Determinants of Company Value: Study on Pharmaceutical Companies on the Indonesia Stock Exchange

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ABSTRACT

Company value is very important in investment transactions, and company management must understand the determinants to achieve company goals. The main operational goal of the company is to achieve the maximization of expected profits. Profit maximization is the company's only rational policy. This study aims to determine and examine the determinants of firm value: growth, firm size and financial performance. The research sample consisted of 9 pharmaceutical companies listed on the Indonesia Stock Exchange. Data is collected through financial statement documents for 4 years, 2018-2021. The number of data observed is 36 observational data. Data analysis used multiple regression analysis. The results showed that company growth and firm size positively and insignificantly affected firm value. Meanwhile, financial performance has a significant positive effect on firm value. The implications of the research results are theoretically as developing insight related to investment and portfolio management, then practically as information for investors in making investments.

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1. Introduction

Value creation of corporate sector is an interesting research topic nowadays. This is due to the important role of corporate values in determining the company's processes in the future. The main operational goal of the company is to achieve the maximization of expected profits. Profit maximization is the company's only rational policy (Kamrad et al., 2021). Various studies were conducted to determine the right approach to profit maximization (Lai et al., 2022). Financial information can help investors make investment decisions (Guo, 2023). Company value is an important consideration in investment decisions (Katsanis et al., 2023). Because the value of the company is a picture of the condition of shareholders' wealth (Yoon & Kim, 2023). The high corporate value will be followed by high shareholder prosperity.

The company's value can be measured from the level of the stock price that indicates the company's future prospects (Hussein & Nounou, 2022; López-Tenorio & Romero, 2020). Moreover, the company’s value can serve as an indicator of the company's overall health and performance. Company value provides information about the comparison of the company’s expected performance with the performance of the company valued by the market (D’ Costa & Habib, 2024).
PBV (Price to Book Value) is one of the proxies to calculate the company's value (Huang et al., 2023; Yeh & Liu, 2023). A high PBV indicates a good company performance, a good PBV value is greater than 1, which indicates that the stock market value is greater than the book value (Digdowiseiso, 2023; Vinocur et al., 2023). PBV of the pharmaceutical sub-sector in Indonesia market fluctuates where three companies have a PBV value of less than 1, namely:

<table>
<thead>
<tr>
<th>No</th>
<th>Corporate Code</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PYFA</td>
<td>0,89</td>
<td>0,85</td>
<td>0,84</td>
<td>3,30</td>
</tr>
<tr>
<td>2</td>
<td>SCPI</td>
<td>0,29</td>
<td>0,20</td>
<td>0,16</td>
<td>0,12</td>
</tr>
<tr>
<td>3</td>
<td>TSPC</td>
<td>1,59</td>
<td>1,15</td>
<td>1,08</td>
<td>0,98</td>
</tr>
</tbody>
</table>

Source: Data model for 2022

The data in Table 1 indicates that some companies in the research sample have poor performance, so their company value is still relatively low. Company managers must understand the factors that affect firm value to formulate the right strategy to increase firm value (Tang & Chang, 2024), including management credibility (Gietzmann & Ostaszewski, 2023). Company growth is one of the aspects related to firm value (Yadav et al., 2022). Company growth is the result of good risk management (Marcelino-sadaba, 2021) in an innovative and competitive environment (Luo et al., 2019; Salnikova et al., 2019; Si et al., 2020; Tojeiro-Rivero et al., 2019). Company growth can be measured from the total assets owned (Bolek et al., 2021). Some empirical studies show inconsistent results. Research of (Ramdhonah et al., 2022) shows that company growth positively affects firm value. Research conducted by (Sembiring & Trisnawati, 2019) shows that company growth affects firm value. Previous research shows that inflation and company growth do not affect firm value. And research conducted by (Dang et al., 2019) shows that company growth does not affect firm value. Likewise, research (Syaifulhaq et al., 2020) shows that company growth has a positive and insignificant effect on firm value.

Firm size is related to productivity (Akerman, 2024; Delli Gatti et al., 2024). Company size can also affect firm value (Bashir, 2023; Liang et al., 2023) because the larger the company, the easier it will be for the company to obtain funding sources that can be utilized to achieve company goals. A company with a large size indicates that investors would have a positive response and the company value increases. (Ahmad et al., 2023; Cheliatsidou et al., 2021). Research conducted by Hapsoro & Falih (2020) that company size has a positive effect on firm value, while research shows that company size has a positive effect on firm value Hirdinis, (2019) shows that firm size has a negative effect on firm value.

Financial performance is another factor that affects firm value. Financial performance can be derived from intangible and tangible assets (Niyas & Kavida, 2022). Financial performance plays an important role in increasing company value because it will provide investors with information that the company is in healthy and prospective condition for the future of its investment (Davies et al., 2023). The higher the company’s financial performance, the better the prospect of investing in the company in the future, and this condition will impact increasing the company’s value (Nurhayati et al., 2021).

**Signaling Theory**

Signalling theory is used to clarify information asymmetry in the market. Signalling explains why someone is interested in something (Spence, 2002). Signalling theory aims to influence external parties in decision-making related to the party giving the signal (Al-Adwan et al., 2022; Kuswati et al., 2022). Signalling theory is useful for understanding the reaction of external parties to information asymmetry between companies and stakeholders (Kotha et al., 2018; Wang & Ma, 2023). Signalling theory suggests that signals are observable alterable attributes that individuals
and organizations can use to communicate and reduce information asymmetries (Filieri et al., 2023).

Signal theory refers to the process of information transfer from informed to less informed parties. For example, information flows from merchants to consumers. The essence of the signal theory is that the signalling company, in this case, an internal party (for example, executives or managers), obtains information about the individual, product or organization that is not available to outsiders. This information can be positive and negative, which outsiders find very useful. (Connelly et al., 2011). According to signal theory, investors are the ones who expect signals. Information on financial statements is one means of signalling, where companies will release more information to signal to investors, to show that they are better than other companies in the market to attract investment and improve their reputation (Dang et al., 2019). A firm's value information is a signal for investors or other parties in making investments.

**Firm’s Value**

Firm value is the investor’s perception of the manager’s success in managing the company’s resources (Fabrizi et al., 2023; Tanyeri Günsür & Alp, 2023). Firm value is an economic measure that reflects the market value of a business, which can be measured by following stock price fluctuations in the secondary market (Olalere et al., 2021). If the share price rises, then the company’s value increases (Zhang et al., 2021). Shares should trade higher to gain greater firm value (Chia et al., 2020). The public has better confidence in companies whose share value increases and investors are willing to pay more in the hope of high returns (Smith, 2010; Titisari et al., 2019). A higher share price also makes the value of the company higher. Firm value is assessed with the price-to-book value (PBV) proxy with the following formula (Bahraini et al., 2021):

\[
Price to Book Value (PBV) = \frac{Share\ price}{Book\ value}
\]

Firm value is an assessment of price-to-book value (PBV), the ratio between the market price of shares and the book value of the company’s shares. Based on this PBV ratio, the company’s ability to create value relative to the amount of capital invested can be assessed.

**Firm Growth**

Company growth is a change (either a decrease or an increase) in the total assets owned by the company (Alkhyyoon et al., 2023; Pur et al., 2023). Asset growth is measured by the proportion of changes in assets by comparing the increase or decrease in total assets of the company, the formula is as follows:

\[
Assets\ Growth = \frac{Total\ Asset\ (t) - Total\ Asset\ (t - 1)}{Total\ Asset\ (t - 1)}
\]

Some empirical studies show inconsistent results on the relationship between firm growth and firm value. Research of Ramdhonah et al., (2022), and Sembiring & Trisnawati, (2019) shows that company growth affects firm value. In contrast, Dang et al., (2019) show that firm growth has no significant effect on firm value. Thus, the hypothesis is as follows:

**H1 : Company growth has a significant effect on firm value**

**Firm Size**

Firm size describes the size of the company which can be expressed by total assets or total sales (Iswajuni et al., 2018; Yadav et al., 2022). Firm size is one of the factors that investors consider when investing (Hapsoro & Falih, 2020). Firm size is grouped into three categories: large, medium-sized, and small (Ha & Minh, 2018). Larger companies are considered highly sensitive and have
greater wealth transfer capabilities than smaller ones. Firm size is measured using a proxy Logaritma Natural (Ln) of the total asset (Iswajuni et al., 2018), the formula is as follow:

\[ \text{Size (Firm Size)} = \text{Ln (Total Aset)} \]

Some empirical studies show that there are contradictory results between the relationship between firm size and firm value. Research of (Dang et al., 2019) and (Hapsoro & Falih, 2020) show that firm size has a positive effect on firm value, while research of (Hirdinis, 2019) shows that company size has a negative effect on firm value. Thus the hypothesis is as follows:

**H2 : Firm size has a significant effect on firm value**

**Financial Performance**

Financial performance is an analysis to study the level of which the company implements financial principles properly (Fahmi, 2014). Financial performance shows the effectiveness and efficiency of an organization in achieving its goals (Diah Wulandari & Kushindrajati Aprilia, 2023). Improving financial performance is a requirement for a company to attract investors (Suhadak et al., 2019). Financial performance is reflected in the company's financial statements. Financial statements result from accounting activities, summarising business transaction data useful for decision-making (Pura, 2019). Investors or managers use financial reports to make investment decisions. Financial performance plays an important role in increasing company value because it provides investors with information regarding the health of the company and its prospects for future investment.

The analytical technique used to measure financial performance is the profitability ratio (i.e. net profit margin, \( \text{NPM} \)). Profit margin is an analysis used to determine the efficiency of a company, which indicates the size of operating profit with sales. The NPM formula is as follows:

\[ \text{NPM} = \frac{\text{Net Profit After Tax}}{\text{Sales}} \]

Net profit is the net result of the company's performance over a period of time. Net profit is obtained by subtracting profit before income tax with income tax (Kieso et al., 2017).

The higher the company's financial performance, the better the prospect of investing in the company in the future, and this condition will impact increasing the company's value (Nurhayati et al., 2021). Previous research shows that financial performance affects firm value. Thus, the hypothesis is as follows:

**H3: Financial performance has a significant effect on firm value**

**Conceptual Framework**

![Figure 1: Conceptual Framework](image)
2. Methods
The research sample consisted of 9 manufacturing companies in the pharmaceutical company sub-sector listed on the Indonesia Stock Exchange. Data was collected through financial report documents for 4 years, namely 2018 - 2021. Thus, the amount of data observed is 36 observation data.

Variables are measured using the following proxies: (1) Firm value is measured using the Price to Book Value proxy (PBV), (2) Assets Growth measures company growth, (3) company size is measured by using the Natural Logarithm (Ln) proxy of total assets, and (4) financial performance using the Net Profit Margin proxy. The research problem is answered by testing the following equation:

\[ \text{FIRM VALUE} = \alpha + \beta_1 \text{GROWTH} + \beta_2 \text{SIZE} + \beta_3 \text{PERFORMACE} + \varepsilon \]

3. Results
This study used multiple regression analysis to examine the effect of growth, firm size and financial performance on firm value. The test results are presented in the table.2:

<table>
<thead>
<tr>
<th>Description</th>
<th>Growth</th>
<th>Size</th>
<th>Performance</th>
<th>Firm Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0,13</td>
<td>28,59</td>
<td>0,09</td>
<td>2,64</td>
</tr>
<tr>
<td>Standard Deviasi</td>
<td>0,20</td>
<td>1,37</td>
<td>0,06</td>
<td>1,95</td>
</tr>
<tr>
<td>Coefficients</td>
<td>2,214</td>
<td>0,283</td>
<td>17,647</td>
<td>-</td>
</tr>
<tr>
<td>t-Statistic</td>
<td>1,688</td>
<td>1,472</td>
<td>4,373</td>
<td>-</td>
</tr>
<tr>
<td>Prob (sig-t)</td>
<td>0,101</td>
<td>0,151</td>
<td>0,000</td>
<td>-</td>
</tr>
<tr>
<td>R</td>
<td></td>
<td></td>
<td>0,672</td>
<td></td>
</tr>
<tr>
<td>R^2</td>
<td></td>
<td></td>
<td>0,452</td>
<td></td>
</tr>
<tr>
<td>Adj.R^2</td>
<td></td>
<td></td>
<td>0,401</td>
<td></td>
</tr>
<tr>
<td>F-statistik</td>
<td></td>
<td></td>
<td>8,798</td>
<td></td>
</tr>
<tr>
<td>Prob (sig –F)</td>
<td></td>
<td></td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed in 2022

The data in the table.2 shows that the average mean value for the company size variable (size), financial performance (performance) and firm value (firm value) is greater than the standard deviation, meaning that the distribution of data can be said to be good. The company growth variable (growth) has an average mean value smaller than the standard deviation, so it can be said that the data distribution is not good. The coefficient regression value of growth and company size is positive, with a probability value greater than 0.05. This indicates that company growth and size have a positive and insignificant effect on firm value. Meanwhile, financial performance has a positive coefficient regression value and a probability value smaller than 0.05. Thus, financial performance has a significant positive effect on firm value. Furthermore, the variation in changes in company growth, company size and financial performance in influencing firm value is 40.1%, it can be seen from the Adjusted R Square value of 0.401. For testing the feasibility of the model (model fit) can be seen from the statistical F value of 8.798 with a significant probability value at a value of 0.000. This value is smaller than the value of 0.050, so it can be said that the model used in this study is fit and suitable for use.

4. Discussion
H1: Company growth has a significant effect on firm value
The t-test results show that company growth has an insignificant effect on firm value. Hal ini berarti meningkatnya pertumbuhan perusahaan tidak berdampak pada meningkatnya nilai perusahaan. Dengan demikian hipotesis pertama (H1) ditolak. There is no effect of company growth on firm value due to the high value of company growth causing higher funds needed, so the management of a growing company requires large funds for its operations. Company funds are more focused on supporting the company’s growth rather than its shareholders’ welfare (Suzulia et al., 2020). Therefore, investors have more confidence in established companies than in emerging companies. This explains that even though the company has higher growth, it has no significant effect on firm value. The study results align with research conducted by (Syaifulhaq et al., 2020) that company growth has a positive and insignificant effect on firm value.

**H2 : Firm size has a significant effect on firm value**

The t-test results also show that firm size significantly and positively affects firm value. This indicates that increasing firm size does not significantly impact firm value. Thus the second hypothesis is rejected. Firm size is one measure of a company's performance. The size of the firm can be seen from the total assets. Companies with more significant total assets require larger funds for their operational activities, and companies that require larger funds tend to have larger debts, so this does not maximize company value. This study’s results align with research conducted by (Margono & Gantino, 2021) that company size has no significant effect on firm value.

**H3: Financial performance has a significant effect on firm value**

The t-test results for financial performance are different from growth and firm size, where it is known that financial performance has a significant positive effect on firm value. So the third hypothesis is accepted. The increasing financial performance will increase the value of the company. Financial performance plays an important role in increasing company value because it will provide information to investors as an indication that the company is in healthy and prospective condition for the future of its investment. According to (Connelly et al., 2011) The essence of signalling theory is that managers will provide internal information to outsiders. The information in the form of financial performance is useful for external parties (such as investors) for investment decisions (Pura, 2021). The higher the company's financial performance, the better the prospect of investing in the company in the future, and this condition will impact increasing the company’s value (Nurhayati et al., 2021).

5. **Conclusion**

Firm value is an important element in investment because it indicates the prosperity and welfare of shareholders. So this study aims to examine the determinants of firm value. The results showed that company growth and firm size positively and insignificantly affected firm value. Meanwhile, financial performance has a significant positive effect on firm value. This research provides theoretical implications in developing investment and portfolio management insights. Then, it is useful as information material for investors to make investments. The study’s limitations relate to the lack of sample size and the amount of data observed, where the sample size is only nine pharmaceutical companies, and the data observed is only within four years. So that future research can increase the number of samples and data by expanding other company sectors and increasing the number of years of data observation.

6. **References**


