The Effect of Activity, Liquidity, Profitability, And Solvency on Stock Prices and Implications on Firm Value: Pharmaceutical Industry Sub-Sector Companies

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ABSTRACT

Objectives: This research aims to conduct a descriptive and verificative analysis of the condition of Activity Ratio, Liquidity, Profitability, and Stock Price in the pharmaceutical industry on the Indonesia Stock Exchange from 2009 to 2020. Additionally, the study aims to identify and analyze the extent to which Activity Ratio, Liquidity, Profitability, and Solvency influence Stock Price and its implications on Firm Value. Quantitative data will be used to gather the necessary information for analyzing the relationships between these variables.

Methodology: This study utilized a sample of 7 companies selected through purposive sampling, which involves choosing samples based on specific criteria. The data used for analysis is secondary data obtained from the annual reports available on the official website of the Indonesia Stock Exchange (IDX). The data analysis methods employed in this study include panel data regression analysis, multiple linear regression analysis, hypothesis testing, and determination coefficient analysis.

Finding: The findings of the study revealed that when considered collectively, the Activity Ratio, Liquidity, Profitability, and Solvency variables had a significant impact on the Stock Price, as indicated by a coefficient of determination (R2) of 69.92%. Individually, the Activity Ratio exhibited a negative and significant influence on the stock price, while profitability demonstrated a positive and significant effect on the stock price. On the other hand, liquidity and solvency were found to have no significant effect on the stock price. Additionally, the study identified a significant relationship between Stock Price and Firm Value. The results show that the company's activity (Activity Ratio), liquidity (Liquidity), profitability (Profitability), and solvency (Solvency) have a significant impact on stock prices. Companies with high activity levels, good liquidity, high profitability, and strong solvency tend to have higher share prices. This research provides an understanding of the factors that influence stock prices and can assist investors, financial analysts, and companies in making investment decisions.

Conclusion: The conclusions of this study are Activities measured by TATO, Liquidity measured by CAR, Profitability measured by ROA in pharmaceutical industry sub-sector companies for the 2009-2020 period tend to decrease, while Solvency measured by DAR and Firm Value in pharmaceutical industry sub-sector companies for the 2009-2020 period tends to increase.

Keywords: Activity Ratio, Liquidity, Profitability, Solvency, Stock price and Firm Value

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INTRODUCTION

The number of new businesses that have sprung up with their respective advantages makes competition higher among companies. This causes uncertainty that leads to risk, the way to minimize the risk is to seek additional capital for the company by offering its shares on the Indonesia Stock Exchange (IDX) to improve the company's performance and realize the desired advantages. Not a few industries or companies on the Indonesia Stock Exchange (IDX) have poor performance. The average share price in the pharmaceutical industry sub-sector is the worst stock price because it has decreased the most over the past 12 years compared to other sectors in the consumer goods industry. This is due to the weakening of the currency exchange rate because drug raw materials still have to be imported from abroad, the currency exchange rate has an important role in the performance of the pharmaceutical industry.

Stock prices determine shareholder wealth. Maximization of shareholder wealth translates into maximizing the company's share price. The price of a stock at any one given time will depend on the cash flow that the "average" investor is expected to receive in the future if the investor buys the stock (Eugene F. Brigham &; Joel F. Houston, 2018:88). Stocks are known to have high risk-high return characteristics. This means that stocks are a type of investment that is quite high-risk even though they promise relatively large profits. This is because stock investment in the capital market is very sensitive to changes that occur (Badruzaman, 2017). Investing in stocks requires a deep understanding and high accuracy in choosing a good company to invest capital and the right time when buying and selling shares, To minimize risk can be done by analyzing and searching for information that can support investment decision-making. The analysis that can be used is fundamental analysis. The financial statements published by the company can be understood and analyzed fundamentally to show which companies can provide profits. Fundamental analysis can be done using data or financial ratios.

Brigham and Houston (2019: 121) argue that if the ratio of liquidity, asset management, debt management, and profitability is good, then the stock price will be as high as expected. The financial ratio is an important indicator for investors because if the four ratios have good performance, investors will assume that the company has good performance, which will then attract investors to invest in the company and this will trigger an increase in the company's stock price.

The first ratio that affects stock prices is the activity ratio. The Activity Ratio can reflect how many times an investment embedded in a company's assets spins into sales. The faster the turnaround, the more efficient the utilization of assets owned by the company, which means that sales will increase, which will have an impact on increasing the company's profit. Investors will be happy if the company's activity ratio has a fast turnaround because it indicates the company has a good performance. The better the company's performance the impact on the company's stock price will be higher.

The activity ratio is measured using total asset turnover. Total asset turnover is a measurement tool used to show how efficiently a company uses its total assets to generate revenue or sales. It is a dollar measure of sales generated by one dollar of company assets. Generally, the more efficiently assets are used, the higher the company's profits. The size of the ratio is influenced
by the characteristics of the industry in which the company operates (Ronald W. Melicher & Edgar A. Norton, 2017: 429)

The reason for using total asset turnover as a measurement tool for activity ratios compared to other measuring instruments is because total asset turnover is a measurement tool to determine the level of effectiveness of managing the overall assets owned by the company into sales, not just managing parts of the assets themselves, therefore total asset turnover is the best measuring tool to see the performance of the company's activity ratio. The results of the study (Desy Istiyowati &; Ika Swasti Putri, 2022) and (Ade Prima &; Linna Ismawati 2019) stated that the activity ratio measured using Total asset turnover (TATO) had a positive and significant effect on Stock Price.

The second ratio that can affect stock prices is the liquidity ratio. Liquidity Ratio is a ratio used to describe a company's ability to meet short-term obligations. The liquidity ratio is one of the factors that make investors interested in investing their capital. The value of the liquidity ratio has a high or increasing value, so investors will assume that the company is increasingly able to meet or settle its short-term obligations, namely debt using current assets and when the company can cover its short-term needs. The liquidity ratio is measured using the cash ratio. The cash ratio or cash coverage ratio is a liquidity ratio that measures a company's ability to pay off its current liabilities only with cash and cash equivalents (Felix I. Lessambo, 2018: 210).

The reason for using the cash ratio as a measurement tool for activity ratios compared to other measuring instruments such as the quick ratio or current ratio. After all, there are no other current assets that can be used to pay the current debt, only cash is available because inventory takes a long time to sell and receivables can take a long time to collect. The results of the study (Nadia Islavella Nadia &; Roosmalitasari Sari, 2022), (Siti Nurkholifah and Fandi Kharisma, 2020) and (Mudlofir, 2017) stated that the liquidity ratio measured using the Cash ratio has a positive and significant effect on Stock Price.

The third ratio that can affect stock prices is the profitability ratio. Profitability is used to measure the effectiveness of company management management as indicated by the amount of profit generated from sales and investment. The profitability ratio is measured using return on assets. Return on assets is used to measure the return on investment in assets after a company has covered its operating expenses, interest costs, and tax liabilities (Ronald W. Melicher & Edgar A. Norton, 2017: 436).

The reason for using return on assets as a measure of profitability ratios compared to other measuring tools is because this ratio helps management and investors see how well the company can turn its investment in assets into profits. Return on assets can be seen as a return on investment for a company because asset capital is often the largest investment for most companies, in which case the company invests money into capital assets, and the return is measured in profits. The results of the study (Neni Nur'aeni &; Gusganda Suria Manda, 2021) and (Yancik Syafitri &; Stephanie Angelia Tamba, 2017) stated that the profitability ratio measured using return on assets has a positive and significant effect on Stock Price.
The fourth ratio that can affect stock prices is the solvency ratio. The solvency ratio measures a company's ability to pay its debts called solvency. The size of the company's solvency is the main attraction of creditors, if the value of solvency is lower, the company's ability to pay off all its obligations is better, then creditors will find it easier to lend money to the company. The ease of creditors in lending to the company is a good signal for investors because if the company continues to get loans and can pay off all its obligations, it means that the company makes good investment decisions in using its debts which makes investors assume that the company has good performance. The solvency ratio is measured using the debt-to-asset ratio. The ratio of total debt to total assets is calculated by dividing the total debt, or total liabilities, of the business by the total assets. This ratio shows the portion of total assets financed by all creditors and debtors (Ronald W. Melicher & Edgar A. Norton (2017:432)

The reason for using the debt-to-asset ratio as a measuring tool for solvency ratios compared to other measuring instruments is because according to Kasmir (2017: 112), the Debt to asset ratio has a high value meaning that assets funded by debt are large enough, so the company will be more difficult to obtain additional loan funds which are feared that the company will not be able to cover its debts with the assets it has. Conversely, if the Debt to asset ratio of a company is low, it means that the company's funds are slightly financed by debt so that it will affect the increase in stock prices.

Shareholders, creditors, and managers are parties who have different interests and perspectives concerning the company. Shareholders will tend to maximize the value of shares and force managers to act in their interests through the oversight they exercise. Creditors on the other hand tend to try to protect the funds they have invested in the company with guarantees and strict supervision policies as well. Managers also have the drive to pursue their interests. Managers can invest even though the investment cannot maximize shareholder value.

The high and low value of the company, is very dependent on the company's financial performance, according to Sukhemi (2007: 23) suggests that "performance can be interpreted as achievements achieved by the company in a certain period that reflects the level of health of the company". Performance is an important thing that must be achieved by every company because it reflects the company's ability to manage and allocate its resources. Performance measurement is one of the most important factors for companies because these measurements can affect decision-making behavior within the company. The measurement of a company's financial performance depends on the point of view taken and the purpose of the analysis. Therefore, company management needs to adjust the company's condition with performance appraisal measurement tools and the purpose of measuring the company's financial performance.

Research on the effect of various financial ratios on stock prices has been carried out, but there are many inconsistencies in the results of the research so some are in line and some are not in line with the idea of signaling theory. Some studies have found that profitability has a positive and significant effect on stock prices, whereas others have found no effect. The effect of liquidity on stock prices is also less clear. Some studies found both positive and significant influences, while others found no significant influences. The effect of solvency on stock prices is also diverse. Some studies found both negative and significant effects, while others found no significant effects. Furthermore, the effect of activity on stock prices was found to be
insignificant, while other findings had a significant positive influence. (Benefactor & Levina, 2019; Latifah & Syriac, 2020) Increased corporate activity tends to have a positive impact on stock prices. In other words, when a company's activity increases, the stock price tends to rise. Research from (Indrayani et al., 2020; Nabella et al., 2022) explained that company activities have a significant influence on stock prices. Further research from (Husain, 2021; Latifah & Syriac, 2020) explains that corporate activity has a significant influence on stock prices, with increased corporate activity likely to have a positive impact on stock price movements. This is reaffirmed in research (Candra & Wardani, 2021; Indrayani et al., 2020) who explained that company activities have a significant influence on stock prices. This research shows that when a company's activity, such as the level of production, sales, or use of assets, increases, it contributes positively to stock price movements. In other words, companies that are active and have a high level of activity tend to experience an increase in stock price.

Based on the inconsistencies in the research results, we tried to fill the gap by adding several novelties, including examining the pharmaceutical industry sub-sector, because previous studies examined more in the mining sector, consumer goods sector, manufacturing sector, companies including the IDX-30 Index, plantation sub-sector, and property sector. In addition, the study will examine signal theory that has not been revealed in the context of the pharmaceutical industry. using panel data regression methods (times series and cross section), because previous studies more focused on multiple linear regression (times series). Based on the background of the problem, the formulation of the problem is How much influence Activity, Liquidity, Profitability, and Solvency have on Share Prices both simultaneously and partially in Pharmaceutical Industry Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2009-2020 period? How much influence do Share Prices have on firms in the Pharmaceutical Industry Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2009-2020 period? Furthermore, to fill the research gap which is still a lot of debate based on previous research, then fill in the novelty by choosing Pharmaceutical Industry Sub-Sector Companies

**LITERATURE REVIEW**

**Stock Prices**

Stock prices have important significance for companies as well as investors. As the value of shares increases, the interest of investors to allocate their funds also increases, as the value of shares becomes an essential yardstick in measuring the performance of the companies in which they invest. Stock price is the value or price given to each share or portion of ownership in a company. This value is set by the market based on the demand and supply of the stock. Therefore, the share price indicates the extent to which investors are willing to pay to acquire a share of ownership in the corporate entity. Stock prices can also fluctuate, which depends on aspects such as the company's performance, market situation, estimated future earnings, and other economic factors. In this study, stock prices are measured by year-end closing prices. (Reboredo & Ugolini, 2022)(Anssari, 2023)(Tasnia et al., 2021)(Al-Dwiry et al., 2022). Stock prices are among the riskiest investments. This is because equity is vulnerable to internal and external changes in the company. Internal changes in the company can be seen in the financial ratios. Financial ratios include activity, liquidity, profitability, and solvency. Sallama and Kusumastuti (2018), suggest that favorable liquidity, assets, debt, and profitability ratios will drive stock prices. Brigham & Houston (2022) found that liquidity, solvency, activity, and
profitability ratios affect stock prices. This analysis reinforces the findings of Candra and Wardani (2021) that Profitability, Liquidity, Solvency, Activity Ratio, and company growth affect stock prices.

**Activity Ratio**
Maximizing the use of resources is one of the top priorities for every company. If the company can effectively utilize its resources, it shows superior performance and provides a positive outlook for investors. Evaluation of the level of optimization of company resources can be done through the use of activity ratios. Activity ratio is a ratio used to measure or describe how effective a company is in using its assets to generate sales. In this study, the activity ratio used is total (Kalbuana, Kusiyah, et al., 2022)(Gupta et al., 2022) asset turnover or the ratio between net sales and total assets. Total asset turnover describes the extent to which a company utilizes its total assets effectively to generate revenue or sales. It measures the amount of revenue generated from each unit of a company's assets. Usually, the more optimal the use of assets, the higher the profitability of the enterprise. The size of this ratio is influenced by the characteristics of the industry in which the company operates (Melicher & Norton, 2017). Resource management and operations of the enterprise can be assessed by the activity ratio, which measures the efficiency of assets. Optimizing the utilization of company assets can drive efficiency and productivity, and increase sales and profits. Companies that manage their assets well can earn greater profits, which attracts investors. If the activity ratio reveals that the company generates considerable revenue with relatively small assets, investors may be more likely to buy its shares, increasing the company's share price (Dian Indah Sari, 2020; Sriwahyuni & Saputra, 2017; Kittisak Jermsittiparsert et. Al, 2019).

**Liquidity Ratio**
The company has responsibilities that must be fulfilled so that all its operational activities can sustainably take place. One of the most important responsibilities is short-term responsibility, this relates to how the company manages the expenditure of daily activities. Although the company may have profitable revenues, if it is unable to cope with daily costs, the company's long-term survival can be jeopardized. The liquidity ratio is a ratio used to measure a company's ability to meet its short-term obligations to creditors. (Nerantzidis et al., 2023)(Ahmed et al., 2023)(Shawl & Nayak, 2023)In this study, the liquidity ratio used is the cash ratio or the comparison between cash plus cash equivalent and current liabilities. The cash ratio or cash coverage ratio is a liquidity metric that measures a company's ability to meet its current liabilities using cash and assets that are easily disbursed. The liquidity ratio shows the short-term liquidity of the company. Companies with strong liquidity have adequate liquid assets or can quickly convert them into cash to meet maturing obligations. Investors trust companies with good liquidity ratios. Because sufficient liquidity protects organizations from financial challenges in meeting daily obligations such as debt repayment and operational costs. Good liquidity helps companies survive economic downturns and these market changes also have an impact on increasing stock prices (Isslavella &; Sari, 2022; Nurkholifah &; Kharisma, 2020; Azizah &; Son, 2022).

**Profitability Ratio**
Achieving profit in business has a very important significance because all efforts made by the company lead to the way the company generates profits. Evaluation of the company's capability to achieve profits can be done using profitability ratios. The profitability ratio is an indicator
used to measure the effectiveness of the use of assets in generating returns. (Rahim et al., 2023)(Louw et al., 2022)(Kalbuana, Taqi, et al., 2022) In this study, the profitability ratio used is the return on asset or the comparison between net profit and total assets. Return on assets (ROA) is used to assess investment returns on assets after a company allocates funds for operating expenses, interest expenses, and its tax liabilities. (Boshnak, 2023). The Return on Assets (ROA) ratio indicates a company's ability to generate profits from its commercial operations. When the profitability ratio is positive and improving, it indicates that the company's ability to make a profit from its investments and activities is strong. A high profitability ratio is more attractive to investors because it implies that the company has the potential to provide a great return on investment. So profitability has an impact on increasing the share price of a company (Nur'aeni &; Manda, 2021; Syafitri and Tamba, 2017; Mudlofir, 2017).

**Solvency Ratio**

Carrying out responsibilities both in the short and long term is very important. When the company can fulfill all its obligations, it signals positive performance and gives confidence to investors. If the company can generate high revenues without facing a large burden, then the company can be considered efficient in managing its debts or obligations. In assessing the company's capability to fulfill long-term and short-term responsibilities, the solvency ratio can be used. (Ande & Yoewono, 2018)(Kouzez & Séjourné, 2019)In this study, the solvency ratio used is the debt-to-asset ratio or the comparison between total debt and total assets. This ratio indicates the extent to which the share of total assets is financed by creditors and borrowers.(Abubakar et al., 2018). Investors are more confident in organizations with excellent solvency ratios and are more interested in them. Companies with low solvency ratios are less likely to fail and have a stronger ability to meet their financial obligations. Companies with high or unhealthy solvency ratios, on the other hand, can be seen as more dangerous by investors, which can affect the likelihood of return on investment and, ultimately, have an impact on the decline in the company's stock price. (Istiyowati and Putri, 2022; Widjiarti &; Anggраeni, 2018).

**Firm Value**

The main objective of the company is to increase the value of the company through increasing the prosperity of the owners or shareholders (Wahidawati, 2002 in Permanasari, 2010). The value of the company is measured from several aspects, one of which is the market price of the company's shares because the market price of the company's shares reflects the investor's assessment of the overall equity owned. Rika and Ishlahuddin (2008) define firm value as market value. The value of the company can provide maximum prosperity or profit to shareholders if the company's share price increases. The higher the share price, the higher the shareholder profit so this situation will be in demand by investors because, with increasing demand for shares, the company's value will also increase. Price to Book Value (PBV) is one of the variables that an investor considers in determining which stock to buy. For companies that are doing well, generally, this ratio reaches above one, which indicates that the market value of the stock is greater than its book value. The greater the PBV ratio, the higher the company is valued by investors relative to the funds that have been invested in the company.
Conceptual Framework and Hypothesis

The effect of the ratio of activity to stock price reflects the efficiency of using company assets in generating revenue, influencing stock prices. Companies that have a high activity ratio show that they can optimize the use of their assets, such as inventory, accounts receivable, and fixed assets, to generate higher revenues. Efficiency in the use of these assets gives positive signals to investors about the company's operational performance and future growth potential. As a result, the company's share price tends to increase. On the other hand, companies with low activity ratios can be considered less efficient in the use of their assets, which can affect investors' perception of the company's performance and growth. This can lead to a drop in stock prices. Therefore, the activity ratio becomes an important factor considered by investors in assessing the growth potential and value of the company.

Stock prices are among the riskiest investments. This is because equity is vulnerable to internal and external changes in the company. Internal changes in the company can be seen in the financial ratios. Financial ratios include activity, liquidity, profitability, and solvency. Sallama and Kusumastuti (2018), suggest that favorable liquidity, assets, debt, and profitability ratios will drive stock prices. Brigham & Houston (2022) found that liquidity, solvency, activity, and profitability ratios affect stock prices. This analysis reinforces the findings of Candra and Wardani (2021) that profitability, liquidity, solvency, activity ratio, and company growth affect stock prices. Resource management and operations of the enterprise can be assessed by the activity ratio, which measures the efficiency of assets. Optimizing the utilization of company assets can drive efficiency and productivity, and increase sales and profits. Companies that manage their assets well can earn greater profits, which attracts investors. If the activity ratio reveals that the company generates considerable revenue with relatively small assets, investors may be more likely to buy its shares, increasing the company's share price (Dian Indah Sari, 2020; Sriwahyuni & Saputra, 2017; Kittisak Jermsittiparsert et. Al, 2019).

H1. The ratio of activity affects the stock price
The effect of the liquidity ratio on stock price is an important indicator that describes a company's ability to meet its financial obligations and manage cash flow well. Companies with high liquidity ratios show a better ability to meet their liquidity needs and face financial challenges. This reflects financial stability and increases investor confidence. Sebagai hasilnya, harga saham perusahaan cenderung mengalami peningkatan karena investor. The liquidity ratio shows the short-term liquidity of the company. Companies with strong liquidity have adequate liquid assets or can quickly convert them into cash to meet maturing obligations. Investors trust companies with good liquidity ratios. Because sufficient liquidity protects organizations from financial challenges in meeting daily obligations such as debt repayment and operational costs. Good liquidity helps companies survive economic downturns and these market changes also have an impact on increasing stock prices (Islavella & Sari, 2022; Nurkholifah & Kharisma, 2020; Azizah & Son, 2022).

H2. Liquidity ratios affect stock prices

The Return on Assets (ROA) ratio indicates a company's ability to generate profits from its commercial operations. When the profitability ratio is positive and improving, it indicates that the company's ability to make a profit from its investments and activities is strong. A high profitability ratio is more attractive to investors because it implies that the company has the potential to provide a great return on investment. So profitability has an impact on increasing...
the share price of a company (Nur'aeni & Manda, 2021; Syafitri and Tamba, 2017; Mudlofir, 2017). Investors are more confident in organizations with excellent solvency ratios and are more interested in them. Companies with low solvency ratios are less likely to fail and have a stronger ability to meet their financial obligations. Companies with high or unhealthy solvency ratios, on the other hand, can be seen as more dangerous by investors, which can affect the likelihood of return on investment and, ultimately, have an impact on the decline in the company's stock price. (Istiyowati and Putri, 2022; Widjiarti & Anggraeni, 2018; Arief, H. 2019).

**H3. The profitability ratio affects the stock price**

The stock price of a company plays a significant role in determining its overall value. Firstly, a high stock price generally indicates positive market sentiment and investor confidence in the company. When the stock price rises, it implies that investors are willing to pay a premium for the company's shares, which in turn increases its market capitalization. This increase in market capitalization reflects positively on the company's perceived value, as it suggests that investors believe the company has strong growth prospects and is expected to generate higher profits in the future. A higher stock price also enhances the company's ability to raise capital through equity offerings, as it can issue new shares at a higher price, thereby raising more funds to invest in its operations and expansion. Conversely, a decline in the stock price can have a negative impact on the company's value. A low stock price may be interpreted as a lack of confidence in the company's performance and prospects, potentially leading to a decrease in market capitalization. This decrease in market capitalization can limit the company's access to capital, making it more challenging to raise funds for investments and expansion. Moreover, a declining stock price may also negatively affect the company's ability to attract and retain talented employees, as stock options and other forms of equity compensation become less attractive when the stock price is low. Overall, fluctuations in stock prices can significantly influence the perceived value of a company, affecting its financial flexibility, growth opportunities, and ability to attract investment.

**H4. The solvency ratio affects the stock price**

The share price of a company is a reflection of the value of that company in the financial markets. Stock price fluctuations are influenced by a variety of factors, including a company's financial performance, growth prospects, industry conditions, and overall market sentiment. When stock prices rise, it often reflects a positive assessment of a company's prospects, whether in terms of revenue, profit, or product innovation. Conversely, when stock prices decline, it can indicate uncertainty or concern regarding financial performance or changes in the business environment. Therefore, stock price movements can provide an important indication of how the market values the value of a company. Stock prices have a significant influence on a company's value. An increase in stock price can increase a company's valuation and signal to investors that the company has good prospects. This can increase investor confidence, open the door to additional capital acquisition, and strengthen the company's position in business negotiations. On the other hand, a decline in stock price can lead to a decline in a company's valuation, reduce a company's ability to raise capital at a low cost, and present challenges in maintaining investor confidence. Therefore, changes in stock prices can affect the perception and value of the company as a whole in the financial markets. This is following research from (Ramdhani et al., 2022; Setiabudhi, 2022; Surya Abbas et al., 2020).

**H5. The stock price affects the Firm's Value**
METHOD

The research methods used verificative methods. The verificative method is used to determine the effect of the ratio of Activity, Liquidity, Profitability, and Solvency on stock price and impact on firm value in Pharmaceutical Industry Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2009-2020 period. The selection of research objects in pharmaceutical industry sub-sector companies listed on the Indonesia Stock Exchange for the period 2009-2020 is based on several relevant reasons. First, the pharmaceutical industry is one of the most important sectors in the Indonesian economy, with significant growth during that period. Researching pharmaceutical companies listed on the Indonesia Stock Exchange can provide insight into the performance and factors affecting companies in the industry, including financial, management, and business environment aspects. The population is 11, sampling by purposive sampling with the following criteria: (1) Pharmaceutical Industry subsector companies that have been and are still listed on the Indonesia Stock Exchange for the 2009-2020 period, (2) Pharmaceutical Industry subsector companies that consistently publish complete financial statements during the 2009-2020 period, (3) Pharmaceutical Industry subsector company listed on the Indonesia Stock Exchange and has complete stock price data from 2009-2020. The total sample is 7 companies. Data analysis was performed using regression analysis.

RESULT

This research involves several stages in data analysis. The first stage is Result Panel Data Regression Analysis, where panel regression analysis is carried out to test the relationship between research variables. This method allows researchers to model and estimate the simultaneous impact of multiple factors influencing the dependent variable. The next stage is the Partial Hypothesis Result (Test t), where partial hypothesis testing is carried out on each independent variable to see if they have a significant influence on the dependent variable. In this stage, the t-test is used to test the meaningfulness of individual regression coefficients. Next, a simultaneous coefficient of determination analysis is performed to see the extent to which the independent variables together explain variations in the dependent variable. Finally,
a partial coefficient of determination analysis is performed to identify the extent to which each independent variable makes a unique contribution to variation in the dependent variable, after controlling for other variables. These stages comprehensively analyze the relationship between the variables in the study and provide a deeper understanding of the factors influencing the dependent variable.

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
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<td>0.724203</td>
<td>11.48558</td>
<td>0.0000</td>
</tr>
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<tr>
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<tr>
<td>X3</td>
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<td>X4</td>
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<td>0.8727</td>
</tr>
</tbody>
</table>

Based on Table 1, the effect of activity, liquidity, profitability, and solvency ratios on stock prices in the form of panel data regression equations with fixed effect models is as follows:

\[ Y = 8.317887 - 1.503098X_1 + 0.083891X_2 + 3.562044X_3 + 0.198186X_4 + \varepsilon \]

**Table 2**

<table>
<thead>
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</tbody>
</table>

Based on Table 2, shows that there is no effect of liquidity and solvency on stock prices, while activity and profitability have a significant effect.

**Table 3**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.699280</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.658086</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.746125</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>40.63930</td>
</tr>
<tr>
<td>Mean dependent var</td>
<td>7.017500</td>
</tr>
<tr>
<td>S.D. dependent var</td>
<td>1.276007</td>
</tr>
<tr>
<td>Akaike info criterion</td>
<td>2.373701</td>
</tr>
<tr>
<td>Schwarz criterion</td>
<td>2.692022</td>
</tr>
</tbody>
</table>

http://dx.doi.org/10.22441/jurnal_mix.2024.v14i1.013
Based on Table 3, it can be seen that the ratio of activity, liquidity, profitability, and solvency simultaneously has a significant effect on stock prices (Prob F-statistic < 0.05) with an influence of 69.92%.

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Beta</th>
<th>Zero Oder</th>
<th>Beta x Zero Order</th>
<th>( r^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity (X₁)</td>
<td>-1,0946</td>
<td>-0,2675</td>
<td>-1,0946 x -0,2675</td>
<td>0,2929</td>
</tr>
<tr>
<td>Liquidity (X₂)</td>
<td>0,1053</td>
<td>0,4484</td>
<td>0,1053 x 0,4484</td>
<td>0,0472</td>
</tr>
<tr>
<td>Profitability (X₃)</td>
<td>0,6344</td>
<td>0,5644</td>
<td>0,6344 x 0,5644</td>
<td>0,3581</td>
</tr>
<tr>
<td>Solvability (X₄)</td>
<td>0,1468</td>
<td>0,0073</td>
<td>0,1468 x 0,0073</td>
<td>0,0011</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>0,6992</td>
</tr>
</tbody>
</table>

The coefficients of partial determination of the ratio of activity, liquidity, profitability, and solvency are shown in Table 4. Profitability is the variable that has the largest contribution to the Stock Prices at 35.81%.

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Beta</th>
<th>Zero Oder</th>
<th>Beta x Zero Order</th>
<th>( r^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Prices (Y)</td>
<td>0,821</td>
<td>0,786</td>
<td>0,821 x 0,786</td>
<td>0,6453</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>0,6453</td>
</tr>
</tbody>
</table>

The coefficients of partial determination of the Stock Price have contributed to the Firm Value of the company at 64%.

DISCUSSION

The ratio of activity affects the stock price

The test results show that simultaneously the ratio of activity, liquidity, profitability, and solvency together have a significant effect on the stock price, with a magnitude of 69.92%. The results of the regression analysis show that the ratio of activity to proxy total asset turnover has a negative and significant effect on stock prices. The negative influence is caused by investors' disinterest in some companies that have high TATO values but are not followed by high net income. Although the company has been very efficient in managing its assets to generate profits...
but is not efficient in managing its costs, causing the resulting net profit to be small can make investors uninterested in the company's shares and make the company's stock price go down (Faiz Muhammad Syafiq, 2017).

These results indicate that if the asset turnover increases, the stock price will decrease and vice versa. This is because the purpose of Total asset turnover itself is to measure the company's ability to generate sales using its assets. But sales here still have to be reduced expenses to become profits for shareholders, therefore shareholders consider that the greater the sales, the greater the expenses that must be borne. Not a few companies have high sales but have low profits even to losses, therefore for investors in pharmaceutical industry sub-sector companies listed on the Indonesia Stock Exchange for the 2009-2020 period, this total asset turnover is a danger sign to invest their capital. If associated with the sample, the results are following the phenomena that occurred in 2011, 2013, 2016, 2017, and 2020 where Total asset turnover decreased while stock prices increased. The results of this study are also in line with research conducted by Niawati, Sumardi Sulaeman, & Zul Azhar (2021), Andy Octavianus (2018), and Albertha W. Hutapea, Ivonne S. Saerang, & Joy E. Tulung (2017) which states that total asset turnover negatively affects stock prices.

Liquidity ratios affect stock prices
Liquidity does not affect stock prices. According to Peter Atrill (2020: 111), the liquidity ratio relates to the ability of a business to meet its short-term financial obligations. Based on this theory, the liquidity ratio is only used to see the company's ability to meet its short-term obligations, while investors invest for a long period, so the liquidity ratio is not a major concern because investors tend to look for ratios that can provide information for the long term. These results indicate that the Cash ratio is not the main factor for investors investing in pharmaceutical industry sub-sector companies listed on the Indonesia Stock Exchange for the 2009-2020 period.

This is because the purpose of the Cash ratio itself is to see the company's ability to pay off its current debt using the cash owned by the company. However, the purpose of investors in investing is to get profits, therefore ratios that do not show the profit or profit to be obtained often do not get the attention of investors when investing their capital, because sometimes in the minds of investors regardless of the company's ability to pay off its current debt, the most important thing is that the company gets profits for shareholders. The results of this study are also in line with research conducted by Muhamad Nugroho Pamungkas & Rosdiyati Rosdiyati (2022), Liber Kristiani Nazara, Friska Darnawaty Sitorus, Juli Risma Wati Perangin-angin, & Mei Wandani Saputri (2021), and Yunan Suroto & Andrian Hadinata (2020) which states that the Cash ratio does not affect stock prices.

The profitability ratio affects the stock price
Profitability has a positive and significant effect on stock prices. Return on assets (ROA) measures how well management uses all assets to generate a profit or profit. This ratio relates profit before tax to total assets. Therefore, the greater the company's ROA, the greater the level of profit achieved by the company. The higher the company's profit, the more investors will be interested in buying the company's shares so that the company's stock price will rise. So return on assets has a positive effect on stock prices (Mamduh M. Hanafi and Abdul Halim, 2018: 157). This indicates that if the Return on assets increases, it will increase stock prices. This is
because the purpose of Return on assets itself is to measure the company's ability to generate profits using its assets, therefore investors are very dependent on this ratio because the main purpose of investors in investing capital is for profit. The better the value of the Return on assets of a company, the more investors will be interested and confident in investing their capital. The results of this study are in line with research conducted by Dang Ngoc Hung, Hoang Thi Viet Ha, &; Dang Thai Binh (2018), Yancik Syafitri & Stephanie Angelia Tamba (2017), and Metin Yiğitusağı (2018) which suggests that Return on assets affects stock prices (Arief, H. et al., 2023)

The solvency ratio affects the stock price
Solvency does not affect the stock price. The results of this study follow the theory put forward by Modigliani and Miller's. MM stated that no matter how much debt is used, it will not affect the stock price and company value (Pery Sutisna &; Jaja Suteja, 2020). This is because the increase in the company's stock price can also be caused by the psychological factors of the investors themselves. That is, investors do not pay attention to the size of the portion of assets financed by debt but rather pay attention to how the company's performance in utilizing debt embedded in company assets effectively and efficiently can provide the best possible benefits for shareholders.

These results indicate that the Debt-asset ratio is not a factor for investors in investing in pharmaceutical industry sub-sector companies listed on the Indonesia Stock Exchange for the 2009-2020 period. This is because the purpose of the Debt-asset ratio itself is to measure the portion of assets owned by the company that are financed by debt and does not explain the company's ability to generate profits. As already explained investors tend to only think about how much profit will be obtained when investing their capital rather than thinking about how much portion of the company's assets are financed by debt, because the main goal for investors in investing their capital is to get profits, therefore the Debt to asset ratio in pharmaceutical industry sub-sector companies listed on the Indonesia Stock Exchange for the 2009-2020 period does not influence the rise and fall of stock prices. The results of this study are in line with research conducted by Chaidir, et al (2021), Annisa Putri Lestari &; Azib Asroi (2021), and Nofa Priliyastuti &; Stella Stella (2017) where the Debt to asset ratio (DAR) does not affect stock prices.

The stock price affects the Firm's Value
The coefficients of partial determination of the Stock Price contribute to the Firm Value of the company at 64% The stock price of a company has a significant impact on its overall value. A company's value is often determined by its market capitalization, which is calculated by multiplying the stock price by the number of outstanding shares. When the stock price of a company increases, it generally implies positive market sentiment and investor confidence. A higher stock price indicates that investors are willing to pay more for the company's shares, leading to a larger market capitalization. This increase in market capitalization reflects positively on the company's perceived value. It suggests that investors believe the company has strong growth prospects, solid financial performance, and the potential to generate higher profits in the future. A higher stock price also improves the company's financial flexibility by enhancing its ability to raise capital through equity offerings. By issuing new shares at a higher price, the company can raise more funds to invest in its operations, research and development, and expansion plans. This is supported by research Based on research conducted by (Nursalim
et al., 2021), profitability affects company value, followed by which states profitability affects company value, (Tui et al., 2017) This explains that stock price movements significantly affect the value of the company. When the stock price rises, the value of the company tends to increase, whereas when the stock price falls, the value of the company tends to decrease. This shows that investors and capital markets provide an assessment of the company's performance and prospects through changes in its stock price.

Conversely, a decline in the stock price can negatively impact the company's value. A lower stock price may indicate a lack of confidence in the company's performance and prospects, leading to a decrease in market capitalization. This decrease in market capitalization can limit the company's ability to raise funds, making it more challenging to finance its growth initiatives and strategic projects. Additionally, a declining stock price may erode investor trust and affect the company's ability to attract new investors or retain existing ones. It can also impact the company's ability to use its stock as a form of compensation for employees, as lower stock prices reduce the value of stock options and other equity-based incentives.

CONCLUSIONS

The conclusions of this study are Activities measured by TATO, Liquidity measured by CAR, Profitability measured by ROA in pharmaceutical industry sub-sector companies for the 2009-2020 period tend to decrease, while Solvency measured by DAR in pharmaceutical industry sub-sector companies for the 2009-2020 period tends to increase; Simultaneously, the ratio of activity, liquidity, profitability, and solvency has a significant effect on the stock price by 69.92%, while partially the ratio of profitability and activity influences the stock price, but the ratio of liquidity and solvency has no effect and Stock Price has an influence on Firm Value.

The largest contribution of influence on stock prices was contributed by a profitability ratio of 35.81%.

These results provide empirical evidence supporting signal theory. Pharmaceutical companies that experience increased profitability may interpret this as a positive signal to investors. They argue that this increase in profitability is due to competitive advantage, successful research and development, or innovation in their pharmaceutical products. Pharmaceutical companies with high liquidity are considered financially stronger and able to cope with difficult financial situations. Conversely, companies with poor solvency are considered to have high financial risks. The level of activity of the company, such as sales volume or growth rate, can be interpreted as a signal about the growth prospects of the company. If a pharmaceutical company shows a high level of activity, investors may see it as a sign that the company has good growth potential.

This research is limited to (1) The sample of this research is only 7 companies and only carried out in the pharmaceutical industry sector, research should be carried out with more samples and carried out in different sectors, for example, the financial, energy, technology or other sectors; (2) the indicators used to measure each ratio are only one indicator, further research should be carried out using more than one indicator so that the most relevant indicators can be known; (3) the research period is only eleven years, research should be carried out with a longer year period; (4) Variables that affect stock prices are represented by four variables related to...
financial ratios, should add other variables such as corporate social responsibility, corporate governance or can add mediation or moderation variables in future research.

REFERENCE


