{\text{Total Assets}}\) \] | Ratio   | [6]    |
| Non-Debt Tax Shields      | \[
|                          | \(\text{Non-Debt Tax Shields} = \frac{\text{Degradation}}{\text{Total Assets}}\) \] | Ratio   | [7]    |
| Firm Size                 | \[
|                          | \(\text{SIZE} = \ln(\text{Total Assets})\) \] | Ratio   | [13]   |

Source: Data Processed by Researchers
4. RESULTS AND DISCUSSION

The population in this study were 74 consumer goods sector companies listed on IDX in the 2019-2021 period. Based on the purposive sampling criteria, 40 consumer goods companies were selected that met the criteria with a total data of 120 companies.

Panel Data Model Selection

To decide which of the FEM, REM or CEM is the most appropriate to the research data, the Chow and Hausman tests are carried out with the following test results:

<table>
<thead>
<tr>
<th>Testing</th>
<th>Function</th>
<th>Test Indicator</th>
<th>Prob.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test</td>
<td>Choose between</td>
<td>Cross-Section</td>
<td>0.0000 &lt; 0.05</td>
<td>FEM</td>
</tr>
<tr>
<td>Hausman Test</td>
<td>Choose between</td>
<td>Cross-Section</td>
<td>0.0005 &lt; 0.05</td>
<td>FEM</td>
</tr>
</tbody>
</table>

Source: Data Processed by Researchers

From the results of the Chow test and Hausman test, it is recommended that the Fixed Effect Model is more suitable.

Multicollinearity Test Results

According to Basuki and Prawoto in [18] multicollinearity shows a linear relationship between the independent variable x in the multiple regression model. If the correlation value between the independent variables is less than 0.80 then there is no multicollinearity problem. The following are the results of the multicollinearity test which are presented in the table below.

<table>
<thead>
<tr>
<th>Business Risk</th>
<th>Non_Debt_Tax_Shields</th>
<th>Firm_Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Risk</td>
<td>1.000000</td>
<td>-0.117796</td>
</tr>
<tr>
<td>Non_Debt_Tax_Shields</td>
<td>-0.117796</td>
<td>1.000000</td>
</tr>
<tr>
<td>Firm_Size</td>
<td>-0.060292</td>
<td>-0.202940</td>
</tr>
</tbody>
</table>

Source: Data Processed by Researchers

Refer to information from the results shown in Table 3, there is no multicollinearity problem in this study due to the correlation value between the independent variables of this study is smaller than 0.80.

Multiple Regression Analysis Results

Multiple linear regression analysis using Fixed Effed Model gives results as shown in Table 4 below:
Table 4. Multiple Regression Analysis on Debt Policy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-4.993838</td>
<td>0.0232</td>
</tr>
<tr>
<td>Business Risk</td>
<td>0.301046</td>
<td>0.8877</td>
</tr>
<tr>
<td>Non Debt Tax Shields</td>
<td>-2.075423</td>
<td>0.0973</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.188834</td>
<td>0.0108</td>
</tr>
</tbody>
</table>

Source: Data Processed by Researchers

The coefficient column describes the magnitude and change in the dependent variable caused by the independent variable. Meanwhile there is a Prob column which provides information about the level of significance of the influence caused by the independent variable on the dependent variable. The independent variable is said to have a significant influence on the dependent variable when the Prob value is less than 0.05.

Based on the explanation above, the results can be explained in Table 4 as follows.

1. The Debt Policy variable in this study has a constant value of -4.993838. This evidence that in case all the exogen variables in this study, namely business risk, non-debt tax shields, and firm size are assumed to have a value equal to zero, the value of debt policy is -4.993838.
2. Business Risk brings a positive and insignificant effect on Debt Policy, where every increase in one business risk unit will increase the Debt Policy value by 0.301046, and vice versa where every decrease in one business risk unit will reduce the Debt Policy value by 0.301046.
3. Non Debt Tax Shields brings an insignificant negative effect on Debt Policy which is not significant. Each increase of one unit of non-debt tax shields will decrease the value of the Debt Policy by 2.075423 and vice versa.
4. Firm Size has a positive and significant impact on Debt Policy. This means that every increase of one firm size unit will encourage an increase in Debt Policy of 0.188834. Likewise, every decrease in one firm size unit will cause a decrease in Debt Policy by 0.188834.

Coefficient of Determination Test (R²)

According to Ghozali and Ratmono (2017:55), the coefficient of determination (R²) is used to measure the ability of a model to explain or explain the variation of a particular variable. A low value of the coefficient of determination can indicate that the independent variables have a limited ability to explain the variation of the dependent variable. Meanwhile, if the value of a coefficient of determination is close to one, this indicates that the independent variables have a high ability to explain the variation of the dependent variable. The results of the coefficient of determination test are as follows:

Table 5. Coefficient of Determination Test Results (R²)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.928907</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.890129</td>
</tr>
</tbody>
</table>

Source: Data Processed by Researchers
From information in Table 5 above, the adjusted R\(^2\) value in this study shows a value of 0.890129. This shows that the contribution of the independent variables in this study, namely business risk, non-debt tax shields, and firm size in predicting variations in debt policy variables is 89.01%, and the remaining 10.99% is explained by other variables not discussed in this study. this research.

**Discussion**

**The Influence of Business Risk on Debt Policy**

Referes to information in Table 4, the probability value of business risk is 0.8877, which is greater than the specified significance value of 0.05 and has a positive coefficient value of 0.301046. It can be concluded that business risk has a positive and insignificant effect on debt policy. This means that the first hypothesis (H1) in this study is rejected. These results explain that if the value of business risk increases, the value of debt policy will also increase and vice versa. This result is in line with the results of a study conducted by Viriya and Suryaningsih [5] which said that business risk has a positive influence on debt policy. Based on the results of research by Viriya and Suryaningsih [5] observations of the average business risk in manufacturing companies in Indonesia show a low value, so that creditors will be interested in providing loan funds. The same thing found in this research, shows that the average business risk for consumer goods companies in Indonesia is 0.037925. This means that on average, consumer goods companies listed on IDX for the 2019-2021 period have a fairly low business risk of 3.79%. This is in line with signaling theory, where creditors will perceive this information as a positive signal and will trust the company to provide loans in larger amounts. The results of research conducted by Permanasari [6], Lin et al. [7], Mukhibad et al [14], and Veronica [15] stated that business risk has no significant effect on debt policy. This can happen because the level of business risk of a company is difficult to measure with certainty. However, the results of this study contradict the results of research conducted by Arfina [4] which shows that business risk has a significant and negative relationship to debt policy, which means that the higher the business risk of a company, the lower the use of debt. This statement is in line with the trade off theory which considers the balance between the benefits and costs of certain actions, so that in determining debt policy one must consider the benefits to the costs of debt plus the interest incurred.

**The Effect of Non Debt Tax Shields on Debt Policy**

Stick to the information on Table 4, the probability value of non-debt tax shields is 0.0973, which is greater than the specified significance value of 0.05 and has a negative coefficient value of -2.075423. It can be concluded that non-debt tax shields have a negative and insignificant effect on debt policy. This shows that the second hypothesis (H2) in this study is rejected. This result explains that if the value of non-debt tax shields increases, then the value of debt policy will decrease and vice versa. These results indicate that the size of the value of non-debt tax shields does not significantly affect the size of the use of debt. This statement is in line with the results of research conducted by Endri et al. [2] states that non-debt tax shields do not have a significant effect on debt policy, because companies do not use depreciation from fixed assets for tax deductions. This is because the value is considered too small or too little to be used as a tax savings of a company. The negative direction shown can be explained according to the research conducted by Permanasari [6] and Lin et al. [7] which states that there is a negative effect between non-debt tax shields and debt policy. Based on the pecking order theory view, non-debt tax shields with a large value indicate that a company tends to reduce
the use of debt, because company managers will choose to use internal funds compared to external funds in order to reduce the tax burden that must be paid. Lin et al. [7] said that companies that have a large value of non-debt tax shields will use debt in small amounts, because high debt used will result in high interest on debt, so companies tend to consider the risks that may occur, this statement is in line with with the trade-off theory. Ehikioya [8] stated that non-debt tax shields have a positive but not significant effect. Meanwhile, research conducted by [3] states that non-debt tax shields have a positive effect on debt policy. The high value of non-debt tax shields will lead to high debt policies, because creditors will believe in providing larger loans.

The Effect of Firm Size on Debt Policy

By relying on the result showed in Table 4, the probability value of the firm size is 0.0108, which is smaller than the specified significance value of 0.05 and has a positive coefficient value of 0.188834. It can be concluded that firm size has a positive and significant effect on debt policy. This shows that the third hypothesis (H3) in this study is accepted. These results explain that if the value of firm size increases, then the value of debt policy will also increase and vice versa. These results are in line with the results of the research conducted by Lin et al. [7], Ehikioya [8], Sulistiani and Agustina [11], and research from Nurdani and Rahmawati [16] which states that firm size and debt policy have a significant positive relationship. Variations between large and small scale companies are closely related to the debt policy of a company because decision making and limited skills and knowledge of managers with large scale companies tend to be different from those of small scale companies. In addition, large-scale companies tend to use external funding sources more than small-scale companies because large-scale companies have assets that can be provided as debt guarantees [7]. Companies with large scale certainly require more funds than small companies. Therefore, this decision is related to the pecking order theory which states that if retained earnings are not sufficient for the company's needs, then debt can be the next decision [16]. According to signaling theory, large collateral can be a sign that the company is able to repay its foreign loans. In addition, large companies usually publish financial reports, which display information about their performance to external parties [14]. Meanwhile, research conducted by Ulum [9] states that firm size has a negative influence on a company's debt policy because the larger the size of a company, it will have an impact on reducing debt and vice versa. However, Nugraha et al. [17] and Abdulmumin [3] state that firm size has no effect on a company's debt policy.

Conclusion

Based on statistical tests that have been carried out on consumer goods sector companies for the 2019-2021 period, the conclusions from this study are: Firm Size partially has a positive and significant influence on the debt policy variable. Business risk has a positive and insignificant effect on debt policy, and Non-debt tax shields has a negative and insignificant effect on debt policy.

From the results of this study it can be concluded that the amount of assets owned by the company is one of the factors considered by debt holders in providing loans, this is as a guarantee for debt holders for loans given to companies.
REFERENCES


