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Abstract

This study was designed to assess how the current ratio, debt to equity ratio, and net profit margin affect the stock prices of pharmaceutical firms listed on the Indonesian stock exchange from 2020 to 2022. Seven companies were chosen using purposive sampling for this analysis. The study was based on secondary data, such as the firms’ annual financial reports and stock prices. A multiple linear regression approach was used for the analysis. It was found that the current ratio and net profit margin have a significant effect on stock prices individually, but the debt to equity ratio does not. When considered together, however, the current ratio, debt to equity ratio, and net profit margin do have a significant combined effect on stock prices.

Keywords: Current Ratio, Debt to Equity Ratio, Net Profit Margin, Stock Price.

A. INTRODUCTION

The commercial sector in Indonesia has experienced rapid growth in recent years, largely driven by technological advancements. Companies in the current era of globalization must enhance their productivity to adapt, avoid bankruptcy, and emerge as winners in intense competition. One proactive step to address these possibilities is securing additional financial resources. There are various methods for obtaining additional funds, and one approach is through the sale of shares on the capital market. The Indonesia Stock Exchange (BEI) is the official capital market in Indonesia that offers a wide range of financial products. Stocks are widely known financial products and are commonly traded on the capital market, making them a popular investment choice. Investors allocating their funds to stocks have the potential to gain profits in the form of capital gains or high dividends. However, these high returns come with a significant level of risk. Therefore, investors seeking to invest in stocks need diverse information as valuable references for decision-making. Stock prices are a primary focus area for investors, serving as a benchmark for success and reflecting a company’s value (Lumintasari & Nursiam, 2022). Stock prices can fluctuate constantly, showing both upward and downward movements. Overall financial performance and conditions significantly impact stock price formation. An analysis of a company’s financial performance can indicate which companies can achieve maximum profits (Istichomah & Utiyati, 2022). Various factors
can influence changes in financial ratios, including liquidity, solvency, and profitability.

Liquidity ratios play a vital role in determining a company’s financial stability and are closely linked to its stock price. The current ratio, a key metric for assessing liquidity, evaluates a company’s capability to cover its short-term debts with its current assets. A robust current ratio is indicative of efficient profit generation from assets, which can lead to a rise in the company’s stock price per share (Indriawati & Mursidah, 2020).

On the other hand, solvency ratios, also referred to as leverage ratios, are essential for both management and investors as they shed light on the risk level associated with a company’s capital structure (Evanjeline & Suwitho, 2021). The debt-to-equity ratio is a critical metric for assessing solvency, analyzing the debt proportion relative to the company’s equity. This ratio is aimed at determining the degree to which debt is supported by the company’s capital (Thian, 2021). A higher debt-to-equity ratio suggests a greater reliance on debt compared to equity, potentially impairing financial performance and escalating risks for investors.

Profitability ratios are indicators for evaluating managerial performance effectiveness. Profitability ratios can be calculated using the net profit margin. The net profit margin is a financial ratio utilized to quantify the percentage of a company’s net profit derived from its sales activities on a monthly or yearly basis (Denik & Yahya, 2020). A high net profit margin indicates that the company can effectively utilize its resources, thereby increasing investor confidence in allocating capital to the company.

The pharmaceutical sector plays a crucial role in supporting Indonesia’s economy, especially in the field of health, as it is closely related to the accessibility of medications. According to Kemenperin.go.id, if there is a decline in public health, this industry is expected to be more resilient compared to other sectors. This is due to the fact that even in times of economic difficulty, the demand for medications will always exist.

The Covid-19 pandemic serves as an illustrative example of an unexpected phenomenon that has driven collective recognition of the importance of medications. The pharmaceutical industry is one of the most vibrant sectors during the pandemic, and its prospects are expected to continue growing in the years following, even as we enter the era of the new normal. This pandemic has had a significant impact on various industries, prompting the pharmaceutical and medical equipment sectors to respond by increasing their production capacities. The competition surrounding the development of the Covid-19 vaccine has acted as a catalyst for Indonesia to allocate additional financial resources to health research initiatives and the acquisition of vitamins, supplements, and medications aimed at enhancing immune responses (Indonesia.go.id).

Certainly, the successful implementation of these efforts requires substantial financial resources, a requirement that can be met not only by the internal entities of a company but also through the involvement of other funding sources. As a consequence, the pharmaceutical industry is compelled to continue implementing
various strategies and regulations to facilitate its progress. One such strategy is increasing the allocation of funds towards stocks by attracting investors to acquire shares in the company. However, the stock prices of the pharmaceutical subsector have been observed to undergo successive fluctuations. The volatility in stock prices occurring at any given time will influence investor interest in investing in stocks in the pharmaceutical subsector. Moreover, this allows investors to face risks that impact the prospects of potential profits or losses that may arise without knowledge of factors influencing stock price fluctuations in the pharmaceutical subsector.

B. LITERATURE REVIEW

1. Agency Theory
   Agency theory elucidates the contractual relationship between the principal, typically the owner or shareholder of a company, and the management of the company, acting as the (agent), where managers are delegated decision-making power and ultimately are accountable to the principal (Ridan Muhtadi et al., 2023).

2. Signalling Theory
   Signals refer to actions taken by a company with the aim of providing insight to investors about the perceived prospects of the company as perceived by its management. The signals sent are related to the actions taken by management to achieve goals set by the owner (Brigham dan Houston, 2020).

3. Capital Market
   The capital market serves as a platform where individuals or entities with surplus funds interact with those in need of funds. This interaction primarily occurs through the buying and selling of stocks, securities, or other tradable financial instruments. The proceeds from these transactions are then used as a means of financing for companies. The primary goal of investing in the capital market is as a tool for fund owners to utilize their resources with the hope of generating profits, such as dividends or capital gains (Eko Sudarmanto, 2021).

4. Stocks
   Samsurijal (2022) asserts that stocks are widely favored by investors as a prominent capital market asset due to their ability to generate attractive returns. Stocks are valid documents that explicitly provide information about the nominal value, company name, and further rights and obligations, all of which are well-explained to each shareholder.

5. Stock Prices
   Brigham & Houston (2020) assert that stock prices are a direct reflection of shareholder wealth, emphasizing that the objective of maximizing shareholder wealth is equivalent to optimizing the company’s stock price. The value of a stock at any specific time hinges on the future cash flows that investors anticipate, indicating that
Stock prices are influenced by the projected financial performance and profitability of the company.

6. Financial Reports
   Financial reports serve as a form of documentation offering a comprehensive overview of a company’s financial status. The collection of this information serves as a means to depict and analyze the financial performance of the company (Wastam, 2018).

7. Financial Ratios
   Financial ratios are a method used to examine financial statements by juxtaposing one account with another in the report. This comparative analysis can be performed among accounts presented in both the balance sheet and the income statement (Suwarwani, 2022).

8. Current Ratio
   Kasmir (2021) identifies the current ratio as a key liquidity metric, illustrating a company’s capacity to meet its short-term financial liabilities. The current ratio is particularly important for evaluating a firm’s immediate financial health. In addition to the current ratio, other important evaluation measures include:

9. Debt to Equity Ratio
   This ratio, as described by Irham (2020), measures the extent to which a company’s debt exceeds its equity. Hartono (2018) further explains that the Debt to Equity Ratio shows the amount of equity that is being used as collateral against debts. Kasmir (2021) provides the formula for calculating this ratio, which involves dividing the company’s total liabilities by its shareholders’ equity.

10. Net Profit Margin
    As per Kasmir (2021), the net profit margin is a ratio employed to gauge the profit margin on sales. This ratio expresses after-tax income or net sales as a percentage. The formula used to calculate the net profit margin is:

\[
Net \ Profit \ Margin = \frac{Net \ Profit}{Net \ Sales} \times 100\%
\]

\[
Current \ Ratio = \frac{Current \ Assets}{Current \ Liabilities} \times 100\%
\]

\[
Debt \ to \ Equity \ Ratio = \frac{Total \ Debt}{Total \ Equity} \times 100\%
\]
11. Hypothesis
H₁: Current Ratio affects stock prices.
H₂: Debt to Equity Ratio affects stock prices.
H₃: Net Profit Margin affects stock prices.
H₄: Current Ratio, Debt to Equity Ratio, and Net Profit Margin collectively influence stock prices.

C. METHOD
The subject of this research encompasses several key variables: Current Ratio (X₁), Debt to Equity Ratio (X₂), and Net Profit Margin (X₃) as the independent variables, with Stock Price (Y) as the dependent variable. The focus is on pharmaceutical sub-sector companies listed on the Indonesian Stock Exchange. To gather data, the study analyzes the annual financial reports of these companies for the period from 2020 to 2022.

Regarding the population and sample, the research targets pharmaceutical firms on the Indonesian Stock Exchange. Utilizing purposive sampling, the study selects 7 out of 11 companies in the pharmaceutical sub-sector listed during 2020-2022, based on specific inclusion criteria deemed relevant for the research.

The analysis methodology incorporates a range of techniques. Descriptive Statistical Analysis is used for initial data exploration. Classical Assumption Tests ensure the validity of the regression assumptions. Multiple Linear Regression Analysis is conducted to understand the relationships between the independent and dependent variables. Hypothesis Testing is employed to test the proposed theories, and the Coefficient of Determination (R²) Test is used to measure the model’s explanatory power. All data processing and analysis are performed using IBM SPSS V26 software.

D. RESULTS AND DISCUSSION

1. Descriptive Statistics

| Table 1. Results of Descriptive Statistical Test
<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>21</td>
<td>.94</td>
<td>4.45</td>
<td>2.8186</td>
<td>1.03550</td>
</tr>
<tr>
<td>DEP</td>
<td>21</td>
<td>.16</td>
<td>3.86</td>
<td>.8505</td>
<td>1.07650</td>
</tr>
<tr>
<td>NPM</td>
<td>21</td>
<td>.01</td>
<td>.39</td>
<td>.1276</td>
<td>1.0334</td>
</tr>
<tr>
<td>HARGA</td>
<td>21</td>
<td>685</td>
<td>4750</td>
<td>1786,67</td>
<td>1083,369</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Results of IBM SPSS v26 Software Output.

The dataset presented in Table 1 shows the distribution of outlier values that may have a significant impact on subsequent data analysis procedures. Therefore, retesting should be conducted by excluding outlier observations from the sample. Outlier data refers to observations that significantly deviate from other data in a particular population. The presence of outlier data in a sample can have a significant impact on the pattern of data distribution, resulting in the formation of an abnormal data spread. This
abnormal distribution is a necessary condition for further analysis, as explained by Iskandar et al. (2022). The subsequent outcomes present the results of descriptive statistical tests subsequent to outlier handling:

### Table 2 Results of Descriptive Statistical Test

<table>
<thead>
<tr>
<th>Source: Results of IBM SPSS v26</th>
</tr>
</thead>
</table>

The descriptive statistical analysis presented in Table 2 indicates that N signifies 16 data points, derived from the original 21 samples after excluding 5 outliers. The Current Ratio shows a mean of 2.7638 and a standard deviation of 0.97039. The average (mean) for the Debt to Equity Ratio is 0.6038, with a standard deviation of 0.44360. The Net Profit Margin has a mean value of 0.0875, accompanied by a standard deviation of 0.03856. Regarding the Stock Price, the mean value is 2075.94, with a standard deviation of 1092.375. These results indicate a relatively uniform data distribution for all variables, as the mean is greater than the standard deviation.

2. Classical Assumption Test
   a. Normality Test

| Source: Results of IBM SPSS v26 Software Output. |

Based on the normality test results in Table 3 above, the One-Sample Kolmogorov-Smirnov Test yields an Asymp. Sig (2-tailed) value of 0.200. Since this value exceeds the significance level of 0.05, it can be concluded that the residual values exhibit a normal distribution. In addition to using the One-Sample K-S normality test, a Normal Probability Plot Graph test was also conducted, which can be seen in Figure 2 below:
The normal probability plot above illustrates that the plotted points are dispersed around the diagonal and align with the direction of the diagonal line. Consequently, it can be inferred that the regression model is normally distributed.

b. **Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>DER</td>
</tr>
<tr>
<td></td>
<td>NPM</td>
</tr>
</tbody>
</table>

Source: Results of IBM SPSS v26 Software Output.

The multicollinearity test results detailed in Table 4 reveal the following: the Current Ratio variable has a tolerance of 0.158 and a Variance Inflation Factor (VIF) of 6.338, the Debt to Equity Ratio shows a tolerance of 0.141 with a VIF of 7.101, and the Net Profit Margin has a tolerance of 0.336 and a VIF of 2.979. These results demonstrate that each variable has a tolerance value above 0.10 and VIF values below 10, which suggests that multicollinearity is not an issue in the regression model.

c. **Autocorrelation Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.890</td>
<td>0.793</td>
<td>0.741</td>
<td>355,804</td>
<td>2.125</td>
</tr>
</tbody>
</table>

Source: Results of IBM SPSS v26 Software Output.

Based on the autocorrelation test results in Table 5, it is revealed that the Durbin-Watson value is 2.125. Meanwhile, for $\alpha = 5\%$ on the Durbin-Watson table with $n = 16$ and independent variables $(k) = 3$, the critical values $(dL$ and $dU)$ are obtained as 1.727.
Since the Durbin-Watson value falls within the range of $1.727 < 2.125 < 4 - 1.727$, it can be concluded that there is no autocorrelation present in the regression model.

d. Heteroskedasticity Test

![Figure 3 Heteroskedasticity Test Scatterplot Results](image)

Source: Results of IBM SPSS v26 Software Output.

The scatter plot's visual analysis indicates that the data points are randomly dispersed and do not exhibit any distinct pattern, with their distribution being both above and below the zero line on the Y-axis. This lack of a consistent pattern suggests the absence of heteroskedasticity in the data, affirming the appropriateness of the variables for the analysis.

3. Multiple Linear Regression Analysis

Table 6 Results of Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Coefficients $^a$</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2136.621</td>
<td>1580.850</td>
<td></td>
<td>1.352</td>
</tr>
<tr>
<td>CR</td>
<td>-1138.565</td>
<td>372.306</td>
<td>-1.011</td>
<td>-3.058</td>
</tr>
<tr>
<td>DER</td>
<td>-421.768</td>
<td>862.042</td>
<td>-1.171</td>
<td>-0.489</td>
</tr>
<tr>
<td>NPM</td>
<td>38179.064</td>
<td>6472.488</td>
<td>1.348</td>
<td>5.944</td>
</tr>
</tbody>
</table>

Source: Results of IBM SPSS v26 Software Output.

Derived from the outcomes of the multiple linear regression test in Table 6, the acquired model for the regression equation is as follows: Stock Price = 2,136.621 - 1,138.565 \times \text{Current Ratio} - 421.768 \times \text{Debt to Equity Ratio} + 38,179.064 \times \text{Net Profit Margin}. The constant term ($\alpha$) is positive, at 2,136.621. This implies that if all the independent variables, namely Current Ratio, Debt to Equity Ratio, and Net Profit Margin, are set to zero, the Stock Price is expected to increase by 2,136.621.

The regression coefficient for the Current Ratio variable is negative, at -1,138.565. This suggests a negative relationship between the Current Ratio and Stock Price. In simpler terms, if the Current Ratio increases by one unit, assuming all other independent variables remain constant, the Stock Price is anticipated to decrease by 1,138.565.

The regression analysis shows that the coefficient for the Debt to Equity Ratio variable is -421.768, indicating a negative correlation between the Debt to Equity Ratio and Stock Price. This means that for every one-unit increase in the Debt to Equity
Ratio, with other variables held constant, there is an expected decrease of 421.768 in the Stock Price.

Conversely, the coefficient for the Net Profit Margin variable is positively set at 38,179.064, suggesting a positive relationship with the Stock Price. This implies that an increase of one unit in the Net Profit Margin, assuming all other independent variables are unchanged, would result in an expected increase of 38,179.064 in the Stock Price.

4. Hypothesis Testing
   a. Partial Test (t-test)

   Table 7 Results of Partial Test (t-test)

<table>
<thead>
<tr>
<th>Coefficients^a</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2136,621</td>
<td>1580,850</td>
</tr>
<tr>
<td>CR</td>
<td>-1138,565</td>
<td>372,306</td>
</tr>
<tr>
<td>DER</td>
<td>-421,768</td>
<td>862,042</td>
</tr>
<tr>
<td>NPM</td>
<td>38,179.064</td>
<td>642,488</td>
</tr>
</tbody>
</table>

   Source: Results of IBM SPSS v26 Software Output.

   According to the test results, the Current Ratio variable exhibits a significant value of 0.010. This signifies that the significance value is less than 0.05 (0.010 < 0.05), indicating acceptance of H1. Consequently, it can be inferred that the Current Ratio variable has a partial effect on Stock Price.

   According to the test results, the Debt to Equity Ratio variable demonstrates a significant value of 0.633. This suggests that the significance value exceeds 0.05 (0.633 > 0.05), leading to the rejection of H2. Consequently, it can be inferred that the Debt to Equity Ratio variable does not have a partial effect on Stock Price.

   According to the test results, the Net Profit Margin variable shows a significant value of 0.000. This suggests that the significance value is less than 0.05 (0.000 < 0.05), leading to the acceptance of H3. Consequently, it can be inferred that the Net Profit Margin variable has a partial effect on Stock Price.

   b. Simultaneous Test (F-test)

   Table 8 Results of Simultaneous Test (F-test)

<table>
<thead>
<tr>
<th>ANOVA^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

   Source: Results of IBM SPSS v26 Software Output.

   The information in Table 8 indicates that the significance value is below 0.05 (0.000 < 0.05), leading to the rejection of H0 or acceptance of H4. This implies that the Current Ratio, Debt to Equity Ratio, and Net Profit Margin variables collectively exert an influence on Stock Prices.
5. Coefficient of Determination ($R^2$)

<table>
<thead>
<tr>
<th>Summary modelb</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.890</td>
<td>.790</td>
<td>.741</td>
<td>555,804</td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), NPM, CR, TATO, DER  
b. Dependent Variable: HARGA_SAHAM

Source: Results of IBM SPSS v26 Software Output.

The coefficient of determination test results presented in Table 9 show an Adjusted $R^2$ value of 0.741. This indicates that 74.1% of the variation in the dependent variable, Stock Price, can be explained by the three independent variables in the study: Current Ratio, Debt to Equity Ratio, and Net Profit Margin. The other 25.9% (represented by the remaining portion, 0.259) of the variation in Stock Price is attributed to factors not included in this research, such as Total Asset Turnover, Return on Assets, Return on Equity, Earnings Per Share, among others.

6. Influence of Current Ratio on Stock Prices

This study establishes a noteworthy correlation between the current ratio and stock prices. The current ratio serves as a metric for gauging a company’s capacity to fulfill its short-term liabilities by evaluating the adequacy of its current assets. A heightened current ratio suggests that a company can fulfill its short-term obligations, ensuring undisturbed operational activities and the potential for substantial profits. Moreover, an elevated current ratio often leads to increased dividend distributions, attracting heightened investor interest, ultimately influencing an uptick in stock prices. This finding aligns with prior research conducted by Baharuddin, Abdul Wahab, Zulkifli Sultan (2022), Ade Gunawan (2020), and Amalia Rona (2020), all of whom contend that the current ratio exerts an impact on stock prices.

7. Influence of Debt to Equity Ratio on Stock Prices

The study finds no significant link between the debt-to-equity ratio and stock prices. It suggests that the impact of debt levels on investor interest in capital investments is not solely dependent on the size of the debt. Instead, investors consider how effectively a company utilizes its debt to cover operational costs. If a company effectively leverages its debt, it signals positively to potential investors, encouraging them to allocate their funds to the company, ultimately leading to an increase in stock prices. Despite the fact that not all companies fail to effectively use their debt, there are instances where certain companies demonstrate proficiency in utilizing debt to meet their financial obligations. This research finding is consistent with previous studies conducted by Silvia Ari, Immas Nurhayati, Diah Yudhawati (2020), Laynita Sari, Wini Esparesya, Renil Septiano (2022), Andriyani Hapsari, and Ilman Fernando (2022), all of whom state that the debt to equity ratio does not influence stock prices.
8. Influence of Net Profit Margin on Stock Prices
The research establishes a significant link between the net profit margin and stock prices, suggesting that the net profit margin is a useful indicator for predicting stock price movements. The net profit margin, which quantifies the percentage of net profit earned from each sale, is a key measure of a company’s profitability. Companies with higher net profit margins are typically more appealing to investors, as these margins indicate a greater capacity for profit generation. This attractiveness often translates into higher stock prices. This finding is consistent with the results of prior studies by Denik Puspitasari and Yahya (2020), Abdul Hamid and Dailibas (2021), and Nafis Dwi Kartiko and Ismi Fatiha (2021), which all identified a correlation between net profit margin and stock prices.

9. Influence of Current Ratio, Debt to Equity Ratio, and Net Profit Margin Simultaneously on Stock Prices
This study finds that these ratios function as significant indicators in assessing profitable stock prospects, providing insights into a company’s capacity to generate profits from its assets and funds. The greater the profits generated by a company’s assets and capital, the more attractive it is to potential investors, leading to an increase in demand for the company’s stock. Consequently, this increased demand contributes to the rise in the company’s stock prices. Therefore, it can be concluded that investors will consider these ratios as benchmarks for evaluating profitable investment opportunities. This research finding is consistent with previous studies conducted by Nadhifa, Triyono-wati (2020), and Agnes Triwidya-stuti (2020), both of whom state that Current Ratio, Debt to Equity Ratio, and Net Profit Margin simultaneously influence stock prices.

E. CONCLUSION
Based on the research conducted on pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange from 2020 to 2022, it is concluded that the Current Ratio and Net Profit Margin significantly influence stock prices in these companies. However, the Debt to Equity Ratio does not show a significant impact on stock prices. When these factors - Current Ratio, Debt to Equity Ratio, and Net Profit Margin - are considered collectively, they demonstrate a notable combined influence on the stock prices within the pharmaceutical sub-sector during the specified period.

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