THE EFFECT OF PROFITABILITY, CAPITAL STRUCTURE, ASSET STRUCTURE, AND FIRM AGE ON FIRM VALUE

Serena Beatrice Harsono¹, Liana Susanto*¹

¹Faculty of Economics and Business, Universitas Tarumanagara, Jakarta - Indonesia
*Email: lianas@fe.untar.ac.id

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ABSTRACT

The goal of this study was to gather empirical data on how firm value in manufacturing enterprises is impacted by factors such as profitability, capital structure, asset structure, and firm age. In this study, 89 manufacturing businesses that were listed on the Indonesia Stock Exchange between 2018 and 2020 are used as a sample. The sample selection used purposive sampling method and obtained a sample of 89 companies. The EViews 10 program was used to process the data for this investigation. The findings of this study suggest that firm value is significantly positively influenced by profitability and capital structure. Asset composition has no significant impact on firm value. Firm age has a significant negative effect on firm value. This research is expected to provide benefits for investors by increasing knowledge about company values and is expected to be used as consideration in making investment decisions to visualize company assets so that investors can achieve the expected returns.

Keywords: Profitability, Capital Structure, Asset Structure, Firm Age, Firm Value

1. INTRODUCTION

To survive, a company will try to get as much profit as possible. Which is to get a profit or profit, the company will try as much as it can in utilizing all the resources it has and managing both capital, debt, and assets efficiently and effectively. Through the company's success in utilizing its resources and management, this will benefit the company. Which can affect the continuity and sustainability of the related company. This will also have an impact on the firm's value. The value of this firm will be important since this describes the company's performance, which can determine investors' impression of the company [1].

The firm's value will increase in exact proportion to how the business develops. The stronger the firm's value, the more it will also subtly reflect the value of its assets [2]. When the firm's value is higher, this will also have an impact on the stock's value rising. This is shown by a high rate of investment return to investors. Potential investors, of course, will not invest in companies that have a high risk, but prefer to invest in companies with a low level of risk. The company's rising valuation will also make it simple to draw in investors who are willing to make larger investments. This will ensure that the company's worth and status are tightly correlated [3].

In addition to the increase in the number of investors, technology that is growing rapidly in the era of globalization is also growing rapidly. Through the development of this technology, it indirectly causes competition between companies that is getting tougher and tougher. This implies that the greater the firm's value, the greater the profit of shareholders. The firm's value is able to represent the price that potential investors should anticipate to pay if the firm is sold in the future [4]. Companies also indirectly must always innovate to be able to produce the best quality products and services, manage company finances well and fulfil the desires and satisfaction of their customers.
The value of the company itself is a picture that provides benefits to investors whether the related company can show an increase in wealth while providing maximum benefits from the capital that has been invested [5]. May demonstrate a firm's management team's capacity to oversee operations in a way that will enable the company to generate a healthy level of market value.

Profitability, capital structure, asset structure, and firm age are some of the variables that might affect a firm value. Profitability reflects the capability of the business to turn a profit in carrying out its operational activities with resources owned by the company [6]. The more profit a firm can generate, investors will be informed that the company has promising future potential as a result, so that it is able promise the profits to be obtained and to be distributed through dividends so that it will increase investor interest in investing, which in turn increases the value of the company. According to research by [7], [8], and [9] profitability has positively impacted firm value. However, some research also generated different results that said profitability has negatively impacted firm value written by [10] and profitability does not impact firm value written by [11].

Capital structure is a comparison that demonstrates how much debt the firm has relative to its capital. The company's attempts to allocate capital more efficiently depend on how much of its capital structure is backed by debt [12]. According to research by [8] and [13], capital structure has positively impacted the firm value. Some research also generated different results that said capital structure has negatively impacted firm value written by [14] and capital structure does not impact firm value written by [15].

Asset structure is a ratio that describes the magnitude of the comparison of ownership of fixed assets to total assets which serves to provide information on the amount of costs needed in order to procure assets for the company [16]. The results of the study by [17] and [18] stated that asset structure positively impacts firm value because when the company has stable finances, by increasing the number of investors who invest in the firm, it will demonstrate that the company has a high investment value in its fixed assets and have a significant influence on the increase of the firm’s value. Some research also generated different results that said asset structure has negatively impacted firm value [19] and asset structure does not impact firm value written by [20].

Firm age can be defined as a period that shows how long a company is able to exist, compete, survive, and grow which is calculated from the year the company was founded [21]. Research by [17] states that firm age has impacted firm value positively significant. Some research also generated different results that said that firm age had impacted firm value negatively that have been written by [22], and firm age has no effect on firm value that have been written by [23], [24], and many more.

Based on the results of previous studies that have been described above, there are a gap shown by different results. Therefore, research is carried out again related to what factors can have an influence on company values.
2. LITERATURE STUDY

Agency Theory

Agency theory is a theory that regulates the relationship of management as an agent with shareholders or investors as principals. The investor or principal authorizes the company management or agent to carry out all activities within its limits for making the best decisions according to the joint contract [25]. Through agency theory, it is stated that sometimes agency relationships can lead to conflicts between agents and principals due to different goals and each party wants its goals to be fulfilled. This conflict between the agent and the principal can occur when making decisions related to funding activities, so the solution that can be done is through reducing agency costs by increasing institutional ownership, managerial ownership, using debt and distributing dividends in the company. As a result of this conflict, the principle must pay extra attention to preserve the business's assets so that in the perspective of investors, the firm seems highly valuable, hence increasing the company's value [26].

Signaling Theory

Signaling theory is a theory that demonstrates that the company may provide a message or signal to investors by providing details about how the business is doing. This theory also explains that information related to company goals is an important element that can be used to assist investors in making investment decisions [28]. The company's management will have more clues that can explain how the management of the firm assesses the prospects related to the company's growth compared to external parties of the company so that they can show the quality of the related company through the facilities owned by the company. From the need for external parties for this information from the company's internal parties, therefore the company will give signals to external parties or investors regarding all information held by the company if the company carries out its operational activities to get these investors to make investments in the company.

Trade-Off Theory

Trade-off theory is a theory that explains that companies are trying to optimize the value of the company using debt to a certain level, so that taxes can be utilized by the company. Through this theory, interest payments arise due to external debt funding which becomes a tax deduction so that the burden of debt will be cheaper when compared to shares [29]. This theory shows that funding with debt carried out by companies in large amounts can create interest expenses which have an impact on reducing corporate taxes and causing an increase in company profits. This will be consistent with the company's increasing value. Tax reduction or savings itself becomes a benefit obtained by debt to a certain point which can lead to an increase in stock prices. Therefore, companies that have high profitability will as much as possible to reduce the amount of tax by increasing their debt ratio [27].

Firm Value

Firm Value is described as the asking price that buyers of a firm would be willing to pay [2]. The value of a firm may be defined as the amount of money generated by its investors [25]. Based on the explanations above, the firm's value is the price that investors are willing to pay.
when purchasing company shares based on the investor's assessment of the firm's level of success.

**Profitability**

According to [6], profitability reflects a company's capacity to produce a profit while carrying out its operational activities using resources. Profitability is one of the variables indicating the capability of the business to generate a profit for all stakeholders [7]. Companies will compete to maximize profitability. The value of a corporation increases in direct proportion to its profit margin. The company's high degree of profitability is the result of rising stock prices brought on by a rise in market interest in the company's shares. In line with signalling theory, high profitability will convey to investors that the firm is profitable today and has promising future possibilities. As a result, the price of the company's shares will rise, keeping up with the rise in the company's worth. According to the findings of [7], [8] and [9]'s studies, profitability significantly positive impact a firm's value. The study's hypothesis is as follows, and it is based on the justification provided above:  
Ha1: Profitability positively significant impacts the firm value.

**Capital Structure**

According to [12], Capital structure is a comparison that shows how much debt the company has in relation to its capital. Agency theory may also be used to explain the link between capital structure and business value which the company's management or agents can prioritize their own desires for activities carried out for the sake of the company and shareholders or principals certainly want more profits [30]. An agency conflict may result from this. Debt is one strategy that businesses might use to reduce internal agency conflicts. This debt financing can boost the worth of the firm if the debt is used for business development by the company's management. According to the findings of [8] and [13]'s studies, capital structure significantly impacts a firm's value. The study's hypothesis is as follows, and it is based on the justification provided above:  
Ha2: Capital structure positively significantly impacts the firm value.

**Asset Structure**

According to [16], the asset structure describes the wealth and resources owned by the company that are used to carry out its overall operational activities. The asset structure describes the assets that are the company's resources that are controlled and used to generate profits. When the company has stable finances, this will show that the company is able to invest in its fixed assets in high amounts. In line with signaling theory, this will be a signal to investors and affect the increase in the number of investors who want to invest and in line with the increase in firm value. According to the findings of [17] and [18]'s studies, asset structure significantly positive impact a firm's value. The study's hypothesis is as follows, and it is based on the justification provided above:  
Ha3: Asset structure positively significant impacts the firm value.

**Firm Age**

The age of the company is an illustration of the company's ability to overcome all kinds of problems that may provide challenges to the company’s sustainability and demonstrate how the company can benefit from the environment. And its resources in developing its company
[31]. Companies that have been in operation for a long term show their existence and experience to compete with competitors. According to the signaling theory, a company's age will provide a signal that encourages investors to place more trust in established businesses over those that have only recently opened for business, which will also raise the company's worth. According to the findings of [17]'s studies, firm age significantly positive impact a firm's value. The study's hypothesis is as follows, and it is based on the justification provided above:

**Ha4:** Firm age positively significant impacts the firm value.

### 3. METHODOLOGY

In this study, the research design used was a descriptive research design using quantitative research methods. This study uses one dependent variable which firm value and four independent variables consist of profitability, capital structure, asset structure, and firm value. The firm's official website and website www.idx.co.id provided secondary data for this study. The data sample selection technique used a non-probability sampling technique where the sample selection was carried out by purposive sampling method. Several criteria are applied to this technique 1) Manufacturing companies that are consecutively listed on the Indonesia Stock Exchange during 2018 - 2020, 2) Manufacturing companies that present audited financial statements ending on December 31, 3) Manufacturing companies that did not suffer losses.

Investors' opinions about a company's ability to run and grow the business in a way that benefits the investors are expressed as firm value [32]. Price to Book Value is used in this study as a proxy for firm value (PBV). [8] State that the PBV formula is as follows, by comparing market value per share and book value per share:

\[
PBV = \frac{Market\ Value\ Per\ Share}{Book\ Value\ Per\ Share}
\]

Profitability is a measure of a firm's capacity to earn profits. [31]. Profitability in this study is measured by the return to equity ratio which describes the amount of profit that can be generated by the company using its own capital.

\[
ROA = \frac{Net\ Income}{Total\ Assets}
\]

Capital structure refers to the decision that management must make regarding the financing of a company's operations through debt and the capacity of the company to repay the debt [33]. Debt to Equity Ratio (DER) is used in this study as a proxy for capital structure. [15] State that the DER formula is as follows, by comparing total debt and total equity:

\[
DER = \frac{Total\ Debt}{Total\ Equity}
\]

Asset structure is an asset allocation for a corporation that is influenced by a ratio [34]. [35] State that the asset structure formula is as follows, by comparing fixed asset and total asset:

\[
AS = \frac{Fixed\ Asset}{Total\ Asset}
\]
The firm’s age determines its ability to endure and compete in the field of business [23]. [17] State that the firm age formula is as follows, by subtracting research year and company founding year.

\[ FA = \text{Research Year} - \text{Company Founding Year} \]

In this study, cross sectional data and time series data are combined to form panel data. The Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model are the three methods to the panel data model estimate technique (REM). The Chow test and Hausman test were used to assess the data to find the optimum model for estimating panel data. Multiple linear regression was used in this study's data analysis.

The descriptive statistical test, regression analysis test, coefficient of determination test, F test, and t test are all used in this study's data analysis. In this investigation, the regression model equation is as follows:

\[ PBV_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 DER_{it} + \beta_3 AS_{it} + \beta_4 FA_{it} + \epsilon \]

Description:
- \( PBV \): Firm value
- \( \alpha \): Constant
- \( \beta_1, \beta_2, \beta_3, \beta_4 \): Regression coefficient
- \( ROA \): Profitability
- \( DER \): Capital Structure
- \( AS \): Asset structure
- \( FA \): Firm Age
- \( i \): I-th company
- \( t \): T-th period
- \( \epsilon \): Error

4. RESULTS

Descriptive statistical testing is a test that may be performed to acquire summary information about all corporate data utilized in research. Table 1 displays the results of the descriptive statistical tests' statistical test.

<table>
<thead>
<tr>
<th>Description</th>
<th>PBV</th>
<th>ROA</th>
<th>DER</th>
<th>AS</th>
<th>FA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.075263</td>
<td>0.079690</td>
<td>0.842101</td>
<td>0.385701</td>
<td>43.17603</td>
</tr>
<tr>
<td>Median</td>
<td>1.283795</td>
<td>0.054376</td>
<td>0.642583</td>
<td>0.399547</td>
<td>42.00000</td>
</tr>
<tr>
<td>Maximum</td>
<td>27.97701</td>
<td>0.920997</td>
<td>3.609272</td>
<td>0.848698</td>
<td>107.00000</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.003868</td>
<td>8.07E-05</td>
<td>0.000885</td>
<td>0.000493</td>
<td>10.00000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>4.620341</td>
<td>0.095443</td>
<td>0.704415</td>
<td>0.205742</td>
<td>17.50840</td>
</tr>
<tr>
<td>Observations</td>
<td>267</td>
<td>267</td>
<td>267</td>
<td>267</td>
<td>267</td>
</tr>
</tbody>
</table>

Source: EViews version 10

Considering the information in Table 1, the mean value of the firm value variable (PBV) is 3.075263, the median is 1.283795, and the standard deviation is 4.620341. The highest value
is 27.97701 and the lowest value is 0.00386. The average value of the ROA variable is 0.079690. Median 0.054376, standard deviation 0.095443. The highest result was 0.920997 and the lowest was 0.000807. The mean capital structure variable (DER) is 0.842111, the median is 0.642583, the standard deviation is 0.704415, the highest value is 3.609272 and the lowest value is 0.000885. The asset structure has a mean of 0.385701, a median of 9950, and a standard deviation of 0.205742, the highest value of 0.848698 and the lowest value of 0.000493. The mean variable age of the firm is 43,17603, the median is 42,00000, the standard deviation is 17,50840, the highest value is 107,000 and the lowest value is 10,00000. The panel data model used to estimate the panel data in this study is the Fixed Effect Model (FEM). The results of data analysis in this study are shown in table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>13.56418</td>
<td>4.817955</td>
<td>2.815341</td>
<td>0.0054</td>
</tr>
<tr>
<td>ROA</td>
<td>3.785662</td>
<td>1.777578</td>
<td>2.129675</td>
<td>0.0346</td>
</tr>
<tr>
<td>DER</td>
<td>0.792310</td>
<td>0.365186</td>
<td>2.169608</td>
<td>0.0314</td>
</tr>
<tr>
<td>AS</td>
<td>-0.279622</td>
<td>1.542043</td>
<td>-0.181332</td>
<td>0.8563</td>
</tr>
<tr>
<td>FA</td>
<td>-0.262876</td>
<td>0.112102</td>
<td>-2.344970</td>
<td>0.0202</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td></td>
<td></td>
<td>0.925193</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.885639</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob (F-statistics)</td>
<td></td>
<td></td>
<td></td>
<td>0.000000</td>
</tr>
</tbody>
</table>

Source: EViews version 10

By the results of multiple regression analysis from the table above, it can be concluded that the probability value (p-value) of profitability variable (ROA) is 0.0346. Profitability, it is found, has a significant positive effect on the firm’s value. As a result, it may be argued that H1 is acceptable. The probability value (p-value) of the capital structure variable (DER) is 0.0314 concluded that firm value is positive significantly influenced by capital structure. As a result, it may be argued that H2 is acceptable. The probability value (p-value) of the asset structure variable (SA) is 0.8563. It is concluded that asset structure has no impact on firm value. As a result, it is possible to conclude that Ha3 is rejected. With a p-value of 0.0202 for the firm age variable (FA), it was found that the firm age variable had a significant negative effect on the firm value variable. As a result, it is possible to conclude that Ha4 is rejected.

The value of the coefficient of determination (Adjusted R²) is 0.885639. And it is, the independent variables profitability (ROA), capital structure (DER), asset structure (SA), and firm age (UP) can explain 88.5639% of the variance in the dependent variable firm value (PBV), whereas the remaining 11.4361% is explained by factors other than those explored in this study. The value of the firm.

5. DISCUSSIONS

Profitability has a positive and significant effect on company value Profitability refers to a company’s capacity to produce a profit or net income from its operations throughout the
reporting period. The amount of money that investors are ready to pay for a firm is referred to as its equity. The growth in the firm's profitability indicates that the company is doing well and that its value will rise in the future. The higher the firm's value, the better it will notify investors about the company's status and the more favourable investors' attitude toward the company. This might raise the firm's value since investors are more interested in the investment. According to signaling theory, great profitability communicates to investors that the business is lucrative today and has excellent prospects. As a result of this research, it is possible to conclude that Ha1 is accepted. This finding is backed by research [7], [8], [9] which show that profitability has a positive and significant impact on firm value. Moreover, it contradicts the findings of [10], which state that profitability has a significant negative effect on the company's value. Furthermore, the results of this research contradict the findings of [11] that profitability has no significant effect on firm value.

Following the study, it was discovered that capital structure had a positive significant effect on the firm value variable. The debt ratio of a company is represented by its capital structure. The capital structure of a firm is a combination of debt and equity in its long-term financial structure. Capital structure is particularly significant for a company since it immediately influences the firm's financial condition and, ultimately, the company's worth. The value of the company reflects the investor's perception of the level of success of the company in running its business relative to its share price. When the use of corporate debt increases, it means that the company obtains additional capital which can be used by the company to expand or expand its business. This leads to more profit that can be passed on to investors. By optimizing the capital structure, the company's share price can be maximized. The company's ability to manage its funds optimally can maximize the value of the company. This can attract more investors to invest in the company and increase the value of the company. Agency theory may also be used to explain the relationship between capital structure and corporate value, since the firm's management or agents might prioritize their own wants for actions performed for the purpose of the company, whereas shareholders or principals undoubtedly want more profits. As a result of this research, it is possible to conclude that Ha2 is acceptable. This finding is backed by research [8] and [13] which show that capital structure has a positive and significant impact on firm value. Moreover, it contradicts the findings of [14], which state that capital structure has a significant negative effect on the company's value. Furthermore, the results of this research contradict the findings of [15] that capital structure has no significant effect on firm value.

Asset structure has no significant effect on firm value. This indicates that the amount of asset structure has no effect on the business's worth. Assets and total assets that can be used to determine the amount distributed to each by the fund Companies with stable finances should make large, fixed asset investments to maximize overall profits. With such a huge quantity of fixed assets, the corporation may obtain significant amounts of debt because it can be used as collateral, increasing debt acquisitions easier and earning more trust from investors to invest their capital. However, it is obvious from this analysis that each company's investment allocation is different. Where there are companies with much more current assets than fixed assets, and vice versa, where the number of fixed assets exceeds the amount of current assets. Although the company's finances seem to be stable, the company's investment in fixed assets is also high, or there is a decrease in working capital caused by an increase in the structure of assets owned by the company, if the company has not been able to utilize the asset structure properly to obtain maximum profit. Provide a significant influence on the firm's value since investors will dismiss aspects of the asset structure in consideration of other variables when investing in the company. If it is aligned with signalling theory, the asset structure is unable
to offer investors with signals or information intermediaries. As a result of this research, it is possible to conclude that Ha3 is rejected. This study's findings are supported by research from [20], which found that asset structure had no effect on company value. This result, however, differs from the findings of [17] and [18], which indicated that asset structure has a positive and significant effect on firm value. The findings of this study also contradict the results of [19] research, which found that asset structure had a negative and significant effect on firm value.

Firm age has a negative and significant effect on company value. The age of a firm refers to its ability to survive and compete in the business world. However, as a corporation grows older, it becomes less able to update previous knowledge, making it less capable to keep up with current innovations. Investors recognize that new companies will be more innovative in running their companies than companies that have been around for a long time. This will increase investor trust in investing in newly founded companies because it is considered that new companies can produce more profits than companies that have been in operating for a long period. As a result, the longer the company's age, the lower its value. If it is related to signal theory, the company's age has a negative impact on investors. Because the longer a firm has been existence, the more mistrust investors will have. As a result of this research, it is possible to conclude that Ha4 is rejected. The results of this research are like the results of [22], which show that firm age has a negative and significant effect on firm value. However, the results of this research contradict the results of [17], which concluded that firm age has a positive and significant effect on firm value. Furthermore, the results of this research contradict the findings of [23] and [24], which showed that there is no significant relationship between company age and firm value.

6. CONCLUSIONS

Profitability has a significant positive impact on the value of a firm. The greater the amount of profitability, the more profit investors receive. It also indicates that its company's prospects seem excellent. Capital structure has a significant positive impact on the value of a firm. Capital structure has no significant effect on company value. The higher the capital structure value, the more the company's ability to optimize debt financing. This will increase the amount of profit earned by investors. Asset structure has no significant effect on the value of the company because this indicates that the amount of asset structure has no effect on the value of the firm. Although the firm has a large investment in fixed assets, if the company has not been able to efficiently utilize the asset structure, this will not damage the company's value since investors prefer to examine other factors when investing in the company. Firm age has a significant negative effect on company value. The longer a firm operates, the less capable it is of keeping up with latest changes. As a conclusion, the longer the company's age, the lower its value. In the process of compiling this research, the researcher found limitations that can be used as considerations for further research. Limitations in this study include a. The independent variables that explain the capital structure in this study are only limited to four variables, namely profitability, capital structure, asset structure, and company age, b. The research period used is limited, namely from 2018-2020, and c. The sample used in this study is limited, which only uses manufacturing sector companies listed on the Indonesia Stock Exchange. This research is expected to be able to provide additional information and references as consideration for further research that discusses company value, providing additional information that can be used by company management in understanding the factors that affect company value, especially profitability, capital structure, and company age. Management can produce more optimal results and ultimately be useful in
increasing the value of the company, as well as being able to increase investors' knowledge about the value of the company and can be taken into consideration in making investment decisions so that investors can get returns that are in accordance with their expectations.

REFERENCES


