

THE IMPACT OF MACROECONOMIC, FINANCIAL PERFORMANCE, MARKET RETURN, AND COVID-19 INSTANCES ON STOCK RETURN OF PHARMACEUTICAL COMPANIES

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ABSTRACT

One of the most important considerations for investors when making an investment was the stock return. However, some publicly traded pharmaceutical companies in Indonesia saw poor stock returns while others saw positive stock returns. Stocks return were influenced by many factors, previous researches found different conclusions on factors influencing stocks return. There were also limited number of study on the effect of Market Return and COVID-19 on stock returns of pharmaceutical companies. Therefore the objective of this study was to examine the impact of macroeconomic, financial performance, market return, and COVID-19 instances on the stocks return of publicly listed pharmaceutical companies. The independent variables of this study were inflation, Return on Equity (ROE), Current Ratio (CR), Total Asset Turn-over (TATO), Deb-to-Equity Ratio (DER), Market Return (MR), and COVID-19 Instances while Stocks Return was the dependent variable. The effects of independent variables on the dependent variable were examined using the statistic t-Test. Statistic testing method was done using statistic software EViews and SPSS. Based on the testing on factors influencing stocks return of publicly traded pharmaceutical companies in Indonesia, this study found: 1) inflation had negative impact on stocks return, 2) ROE had no impact on stocks return, 3) CR had positive impact on Stock Return, 4) TATO had positive impact on Stock Return, 5) DER had no impact on Stock Return, 6) MR had positive impact on Stock Return, and 7) COVID-19 instances had negative impact on stocks return. This study demonstrated that the Efficient Market Hypothesis, Capital Asset Pricing Model, and Signaling Theory were still applicable. Managers should manage working capital and assets properly, investors should appropriately analyze Inflation, Market Return, COVID-19 instances, CR and TATO and Government should wisely manage inflation and prevent more infection of COVID-19.

Keywords: Inflation, Return on Equity, Current Ratio, Total Assets Turn-over, Debt-to-Equity Ratio

INTRODUCTION

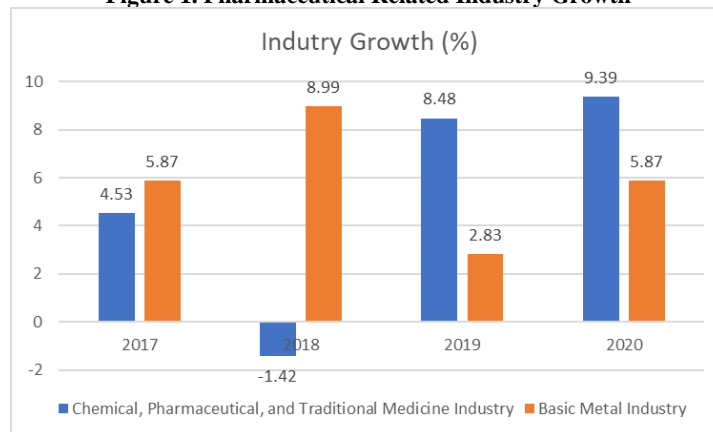
Research Background

Capital market contributed to the economy of Indonesia significantly. Capital market enables investors with extra fund to place it in a variety of assets in the hopes of making a profit. Companies that need fund might use it to advance their projects (Handini & Astawinetu, 2020). The capital market was defined under Law No. 8 of 1995 on Capital Market as an activity including public offering and securities trading. Debt acknowledgements, commercial documents, stocks, bonds, evidence of debt, participation rights in collective investment contracts, contracts for the future delivery of securities, and derivatives of securities are all type of securities.

Stock return is the outcome (profit or loss) of an investment in stocks. Stock returns can be both favorable and negative. Positive would mean making a profit or gaining capital gains, while negative would mean suffering a loss or a capital loss (Hermuningsih et al., 2018). The aim to earn a return in the form of dividends or capital gains, as well as firm ownership, drives investors to participate in the stock market. A greater stock price signifies that the company is worth more (Suhadak et al., 2018).

The pharmaceutical sector is a fascinating one to study because medications (pharmaceuticals) constitute a basic need with a high level of urgency. The COVID-19 pandemic, which began in early 2020, raised the demand for vitamins, supplements, and herbal medications to increase endurance, resulting in significant growth for the pharmaceutical industry (The Ministry of Industry, 2021). The entire market share of the pharmaceutical sector in Indonesia has expanded in recent years, rising from Rp 65.9 trillion in 2016 to Rp 88.36 trillion in 2019, showing an increase in demand and consumption (The Ministry of Industry, 2021). Given that Indonesia has the lowest per capita drug use among ASEAN countries, the pharmaceutical sector is expected to grow at a relatively rapid rate in the country. Figures below describe the Pharmaceutical related Industry growth:

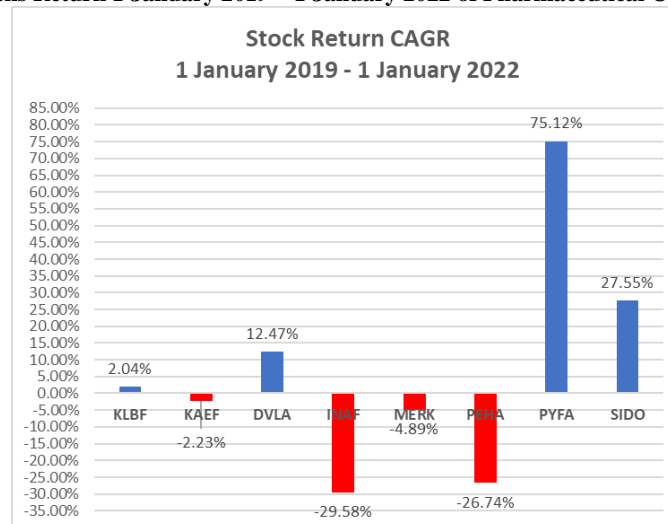
Figure 1. Pharmaceutical Related Industry Growth



Source: The Ministry of Industry of Republic Indonesia (2021) processed

According to the Ministry of Industry of the Republic of Indonesia, the pharmaceutical sector will continue to grow at a reasonable pace. However, as the graph below shows, the stock returns of pharmaceutical companies listed on the Indonesia Stock Exchange (BEI) differ greatly:

Figure 2. CAGR Stocks Return 1 January 2019 – 1 January 2022 of Pharmaceutical Companies Listed in BEI



Source: Yahoo Finance data processed

Some corporations saw positive returns, while others saw negative returns. This sparked an interest in researching the determinants impacting stock returns in pharmaceutical companies listed on the Indonesian Stock Exchange.

Research Problem

Indonesia population is the largest in South-East Asia Indonesia yet have the lowest per capita drug consumption among ASEAN countries (The Ministry of Industry, 2021). It is estimated that pharmaceutical industry in Indonesia will have high growth, however many companies have negative stocks return. The stocks return also vary greatly among the companies. Stocks return were influenced by many factors, previous researches found different conclusions on factors influencing stocks return. There were also limited number of study on the effect of Market Return and COVID-19 on stock returns of pharmaceutical companies. Therefore this study would analyze the impact of macroeconomic, financial performance, market return, and COVID-19 instances on the stocks return of publicly listed pharmaceutical companies in Indonesia.

Research Objectives

The purpose of the research is to analyze (1) the effect of inflation on stocks return, (2) the effect of profitability ratio on stocks return, (3) the effect of liquidity ratio on stocks return, (4) the effect of activity ratio on stocks return, (5) the effect of solvency ratio on stocks return, (6) the effect of Market Return on stocks return, and (7) the effect of COVID-19 instances on stocks return.

Scope of The Study

This study emphasized on the factors affecting stocks returns on pharmaceutical companies listed on the Indonesian Stock Exchange. This study will research dependent and independent variables. Dependent variable is the stocks return of pharmaceutical companies listed on the Indonesian Stock Exchange period 2017Q1-2022Q3. Macroeconomic represented by inflation, profitability

ratio represented by ROE, liquidity ratio represented by CR, activity ratio represented by TATO, solvency ratio represented by DER, Market Return, and COVID-19 instances are the independent variables.

LITERATURE REVIEW

Efficient Market Hypothesis (EMH)

Fama (1965), stated that securities efficient market is where, actual prices at every point in time represent very good estimates of intrinsic value given the available information. Intrinsic value was formed from market convention or equilibrium prices of securities. Fama (1970), defined three forms of market efficiency: strong, semi strong, and weak. Strong Form was when current prices reflect all available information that anyone could possibly know. Semi-Strong was when current prices reflect all data that are available in the public. Weak Form was when current prices reflect only historical prices. Fama (1991), described additional details on Semi-Strong Form, all macroeconomic information that was available should be included.

Capital Asset Pricing Model (CAPM)

According to Gitman and Zutter (2012), the Capital Asset Pricing Model (CAPM) relates expected returns with non-diversifiable risk. Non-diversifiable risk or systematic risk is a factor in the market that impact all companies, diversification has no use to mitigate it. Examples of non-diversifiable risk are inflation, war, the economy condition, international incidents, and political events. Non-diversifiable risk is represented by the beta coefficient. Beta coefficient is an index of the degree of movement of an asset's return in response to a change in the market return. The CAPM equation is as follow:

$$r_j = R_F + [\beta_j \times (r_m - R_F)]$$

r_j = required return on asset j
 β_j = beta coefficient or index of non-diversifiable risk for asset j
 R_F = risk-free rate of return
 r_m = market return

Signaling Theory

According to Spence (1973) in Job Market Signaling, hiring was the investment made under uncertainty. Employer need to obtain information on potential employee, and the potential employee need to send information (give signal) to the employer, which finally decided the wages. According to Ross (1977) who also based his work on Spence (1973) a firm's manager maximizes his incentive return by selecting a financial package and signaling the market.

According to Brigham and Houston (2021) who also based his work on Ross (1977) stated that signaling is a managerial action that provides investors with signals about how management regards the firm's prospects. Symmetric Information is when investors and managers have similar information about firms' prospects. Asymmetric Information is when managers have better information about firms' prospects than the investors.

According to Trisnowati et al. (2022), the signaling theory explains why providing financial statement information to other parties was required. Outsiders tend to set a low price for the company because they have no enough information about the company. Firm can increase their company value by eliminating information asymmetry. Signaling is one technique to reduce information asymmetry.

Stocks Return

Stock Return is the current stock price minus prior stock price and divided by the prior stock price. The stock return is used to determine whether the current stock price has increased or decreased from the previous price (Daniswara & Daryanto, 2020).

Inflation

Inflation is the trend for prices to continuously rise overall and generally, which lowers consumer purchasing power. The amount of real income that investors receive from their investments is reduced by high inflation (Suriyani & Sudiarta, 2018). According to Jabar and Cahyadi (2020) and Utami et al. (2015), Inflation negatively and significantly affected stocks return. In other studies, Simanjuntak (2019) and Hanivah and Wijaya (2018) concluded that Inflation positively and significantly affected stocks return

Financial Performance

One of the things that shows how effective and efficient a company is in achieving its objectives is its financial performance. Financial performance can be represented in the company's published financial statements (Kurniati, 2019; Malau and Murwaningsari, 2018).

According to Gitman and Zutter (2012) and Kowoon et al. (2022), profitability, liquidity, activity, and solvency, can be measured by financial ratios, among others, Return on Equity (ROE), Current Ratio (CR), Total Assets Turnover (TATO), and Debt-to-Equity ratio (DER), respectively.

The financial ratios used in this study are the profitability ratio represented by Return on Equity (ROE), the liquidity ratio represented by Current Ratio (CR), activity ratio represented by Total Assets Turn-over (TATO) and solvency ratio represented by Debt-to-Equity ratio (DER).

Return on Equity (ROE)

Return on Equity (ROE) is a profitability measure that is used to analyze financial statements on the financial performance of a firm. Return on Equity is the ratio of net profit to shareholders equity (Alpi, 2018). This ratio is useful for determining

management's efficiency in managing capital; the higher the ROE, the more efficiently and effectively the company uses its equity; and finally, investor confidence in the capital invested in the company is higher, which can have a positive impact on its share price in the market (Simorangkir, 2019); Kowoon et al. (2022). According to Almira and Wiagustini (2020), Simorangkir (2019), and Devi and Artini (2019), found that ROE significantly affected stocks return. In other studies, Wijaya et al. (2020), Christian et al. (2021), and Aisah and Mandala (2016) found that ROE did not significantly affect stocks return.

Current Ratio (CR)

The current ratio, which compares current assets to current liabilities, is the most generally used indicator to analyze a company's ability to meet short-term obligations. The current ratio measures how well current assets cover current liabilities (Herliana, 2021). According to Christian et al. (2021), Pratama and Erawati (2014), and Amrah and Elwisam (2019), found that CR significantly affected stocks return. In other research, Hasanudin et al. (2020) and Wijaya et al. (2020) found that CR had no influence on stocks return.

Total Assets Turnover (TATO)

Total Assets Turn-over is a ratio used to estimate how well a company's total assets produce sales, or, to put it another way, how many sales will result from each Rupiah invested in total assets (Kahfi et al., 2018). According to Amrah and Elwisam (2019) and Sausan et al. (2020), found that TATO had positive significant effect on stock return. In other research, Kamila (2021) found that TATO did not significantly affect stocks return.

Debt-to-Equity Ratio (DER)

The debt to equity ratio (DER) shows the percentage of funds provided by shareholders to lenders. The higher the ratio, the less funding portion is contributed by shareholders. The smaller the ratio in terms of long-term obligations, the better the company's ability to pay its long-term debts. Greater DER indicates that the total debt (both short-term and long-term) portion has increased more than the amount of own capital (Firdaus & Kasmir, 2021). According to Devi and Artini (2019), Hasanudin et al. (2020), and Latifah and Pratiwi (2019), found that DER negatively and significantly affected stocks return. In other research, Christian et al. (2021) and Fauziah (2020) found that DER has no significant effect on stocks return.

Market Return

Market Return is current JCI minus prior JCI (Jakarta Composite Index) divided by the prior JCI (Daniswara & Daryanto, 2020). Interest of investors in stock market will increase if return in stock market is higher (Thamrin, 2019). According to Arsal (2021) and Thamrin and Sembel (2020), found that Market Return positively and significantly affected stocks return. In other research, Fauziah (2020) found that Market return did not affect stocks return.

COVID-19 Instances

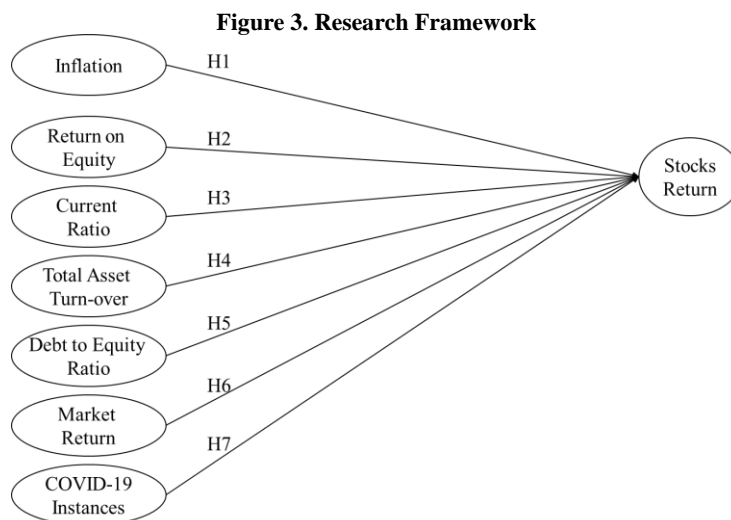
COVID-19 is a coronavirus-caused infectious illness. This unique virus, as well as the illness it causes, were previously unknown. The outbreak began in Wuhan, China, in December 2019 (World Health Organization, 2022). COVID-19 Instances in this research refer to the growth of COVID-19 positive cases (Suhendah & Yonanda, 2022). The research by Ratnaningrum (2022) found that COVID-19 affected stocks return. The research by Nurcahyono et al. (2021) and Suhendah and Yonanda (2022) found that COVID-19 negatively affected stocks return.

Hypotheses and Framework

Hypotheses in this study was developed on the research objectives outlined previously and referred by the previous literatures.

- Study by Priyambudi and Thamrin (2021) concluded that inflation affected stocks return. Geriadi and Wiksuana (2017) and Jabar and Cahyadi (2020) found that inflation negatively affected stocks return. Therefore, *H₁: Inflation negatively impacts stocks return.*
- The study by Simorangkir (2019) found that ROE affected stocks return. Latifah and Pratiwi (2019) and Dewanti et al. (2019) found ROE impacted stocks return positively. Therefore, *H₂: ROE positively impacts stocks return.*
- The study by Hasanudin et al. (2020), Pratama and Erawati (2014) and Latifah and Pratiwi (2019) concluded that CR positively affected stocks return. Christian et al. (2021) found that CR significantly affected stocks return. Therefore, *H₃: CR positively impacts stocks return.*
- The study from Sausan et al. (2020) found that TATO affected stock return positively. Amrah and Elwisam (2019) found that TATO positively affected stocks price. Therefore, *H₄: TATO positively impacts stocks return.*
- The study by Devi and Artini (2019), Hasanudin et al. (2020), and Latifah and Pratiwi (2019) found that DER negatively affected stocks return. Therefore, *H₅: DER negatively impacts stocks return.*
- The study by Thamrin (2019), Daniswara and Daryanto (2020), and Arsal (2021) concluded that Market Return has positive effect on Stocks Return. Therefore, *H₆: Market Return positively impacts stocks return.*
- The study by Ratnaningrum (2022) found that COVID-19 affected stocks return. Nurcahyono et al. (2021) and Suhendah and Yonanda (2022) found that COVID-19 negatively affected stocks return. Therefore, *H₇: COVID-19 instances negatively impacts stocks return.*

Based on the research objectives, previous studies and hypotheses development above, the research framework of this study was the following:



RESEARCH METHODOLOGY

This study will employ a quantitative method to examine the causality relationship. Causal studies investigate whether one variable impacts another. Quantitative research usually uses explanatory design, where the object of explanatory research is to test the relationship between the hypothesized variables (Mulyadi, 2011). Both positive and negative relationships between factors are possible. A relationship between two variables is said to be positive if both variables move in the same way. A relationship between two variables is said to be negative if both variables move in the opposite way (Thamrin, 2019).

Research Object

Based on previous discussion on research objectives and hypotheses developed, this research will study all the pharmaceutical companies listed in Indonesian Stock Exchange with 7 independent variables, i.e., Inflation, ROE, CR, TATO, and DER, Market Return, and COVID-19 Instances and 1 dependent variables, i.e., Stocks Return.

Population and Sample

Population in this study were all the companies listed on Indonesia Stock Exchange period 2017 to 2022. Purposive sampling is the technique that would be used to choose the sample. Purposive sampling referred to a non-probability samples that were chosen based on a population's characteristics and the goal of the study. The sample's selection criteria are: (1) Companies listed on BEI in the period of 2017Q1 – 2022Q3 in Pharmaceutical industry; (2) Companies which stocks is actively traded up to the end of 2022Q3; and (3) Companies which are providing financial reports publicly.

Measurement of Variables

The variables used in this study are Inflation, ROE, CR, TATO, DER, Market Return, and COVID-19 Instances as independent variables and Stocks Return as dependent variable.

Table 1. Variables Used in the Study

Variable	Formula	Remarks
Stocks return (As refer to Daniswara and Daryanto (2020))	$Stocks\ Return_t = \frac{P_t - P_{t-1}}{P_{t-1}}$	Stocks Return _t = Stocks Return on period of t time P _t = Stock Price at period t P _{t-1} = Stock Price at period t-1
Inflation (As refer to Suriyani and Sudiarta (2018))	$Inflation_t = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}}$	Inflation _t = Inflation on period of t time CPI _t = Consumer Price Index at period t CPI _{t-1} = Consumer Price Index at period t-1
ROE (As refer to Alpi (2018))	$ROE_t = \frac{Net\ Income_t}{Shareholder\ Equity_t}$	ROE _t = Return on Equity at the period of t Net Income _t = Net Income at period t Shareholders' Equity _t = Shareholders' of Equity period t
CR (As refer to Herliana (2021))	$CR_t = \frac{Current\ Assets_t}{Current\ Liability_t}$	CR _t = Current Ratio at period t t = Period t
TATO (As refer to Amrah and Elwisam (2019))	$TATO_t = \frac{Sales_t}{Total\ Assets_t}$	TATO _t = Total Assets Turn-over at period t t = Period t
DER (As refer to Firdaus and Kasmir (2021))	$DER_t = \frac{Total\ Debt_t}{Total\ Equity_t}$	DER _t = Debt to Equity Ratio at period t t = Period t
Market Return	$MR_t = \frac{JCI_t - JCI_{t-1}}{JCI_{t-1}}$	MR _t = Market Return at period t JCI _t = Jakarta Composite Index at period t

(As refer to Daniswara and Daryanto (2020))		JCI _{t-1} = Jakarta Composite Index at period t -1
COVID-19 Instances (As refer to Suhendah and Yonanda (2022))	$\Delta C19_t = C19_t - C19_{t-1}$	$\Delta C19$ = COVID-19 Positive Case Growth C19 = Number of COVID-19 Positive Case t = period t

Data Collection Technique

The source of data for this research is provided by secondary sources, as follows: (1) Inflation data source was from the Bank of Indonesia's website, (2) Market Return and Stocks Return data source was from Yahoo Finance's website, (3) COVID-19 Instances data source was from the Ministry of Health, (4) Financial Information data source was from the financial statements provided in the IDX' website. The data are quantitative and will be processed quantitatively.

Data Analysis Method

The acquired data are statistically examined in the data analysis process to see whether the defined hypotheses have been supported. Hypotheses testing will be done by statistical analysis (Bougie & Sekaran, 2019). In this research, the effects of inflation, ROE, CR, TATO, DER, Market Return, and COVID-19 Instances will be tested using statistic tools EViews and SPSS. Statistical t-test would be used to examine the impact of independent variables to dependent variable. Since t-test would be used, Panel Data Regression, Regression Panel Model Selection, and Classical Assumption Test need to be performed (Basuki & Prawoto, 2016).

- Panel Data Regression. There were 3 approaches to estimate the panel data model, namely, Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).
- Regression Panel Model Selection. There were several tests to be completed: Chow Test, Hausman Test, and Lagrange Multiplier Test.
- The classical assumption test is a statistical condition that must be met in multiple linear regression studies using ordinary least squares regression (OLS). Classical assumption tests that were used were normality test, multicollinearity test, heteroscedasticity test and autocorrelation test.

FINDING AND ANALYSIS

Data Observed

The data consist of quarterly time period from 2017Q1 – 2022Q3 or 23 periods of 9 companies. The 9 companies are as follow: (1) PT Darya Varia Laboratoria Tbk (DVLA), (2) PT Indofarma Tbk (INAF), (3) PT Kimia Farma Tbk (KAEF), (4) PT Kalbe Farma Tbk (KLBF), (5) PT Merck Tbk (MERK), (6) PT Phapros Tbk (PEHA), (7) PT Pyridam Farma (PYFA), (8) PT Industri Jamu dan Farmasi Sido Muncul Tbk (SIDO), (9) PT SOHO Global Health Tbk (SOHO).

Regression Model Selection

Chow Test, Hausman Test, and LM Test has been performed with the following result:

- Chow Test resulted with p-value > 0.05 which meant CEM was better than FEM.
- Hausman Test resulted with p-value < 0.05 which meant FEM was better than REM.
- LM Test resulted with p-value > 0.05 which meant that CEM was better than REM.

CEM was selected for the regression model since CEM was better than FEM and REM.

Classical Assumption Test

- Normality Test had been performed using the Jarque-Bera method with result p-value > 0.05, which meant that data distributed normally.
- Multicollinearity Test had been performed using Variance-Inflation-Factor (VIF) with result of each variable had VIF below 10 meaning that there were no Multicollinearity.
- Heteroskedasticity Test had been performed using White Test with result p-value < 0.05, then heteroskedasticity was detected. Since heteroskedasticity is detected, Generalized Least Square (GLS) method shall be used (Gujarati, 2003). GLS method address the heteroskedasticity by using the matrix variance-covariance.
- Autocorrelation Test had been performed using Durbin-Watson method with value of 2.13 which meant no autocorrelation since it lied between dU and 4-dU.

F-test and R2

- P-Value F-Test resulted 0.000051, <0.05, meaning that all independent variables simultaneously has significant effect on the dependent variable.
- R² resulted 0.1346, meaning that all independent variables simultaneously can explain the dependent variable by 13.46%, the rest was explained by other factors.

t-Test Result and Analysis

The t-test shows how the individual independent variable impact the dependent variable's changes. The result for the t-test are as follows:

Table 2. t-Test Result

No	Variables	Coefficient	t-value	P-Value ^{a)}
1	Inflation	-2.36257	-2.675568	0.0041***
2	ROE	0.04365	0.260392	0.39745
3	CR	0.014382	1.97766	0.0496**
4	TATO	0.194417	1.649516	0.05045*
5	DER	-0.00302	-0.246337	0.8057
6	MR	0.445054	3.798091	0.0001***
7	Covid-19 Instances	-2.58	-1.395894	0.0823*

^{a)} P-Value < 0.01 = Highly Significant***, 0.01-0.05 = Significant**, 0.05-0.1 = Marginally Significant*

Source: Author, data processed (2023)

Table 2 showed that five (5) variables impacted Stocks Return while the other two (2) did not have any impact to Stocks Return. Inflation, CR, TATO, MR, and COVID-19 Instances individually impacted the Stocks Return, while ROE and DER did not have impact on Stocks Return.

Inflation has negative impact on Stock Return, meaning that the stocks return will be lower when there is a higher inflation. This result aligned with the study of Jabar and Cahyadi (2020), Geriadi and Wiksuana (2017), and Utami et al. (2015) that concluded Inflation negatively impacted Stock Return. This result also support the Effective Market Hypothesis (EMH) theory where stocks return impacted by available information. Investor should be more careful when assessing inflation in determining investment decision.

ROE did not impact stocks return. This result aligned with the study of Christian et al. (2021) and Aisah and Mandala (2016) that concluded ROE had no effect on Stock Return. Investment decision was not impacted by the level of equity used to generate profit.

CR positively impacted stocks return. This result aligned with the study of Hasanudin et al. (2020), Pratama and Erawati (2014) and Latifah and Pratiwi (2019) that concluded CR had positive effect on Stock Return. CR that is higher will give more ability for the company to make repayment of its short-term liabilities and it will attract investors to invest in the company stocks. This also support EMH and Signaling Theory since stocks return influenced by information generated by the companies. Management should have good working capital practice to produce higher CR.

TATO has positive impact on stocks return. This result aligned with the study of Amrah and Elwisam (2019) and Sausan et al. (2020) that concluded TATO positively affected stocks return. Investment decision was impacted by how well the utilization of assets to generate sales. This also aligned with EMH Theory and Signaling Theory since stocks return influenced by information generated by the companies. Management should utilize assets more effectively to generate more sales.

DER did not impact stocks return. This result aligned with the study of Christian et al. (2021) and Fauziah (2020) that concluded that DER had no effect on stock return. Investment decision was not impacted by the low / high of debt compared to the equity.

MR impacted stocks return positively. This result aligned with the theory of Capital Assets Pricing Model (CAPM) that stated market return impacted stocks return. This result also aligned with the study of Thamrin (2019), Daniswara and Daryanto (2020), and Aرسال (2021) that concluded MR had positive effect on stock return. Investor should assess market return trend appropriately in order to invest in the stocks in the pharmaceutical sector.

COVID-19 Instances impacted stocks return negatively. This result supported the studies of Nurcahyono et al. (2021); Suhendah and Yonanda (2022); Utomo and Hanggraeni (2021); and Lee et al. (2021), which stated that COVID-19 had negative impact on stock returns. This also supported EMH Theory since stocks return was influenced by the information available in the market. Investors should be more careful in making investment when the COVID-19 cases is surging.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The conclusions that can be made from this study are the following: (1) Inflation has negative impact on Stocks Return, (2) ROE of profitability ratio has no impact on Stocks Return, (3) CR of liquidity ratio has positive impact on Stocks Return, (4) TATO of activity ratio has positive impact on Stocks Return, (5) DER of solvency ratio has no impact on Stocks Return, (6) Market Return has positive impact on Stocks Return, (7) COVID-19 Instances has negative impact on Stocks Return.

Implications

The implications of the study are as follows:

- Theoretical implications:** this research support (a) EMH as the financial information disclosed by the companies influenced stocks return. Stocks return were also affected by the availability of information such as inflation, market return, and COVID-19 Instances, (b) Signaling theory as financial information disclosed by the companies influenced stocks return, (c) Capital Asset Pricing Model as market return positively impacted stocks return.
- Practical implications:** (a) Managers should manage its working capital well to generate higher Current Ratio as it impacted stocks return positively, (b) Managers should utilize its assets more effectively to generate sales as Total Asset Turn-over

affected stocks return positively, (c) Investors should appropriately assess Inflation, Market Return, COVID-19 Cases, CR and TATO since they impacted Stocks Return significantly.

3. **Policy implications:** (a) Government should wisely manage inflation since higher inflation can cause lower return to investors, (b) Government should prevent more infection of COVID-19 as it affects stocks return negatively.

Limitations

This study has some limitations on its research: (1) ROE, CR, TATO, and DER are the only financial ratios used in this study while there are many other financial ratios that can be used for the study such as Return of Assets, Quick Ratio, Inventory Turn-over, and Debt to Assets Ratio, (2) Macroeconomic variable used in this study are only inflation. There are many other variables of macroeconomics that are not used, such as GDP, Exchange Rate and Interest Rate, (3) The result of this study is not necessarily apply to sector other than Pharmaceutical sector.

Recommendations for further research

This study also has some recommendations for further research: (1) Further researchers are encourage to research other companies in other sectors, (2) Further study are encourage to cover different period even the period that is more recent, (3) Other researchers are encourage to use other financial ratio as independent variables to measure financial performance such as ROA, Quick Ratio, Inventory Turn-over, and DAR, (4) Other researchers are encourage to extend the research to use GDP, Exchange Rate and Interest Rate, (5) Other researchers are encourage to extend the research to include COVID-19 death and hospitalization.

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