THE EFFECT OF PROFITABILITY, COMPANY SIZE, AND MANAGERIAL OWNERSHIP ON DEBT POLICY

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ABSTRACT

The purpose of this study is to examine the impact of profitability, firm size, and managerial ownership on debt policy in manufacturing companies listed on the Indonesia Stock Exchange between 2018 and 2020. This study used 50 companies from 166 manufacturing companies that had been selected according to sample criteria using the purposive sampling method. Eviews version 12.0 was used to process the data, and the statistical method utilized was multiple linear regression. In this study, partial test results show that profitability and ownership of management do not have a significant impact on debt policy, while the variables of firm size have positive and significant impact on firm debt policy. However, in this study, simultaneous test results show that variables of profitability, firm size, and ownership of management variable have a significant impact on firm debt policy.

Keywords: Debt Policy, Profitability, Firm Size, Ownership of Management

1. INTRODUCTION

The world has continued to evolve and change over the years. Of course, this relates to the corporate sector as well. In the midst of progress and change, every organization must be able to react and come up with creative ideas for carrying out its operational activities in order to meet the goals that have been set. There must be a primary purpose in the firm that is to improve the value of the company, which can be characterized as enhancing the wealth and welfare of shareholders. Of course, in order to do so, the corporation will aim to maximize its current earnings and share price.

However, in order to keep up with innovations and developments in the midst of intense competition in this economic activity, the firm must invest large resources in order for operations to continue. As a result, the firm must be wise when choosing on the source of its capital. The company has two funding options: internal sources of funds generated from retained earnings and external sources of funds received from creditors in the form of debt and investors in the form of capital [1]. If the firm's own funding is insufficient to finance its operating activities, the corporation will turn to external sources of funds, called debt.

Some of the advantages of using debt as a source of business financing include the fact that interest collected on loans is tax deductible on earnings, and corporations are not required to share profits with creditors [2]. However, if a firm uses its source of finances in the form of debt and then discovers that it is unable to repay the debt, the company's liquidity would be affected [1]. As a result, a debt policy is required to assist management in making decisions about the source of funding for debt-ridden businesses.

This study uses one dependent variables, namely debt policy. A debt policy is the policy that the company sets to decide the source of financing that it will choose [3]. A debt policy is computed in a variety of ways, one of which is the Proxy Debt to Total Asset Ratio (DAR).
The greater the value of the debt to total asset ratio (DAR), the more corporate debt is used to finance the company's assets to fund its operational activities [4].

This study also uses three independent variables, namely profitability, firm size, and managerial ownership. Profitability is a measure of a company's success or failure based on the results of its earnings in operational operations [5]. To assess a company's profitability value, many sizes may be used, one of which is the Return on Asset (ROA) proxy. The higher the return on assets (ROA), the better the company's performance and the greater the profit. This signifies that the company's own finance is sufficient to maintain its operating activities, therefore debt will be used infrequently [1].

Firm size is a measure of company size. The larger the firm, the more cash is required to sustain its operating activities [6]. Companies with a high firm size value should have adequate internal cash to lessen their reliance on debt. Large companies are thought to have more guaranteed returns on loans because they have a large income coverage and a large business scale, as is well known in many circles. This way, the source of internal funds will also meet all the needs of the source of funds.

Managerial ownership is a part of share ownership held by management, implying that management is also a stakeholder in the firm [1]. The higher the value of managerial ownership, the less debt will be used since management with shareholder status will be more cautious about cutting off the company's funding source [7].

There have been many studies conducted by researchers to find out what factors influence debt policy, including those based on profitability, firm size, and managerial ownership. The greater the profitability, the smaller of debt consumption in the organization. Novitasari and Viriany [6], Clara and Sudirgo [8], and Lourenço and Oliveira [9] found that profitability has a significant and negative effect on debt policy. But another result by Angela and Yanti [1] found that profitability has no insignificant and negative effect on debt policy.

The firm size has a different result, Novitasari and Viriany [6], and Hasan [10], found that firm size has a significant and positive effect on debt policy. But another result found by Narita [11], Muslim and Puspa [12], and Nuraeni and Imam [13]. firm size has insignificant and positive effect on debt policy.

The greater managerial ownership, the smaller of debt consumption. Sheisarvian, et al., [7] and Hasan [10] found ownership of the manager has a significant and negative impact on debt policy but Angela and Yanti [1] found that ownership of manager has an insignificant and negative impact on debt policy.

2. LITERATURE REVIEW

Agency Theory

This theory examines the interaction between the investors and the managers and how the two parties with opposing aims might collaborate to achieve alignment [8]. Control procedures can help to reduce the possibility of potential conflicts between manager and investors. This control process, however, may result in agency costs. According to Jensen and Meckling in Wardana [14], the existence of managerial share ownership will align or equalize the interests of both parties, namely the interests of managers and shareholders. The
second is to increase funding through debt. Third, by increasing the dividend payout ratio, with limited free cash flow, management will be forced to seek funding from external sources to finance its investment activities.

**Signalling Theory**

Signalling Theory is a theory that explains what kind of action a company can take to give investors a clue as to how management sees the company's performance by use of a signal or cue, Brigham and Houston in Connie and Iskak, [5]. The signal provided by the company in the form of information that contains good news or bad news will later help or become a reference for users of financial statements related to economic decision-making, especially for investors and creditors, and others, in order to assess a company's prospects, the company's performance, and financial condition as well. Why is the company encouraged to give signals (information) to shareholders or third parties? That's also related to information asymmetry between the company's manager and investors or other outside parties. The company's management certainly knows more about the company than the shareholders or external parties.

Similarly, a high degree of profitability is a strong indicator for investors since the company's success is more predictable. The firm's high level of measurement also influences the company's capacity to pay its obligations, thus this is important information for the company to know. The amount of debt used by the organization is also determined by the extent of management ownership. These three items are about facts that investors and creditors need to know as a material for development in their investments.

**Debt Policy**

Debt policy refers to the rules that management will implement in order to get the company's financing source, which will be made and use to help the company's operating activities. According to Zurriah and Sembiring [15] a debt policy is an internal control mechanism used by a company to reduce issues between manager and investor and the emergence of agency costs. As a result, there is a conclusion. A debt policy is a policy or method that a company follows when opting to utilize external sources of money, namely debt, and how the firm controls the source of funds in order to prevent conflicts and risks that may arise as a result of the choice to use debt. Funding with debt will increase the expected return on an investment, but debt also increases investment risk. On the other hand, companies that have a lower level of business risk and more stable cash flow have a higher ability to pay off debt [16]. Shareholders believe that the use of debt will not limit their rights to the firm. Managers, on the other hand, do not want the funds to be provided since debt is risky.

**Profitability**

According to Connie and Iskak [5], profitability is a measure of a firm's proficiency in earning profits, as demonstrated by the success of activities inside the organization during a specific time period. Profitability, according to Novitasari and Viriany [6] is a tool used to measure the level of ability and success of a company to profit by selling and investing over a period of time using the company's resources such as assets, capital, or company sales. Profitability, in this situation, is a picture of the company's capacity to profit as a type of successful operation. The profitability of the company usually also determines the additional funding of the company. Companies with high levels of profitability commonly desires to
employ retained earnings as a primary financial resource. This is done in order to reduce the company's risk [16].

**Firm Size**

According to Novitasari and Viriany [6], the size of the company is a huge size of a firm that can be measured using total assets, total sales of the company, average sales rate, and average total assets within the company. The company's size is divided into three types: big, moderate, and small. The size of a firm influences the finance decisions that must be taken inside that organization. The larger a corporation is, the more transparent it is in disclosing its performance to outsiders [17]. According to Husna and Wahyudi [18] for large, diversified companies, it's easier to enter the capital markets, receive a better credit rating from commercial banks for debts issued, and pay lower interest rates on their debts.

**Managerial Ownership**

According to Solango and Lumapow [19], managerial ownership refers to the percentage of a company's shareholdings held by directors and commissioners are examples of active decision-makers in management. According to Nuraeni and Imam [13], managerial ownership in a firm is thought to help align the differences in interests that exist between management and shareholders, thereby reducing the tendency for opportunistic conduct. The management with the most stock will have a greater influence in the company's policymaking, including the policy of setting the capital structure [16]. Management's ownership of stock allows them to be more cautious when choosing on the source of the company's funding, because the advantages or risks that may arise will be felt directly by the management.

3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

**The Effect of Profitability on Debt Policy**

Kieso, et al in Novitasari and Viriany [6] defines profitability estimated using Return on Asset (ROA) as a comparison of the company's current year net profit and total asset. According to Nuraeni and Imam [13], companies with a high level of profitability will prioritize their internal sources of funds first, because they have a high rate of return and the profits obtained by the company are also large enough, that the company's internal funds are classified as able to funding the company's operating activities, resulting in a reduced use of external funds with debt. Profitability has increased. This will demonstrate that management inside the firm is effective, because the company will be able to create profits as planned, allowing it to be regarded capable of managing the source of its finances. As a result, the corporation will employ a small amount of debt to fund its operational activities.

H1: Profitability has a negative effect on debt policy

**The Effect of Firm Size on Debt Policy**

According to Naraeni and Imam [13], big companies must have substantial enough assets that may be utilized as collateral in securing sources of cash in the form of debt. Large companies are considered to have less risk compared to smaller companies. If the firm's value in a corporation is high, then the company's usage of capital would be high as well, and the company will prioritize the use of funds with its internal source of funds first, because large companies are assumed to have enough sources of fund especially their internal funds, as a
result of which the usage of external funds in the form of debt will be reduced. Because management will choose to use internal funds because it is easier to use.

H2: Firm size has a negative effect on debt policy

**The Effect of Managerial Ownership on Debt Policy**

According to Angela and Yanti [1], managerial ownership is measured by comparing total management shares to the number of outstanding shares, indicating that management owns a high proportion of the company's current share capital. With managerial ownership, it is expected that the interests of managers and shareholders will be more aligned, so that managers will feel the benefits directly from every decision taken, especially those related to funding decisions with debt. If concluded, if the value of the managerial ownership of the company is higher, it means that the ownership of shares by the manager is increasing. In addition, the manager will also be more careful in making decisions regarding the source of funding of his company, because managers, as shareholders, will feel the benefits and risks that exist with the use of external funds borrowed.

H3: Managerial ownership has a negative effect on debt policy

The research model of this study as presented in Figure 1 as follow:

**Figure 1** The Research Model

4. **RESEARCH METHOD**

This study's population consists of all manufacturing industry enterprises registered on the Indonesia Stock Exchange between 2018 until 2020. Purposive sampling is the sampling technique utilized in this study, with the following sample criteria: (a) Manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) consecutively from 2018 to 2020; (b) Manufacturing companies that present financial statements in Rupiah (IDR) from 2018 to 2020; (c) Manufacturing companies that have positive profits from 2018 to 2020; (d) Manufacturing companies that present managerial ownership information from 2018 to 2020; and (e) Manufacturing companies that present the total of outstanding shares information from 2018 to 2020. Based on the sample criteria, data was obtained for as many as 50 companies, and with three research periods, namely from 2018–2020, data was obtained for as many as 150 panel data and were analyzed using multiple regression analysis. Data processing in this study using Eviews 12 software.
Following is the operationalization of each research variable as presented in Table 1:

**Table 1 The Operationalization of Research Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Proxy</th>
<th>Scale</th>
<th>Adopted From</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Policy</td>
<td>DAR (= \frac{Total \text{ Debt}}{Total \text{ Asset}})</td>
<td>Ratio</td>
<td>Clara &amp; Sudirgo (2018)</td>
</tr>
<tr>
<td>Profitability</td>
<td>ROA (= \frac{Net \text{ Income}}{Total \text{ Asset}})</td>
<td>Ratio</td>
<td>Angela &amp; Yanti (2019)</td>
</tr>
<tr>
<td>Firm Size</td>
<td>SIZE (= \text{Ln(Total Asset)})</td>
<td>Nominal</td>
<td>Novitasari &amp; Viriany(2019)</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>MO (= \frac{Total \text{ Managerial Ownership}}{Total \text{ Outstanding Shares}})</td>
<td>Ratio</td>
<td>Sheisarvian et al., (2015)</td>
</tr>
</tbody>
</table>

The following is the multiple linear regression formula that should be used:

\[
DEBT = c + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{MANOWN} + \epsilon
\]

Note:
- DEBT = Debt Policy;
- C = Constant;
- PROFIT = Profitability;
- SIZE = Firm Size;
- MANOWN = Managerial Ownership;
- \(\epsilon\) = Error

The research method used is a combination of time series data and cross section called panel data. There are 3 models for using panel data: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To choose the most appropriate model, it is necessary to carry out several tests: Chow Test, Hausman Test, and Langrange Multiplier (L-M) Test.

5. RESULTS

In this study, the dependent variable is, namely debt policy which were used as DAR proxies, had a mean value of 0.385826. It might be shown that median debt policy value is 0.382850 and the standard deviation is 0.175437. The highest value (maximum) of the debt policy variable (DAR) is 0.844782, while the smallest value (minimum) is 0.069557. The first independent variable in this study, namely profitability which were used as ROA proxies, had an mean value of 0.079989. The standard deviation is 0.119233, and the median value of profitability is 0.054539, with maximum and minimum profitability values of 1.000000 and...
The second independent variable in this study, namely firm size, indicated by SIZE, had an mean value of 28.13065. The standard deviation is 2.023004, and the median value of firm size is 28.22420. The maximum and minimum firm size values are 32.72561 and 19.85250. The last independent variable in this study, namely managerial ownership, has an average value (mean) of 0.106955. Also managerial ownership had a median value of 0.038194, and the standard deviation is 0.167824, as can be observed. 0.894444 and 0.000001 are the maximum and minimum value of managerial ownership.

The Chow Test result shows Cross-section F has a probability value of 0.0000, which indicates it is less than 0.05, therefore Ho is rejected while Ha is approved. As a result, it can be determined that the Fixed Effect Model is the appropriate model to utilize in this investigation (FEM). The Hausman Test result showing that the cross-section random value obtained has a random probability of 0.0000, which is less than 0.05, therefore Ho is rejected while Ha is approved. Therefore, this study uses the Fixed Effect Model (FEM) as the best model. Based on the two tests that have been carried out, it is possible to conclude that the Fixed Effect Model was adopted for this study. Due to the use of panel data, the classical assumption test used is multicollinearity test.

The multicolinearity test results shows that the coefficient of correlation between independent variables is less than 0.8 for all variables. It is possible to conclude that there is no multicollinearity among independent variables. The results of the F-test shows that the probability value of F-statistic is 0.000000, which means that all independent variables that are treated like independent variables simultaneously affect the dependent variable significantly.

The results of the multiple determinant coefficient test shows that the value of the adjusted R-squared is 0.889468, which means test results show that profitability, firm size, and managerial ownership in regression models have a lot of information to be able to explain the variation of dependent variables in this study, namely debt policy of 88.95%, while the remaining 11.05% can be explained using other independent variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Sig. Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constants</td>
<td>-4.630824</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.058272</td>
<td>0.4887</td>
<td>H1 is rejected</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.177411</td>
<td>0.0000</td>
<td>H2 is accepted</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>0.286274</td>
<td>0.1918</td>
<td>H3 is rejected</td>
</tr>
</tbody>
</table>

DEBT = -4.630824 - 0.058272 β₁PROFIT + 0.177411 β₂SIZE+ 0.286274 β₃MANOWN + ε

Note:
DEBT= Debt Policy ; c= Constant ; PROFIT= Profitability ; SIZE = Firm Size ; MANOWN= Managerial Ownership; ε= Error

According to the t-statistical test findings, the independent variable profitability has a probability value of 0.4887 and a coefficient value of -0.058272, indicating that H1 is
rejected. Profitability has an insignificant and negative effect on debt policy. The independent variable firm size has a probability value of 0.0000 and coefficient value of 0.177411, indicating that H2 is accepted. Firm size has a significant and positive effect on debt policy. The independent variable managerial ownership has a probability value of 0.1918 and coefficient value of 0.286274, which means H3 is rejected. Managerial ownership has an insignificant and positive effect on debt policy.

6. DISCUSSIONS

Based on the results obtained and generated from this study, authors concluded several discussions. The independent variable profitability as measured with net income divided by total assets has an insignificant and negative effect on debt policy. According to the degree of debt used by a corporation is not determined by its profitability. Even if a corporation has a large amount of retained earnings, it will still need debt. This can occur when a firm is conducting a huge project that requires significant cash, and the funds cannot be met only from the company's retained earnings, but additionally require an external source of funding in the form of debt. The results of this study are also in line with Angela and Yanti [1]. But not in line with Novitasari and Viriany [6], Clara and Sudirgo [8], and Lourenço and Oliveira [9].

The second independent variable in this study is firm size as measured with Logarithm natural from total asset, has a significant and positive effect on debt policy. The larger the firm, the simpler it is to secure external sources of financing in the form of loans from third parties. This debt happens because to the firm's stronger reputation or because the company is perceived to be less risky, since the value of assets used as collateral is bigger and the degree of confidence of external parties is higher. The results of this study in line with Novitasari and Viriany [6], and Hasan [10]. But not in line with Narita [11], Muslim and Puspa [12], and Nuraeni and Imam [13].

The last independent variable in this study is managerial ownership as measured with total management shares divided by total outstanding shares, managerial ownership has an insignificant and positive effect on debt policy. This conclusion contradicts the agency theory. Although management owns the company's shares, it has not been able to determine the level of debt use in the company because the proportion of share ownership by management is still quite low compared to other parties, so no matter how much management's share ownership affects the use of funds in the form of debt. The results is in line with Angela and Yanti [1]. But not in line with Sheisarvian, et al. [7], and Hasan [10].

7. CONCLUSIONS

Based on analysis of the data processing and testing that was performed, conclusions can be drawn from the research conducted. In this study selected the best research model used, namely fixed effect model (FEM). First, independent variable profitability has an insignificant and negative effect on debt policy, so H1 is rejected. Second, independent variable firm size has a significant and positive effect on debt policy, so H2 is accepted. And the last, independent variable managerial ownership has an insignificant and positive effect on debt policy, so H3 is rejected.

There are some limitations in this study. First, this study is restricted to data from manufacturing businesses registered on the Indonesia Stock Exchange, so that the discussion
that can be provided is even more constrained. Second, the research period used is limited to only three years, namely from 2018-2020, making the data obtained in this study relative to a short time only. Lastly, the study used only three independent variables, namely profitability, company size, and managerial ownership.

There are also some study ideas on the same issue for the next researcher to explore. First, researchers can broaden the area of their research to include not just manufacturing firms but also real estate companies, food and drinks, and so on. Second, researchers are required to extend the duration of their research so that it is no longer confined to three years. Third, researchers might include other independent factors including asset structure, institutional ownership, sales growth, and company risk.

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