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The Effect of Sales Growth and Total Asset Turnover (Tato) on Stock Return at PT. Kimia Farma TBK.

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Abstract

This study aims to determine the effect of Sales Growth and Total Asset Turnover (TATO) on Stock Return at PT. Kimia Farma Tbk for the period 2014–2023. The research method used is quantitative with an associative approach, using secondary data in the form of the company's annual financial statements. The analysis technique applied is multiple linear regression with classical assumption test, t test, F test, correlation coefficient, and determination. From the results of the determination coefficient test, R Square (Coefficient of Determination) was obtained, the value of R Square stated in the table was 0.347. This shows that the magnitude of the influence of sales growth (X1) and TATO (X2) on Stock Return is 0.34% and the remaining 0.64% is influenced by other variables that are not included in this study. Thus, it can be concluded that together sales growth (X1) and TATO (X2) do not have a significant influence on stock returns (Y). This finding concludes that Sales Growth and Total Asset Turnover (TATO) have no effect on the Stock Return at PT. Kimia Farma Tbk. Therefore, the company needs to consider other factors such as marketing and sales strategies, efficient asset management, product and service development (including digitalization), and optimization of retail outlet networks, clinics, and laboratories in improving profit performance in the future.

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1. Introduction

The development of companies in Indonesia, particularly in the pharmaceutical sector, has resulted in increasingly intense competition among companies. Pharmaceutical companies are not only required to produce and distribute healthcare products but also need to maintain business sustainability through effective management of financial resources. The pharmaceutical industry has a strategic role in supporting public health because companies operating in this sector are directly involved in providing medicines and healthcare products needed by society. Therefore, pharmaceutical companies must continuously improve operational efficiency, financial performance, and competitiveness to survive in a dynamic business environment (Muhklis et al., 2025).

One of the pharmaceutical companies that plays an important role in Indonesia's healthcare industry is PT Kimia Farma Tbk. As a pharmaceutical company, PT Kimia Farma Tbk faces challenges in maintaining business continuity amid increasing competition, changes in market conditions, and demands for operational efficiency. The ability of a company to survive is closely related to its financial performance because financial performance reflects the company's ability to manage resources, generate profits, and create economic value for stakeholders. Companies with strong financial performance generally have better opportunities to attract investors because financial information becomes one of the main considerations in investment decisions (Rahim et al., 2025).

Financial performance is an important aspect in evaluating the condition and development of a company. Financial performance provides information regarding the effectiveness of management in managing company resources and achieving organizational objectives. Through financial performance analysis, companies can evaluate operational effectiveness, identify financial problems, and formulate appropriate strategies for future improvement. Financial ratio analysis is commonly used to measure financial performance because it provides information

regarding profitability, asset utilization efficiency, liquidity, and financial stability (Alvian et al., 2026).

The main objective of establishing a company is generally to generate profit and increase company value. Profitability represents the company's ability to generate profits through the utilization of available resources. A company that is able to maintain stable profitability indicates effective operational management and efficient utilization of assets. Therefore, profitability indicators are widely used by investors and management to evaluate company performance and future prospects (Rahim et al., 2025).

One of the commonly used profitability indicators is Return on Assets (ROA). ROA measures the ability of a company to generate net income from its total assets. A higher ROA indicates that the company is more efficient in utilizing its assets to generate profits. Conversely, a declining ROA indicates that the company may experience difficulties in optimizing its resources. In pharmaceutical companies, asset efficiency and profitability are important because pharmaceutical businesses generally require substantial investment in production facilities, research activities, distribution networks, and operational infrastructure (Karim et al., 2023; Rahim et al., 2025).

The management capability to maintain and improve profitability is an important factor influencing investor confidence. Investors generally evaluate financial performance indicators before making investment decisions because profitability provides information regarding the company's ability to generate future returns. However, investment decisions are not only influenced by profitability but also by other financial factors, such as capital structure, asset efficiency, company growth, and market expectations (Muhklis et al., 2025).

In addition to profitability, company value can also be influenced by capital structure decisions and asset utilization efficiency. Capital structure reflects the proportion of funding sources obtained from debt and equity. An inappropriate capital structure may increase financial risk and affect company performance. Therefore, companies need to maintain an optimal balance between external financing and internal resources to support sustainable growth (Muhklis et al., 2025).

Another important factor related to financial performance is Total Asset Turnover (TATO). TATO measures the effectiveness of company assets in generating sales. A higher TATO indicates that assets are utilized efficiently to support revenue generation, while a lower TATO indicates that company assets may not be used optimally. Previous research shows that asset turnover has an important relationship with profitability because efficient asset management can improve the company's ability to generate earnings (Karim et al., 2023).

PT Kimia Farma Tbk is one of the pharmaceutical companies that continues to develop its business through strengthening operational performance and improving company value. However, maintaining company growth is not always easy because companies face various challenges, including fluctuations in sales, changes in asset structure, competition in the pharmaceutical industry, and changes in investor perceptions. These conditions demonstrate that increasing company value requires not only sales growth but also effective financial management through profitability improvement, efficient asset utilization, and appropriate financing decisions (Rahim et al., 2025; Muhklis et al., 2025).

PT Kimia Farma Tbk is one of the oldest pharmaceutical companies in Indonesia with a long history in supporting the development of the national pharmaceutical industry. The company was initially established during the Dutch colonial period in 1817 under the name NV Chemicalien Handle Rathkamp & Co. Following the nationalization policy of Dutch-owned companies after Indonesian independence, the company underwent several transformations until it became PT Kimia Farma (Persero) Tbk. On July 4, 2001, PT Kimia Farma became a publicly listed company on the Indonesia Stock Exchange, allowing public investors to participate in the company's ownership. The company's historical development demonstrates its strategic role in the pharmaceutical industry and its continuous adaptation to changes in the business environment (PT Kimia Farma Tbk, 2024).

To evaluate the development of PT Kimia Farma Tbk, an analysis of sales, total assets, and stock prices during the 2019–2023 period is required. These indicators provide an overview of the company's operational performance, resource management capability,

and market response toward company performance. Financial statement analysis through sales growth, asset changes, and profitability indicators is commonly used to evaluate whether companies are able to utilize resources effectively and generate sustainable financial performance (Alvian et al., 2026).

Based on Table 1, PT Kimia Farma Tbk's sales showed fluctuations during the 2019–2023 period. Sales increased from IDR 9.400.535.476 thousand in 2019 to IDR 10.006.173.023 thousand in 2020. This increase occurred during the COVID-19 pandemic period when demand for pharmaceutical products, healthcare equipment, and medical-related products increased significantly. The growth in sales indicates the company's ability to respond to market opportunities during a period of high healthcare demand.

However, after experiencing growth, sales performance experienced fluctuations in subsequent years. Sales increased again in 2021 to IDR 12.857.626.593 thousand but declined significantly in 2022 to IDR 9.606.145.359 thousand before slightly increasing to IDR 9.965.033.049 thousand in 2023. These fluctuations indicate that maintaining revenue growth in the pharmaceutical industry requires effective operational strategies, market adaptation, and efficient resource management. Previous research indicates that pharmaceutical companies in Indonesia face challenges in maintaining sustainable financial performance due to changes in market conditions, operational efficiency requirements, and financial management decisions (Rahim et al., 2025).

The development of total assets of PT Kimia Farma Tbk also showed changes during the observation period. Total assets increased from IDR 11.008.090.009 thousand in 2019 to IDR 19.797.322.545 thousand in 2022. The increase in assets indicates that the company expanded its resource capacity through investment activities, business development, and asset acquisition. However, total assets decreased in 2023 to IDR 17.585.297.583 thousand. Changes in asset value need to be analyzed further because increasing asset value does not always directly indicate improved profitability if assets are not utilized efficiently.

Asset utilization efficiency can be measured through the Total Asset Turnover (TATO) ratio. TATO reflects the company's ability to generate sales from its available assets. A company with a high asset turnover ratio indicates efficient utilization of resources, while a declining ratio may indicate that assets are not optimally contributing to revenue generation. Therefore, asset growth should be accompanied by improvements in operational efficiency to increase profitability (Karim et al., 2023).

Furthermore, PT Kimia Farma Tbk's stock price movements during 2019–2023 showed significant volatility. The stock price increased substantially from IDR 1,625 in 2019 to IDR 4,250 in 2020. This increase occurred during the COVID-19 pandemic period when pharmaceutical companies received strong market attention due to their involvement in healthcare product supply and pandemic-related activities. However, after reaching its peak in 2020, the stock price declined continuously to IDR 1,745 in 2021, IDR 1,060 in 2022, and IDR 730 in 2023.

The decline in stock prices despite the company's asset growth and sales performance indicates that stock market performance is influenced by various factors beyond operational performance. Stock prices reflect investor expectations regarding future company prospects, profitability sustainability, business risks, and external market conditions. Therefore, stock return analysis needs to consider both financial performance indicators and market responses because investors evaluate companies based on their ability to generate future economic benefits (Rofi'i et al., 2025).

The fluctuation of PT Kimia Farma Tbk stock prices also indicates that increases in sales and assets do not automatically result in positive market responses. Investors tend to consider the quality and sustainability of financial performance rather than only observing the growth of company size. Profitability, financial structure, and efficiency in asset management become important factors influencing investor perceptions of pharmaceutical companies (Muhklis et al., 2025; Rahim et al., 2025).

Based on the analysis of PT Kimia Farma Tbk's financial data, there is an indication of a difference between operational performance and market performance. The company experienced asset growth and sales improvement during several periods; however, stock price movements showed high volatility.

This condition illustrates that financial performance evaluation requires a comprehensive approach involving profitability analysis, asset efficiency, capital structure evaluation, and stock market response.

Therefore, analyzing financial performance through indicators such as sales growth, Total Asset Turnover (TATO), profitability, and stock return becomes important to understand the financial condition of PT Kimia Farma Tbk. Such analysis can provide valuable information regarding the effectiveness of company resource management and how financial performance is reflected in investor responses in the capital market (Rahim et al., 2025; Rofi'i et al., 2025).

2. Literature Review

2.1 Sales Growth

Sales growth is an important indicator used to evaluate company performance because sales represent the main source of operating revenue generated from business activities. The ability of a company to increase sales reflects its capability to expand market opportunities, maintain customer demand, and strengthen business sustainability. Continuous sales growth provides opportunities for companies to improve operational performance and increase profitability because higher revenue growth may support the generation of greater earnings (Rahim et al., 2025; Djaya & Firdausy, 2023).

Sales growth describes the change in company sales achieved during a certain period compared with the previous period. This indicator reflects the company's ability to maintain revenue growth and expand business activities. A positive sales growth value indicates that the company has succeeded in increasing its sales performance, whereas negative sales growth indicates a decline in revenue generation. Therefore, sales growth is frequently used as one of the important financial indicators to assess company development and future performance prospects (Ningsih & Noviari, 2022; Djaya & Firdausy, 2023).

Sales growth has an important relationship with financial performance because increasing sales can provide greater opportunities for companies to generate profits. However, increasing sales does not automatically guarantee improved profitability because companies must also manage operational costs, asset utilization, and financial resources efficiently. Previous studies indicate that sales growth influences profitability because companies that are able to maintain revenue growth tend to have greater opportunities to improve financial performance (Karim et al., 2023; Wangi, 2025).

In the pharmaceutical industry, sales growth has strategic importance because companies face dynamic market conditions, increasing competition, changes in healthcare demand, and operational challenges. Pharmaceutical companies need to maintain sales growth while improving operational efficiency and financial management to achieve sustainable performance. Research on pharmaceutical companies listed on the Indonesia Stock Exchange shows that sales growth is an important factor associated with profitability and financial performance (Djaya & Firdausy, 2023; Muhklis et al., 2025).

Sales growth must also be evaluated together with other financial indicators because revenue growth alone does not fully describe the financial condition of a company. Companies with increasing sales but inefficient cost structures may not achieve optimal profitability. Therefore, sales growth analysis should be integrated with profitability analysis, asset efficiency, and financial structure evaluation to obtain a comprehensive assessment of company performance (Karim et al., 2023; Rahim et al., 2025).

Based on the explanation above, sales growth can be defined as a financial ratio that measures the percentage change in company sales between the current period and the previous period. Sales growth reflects the company's ability to increase revenue and maintain business expansion. In this study, sales growth is used as an independent variable to analyze its relationship with the financial performance of PT Kimia Farma Tbk during the 2019–2023 period.

2.2 Return Saham

Stock return is one of the important indicators used by investors to evaluate the performance of an investment in the capital market. Stock return represents the level of profit or loss obtained by investors from holding shares during a certain period. The return received by investors becomes compensation for the risks taken when investing because investment activities always involve uncertainty regarding future benefits.

Therefore, investors generally consider expected return and investment risk simultaneously before making investment decisions (Faizaturrahmi & Handajani, 2024).

Stock return reflects the economic benefits obtained by shareholders from investment activities. A higher stock return indicates that investors obtain greater benefits from their investment, while a negative return indicates that investors experience losses due to declining stock prices. Stock return is influenced by various factors, including company financial performance, market conditions, investor expectations, and industry characteristics (Sinaga & Tewu, 2023).

In general, stock return consists of two main components: capital gain (or capital loss) and dividend yield. Capital gain occurs when investors sell shares at a price higher than the purchase price, resulting in a positive difference between the selling price and buying price. Conversely, investors experience capital loss when the selling price of shares is lower than the purchase price. In addition, investors may receive dividend income as a form of return from company profit distribution. These components represent the total return obtained by investors from share ownership (Faizaturrahmi & Handajani, 2024).

Capital gain is closely related to changes in stock prices, which are influenced by investor perceptions regarding company prospects and financial performance. Companies that demonstrate good financial performance tend to receive positive responses from investors because strong fundamentals provide signals regarding future business prospects. Conversely, declining financial performance may reduce investor confidence and negatively affect stock market valuation (Rofi'i et al., 2026).

Financial performance indicators such as profitability, asset utilization efficiency, and company value are important factors that may influence stock return. Companies with better financial performance have greater opportunities to attract investors because financial information provides signals regarding the company's ability to generate future economic benefits. Research on pharmaceutical companies in Indonesia indicates that financial performance and market value are important factors associated with stock return performance (Rofi'i et al., 2026).

In the pharmaceutical industry, stock return analysis is important because pharmaceutical companies face dynamic market conditions, regulatory changes, competition, and fluctuations in business performance. Investors evaluate not only revenue growth but also profitability, financial stability, and future growth prospects when assessing pharmaceutical company stocks. Therefore, stock return can be used as an indicator to evaluate how the capital market responds to company performance (Sinaga & Tewu, 2023).

Stock return is generally calculated by comparing the change in stock price between the current period and the previous period, including dividend income received during the investment period. This measurement provides information regarding the investment benefits obtained by shareholders during a specific period (Faizaturrahmi & Handajani, 2024).

2.3 The Effect of Sales Growth on Return Saham

Sales growth reflects the company's ability to increase revenue through improved sales performance over time. Positive sales growth indicates that the company has the ability to expand market opportunities, maintain customer demand, and strengthen business sustainability. Continuous sales growth may provide positive signals to investors regarding future profitability prospects because increasing revenue creates opportunities for companies to improve financial performance (Djaya & Firdausy, 2023; Rahim et al., 2025).

However, sales growth does not always directly result in increased stock returns because investors also consider other fundamental factors, such as profitability, earnings quality, financial stability, and risk management practices. Companies with strong financial performance and transparent financial information tend to gain greater investor confidence, which may influence market responses toward company shares (Ningsih & Noviari, 2022; Yasri et al., 2023). Income Journal

Previous studies have shown different findings regarding the effect of sales growth on stock returns. Some studies indicate that sales growth influences market performance because revenue growth reflects future business prospects, while other studies show that sales growth does not always affect stock

returns due to differences in industry characteristics and investor responses. Based on these previous findings, the hypothesis proposed in this study is:

H1: Sales growth affects stock returns.

2.4 The effect of Total Asset Turnover (TATO) on Stock Return

Total Asset Turnover (TATO) measures the efficiency of a company in utilizing its total assets to generate sales. A higher TATO indicates that the company is able to utilize its resources effectively to support revenue generation. Efficient asset utilization reflects better operational management and may provide positive information to investors regarding company performance (Karim et al., 2023).

The efficiency of asset utilization is an important consideration for investors because companies that are able to manage assets effectively generally have better prospects for generating sustainable earnings. Financial performance information, including profitability and operational efficiency, becomes an important basis for investors in assessing company prospects and investment risks (Utami & Budiantara, 2024).

Previous studies have shown inconsistent results regarding the relationship between TATO and stock returns. Some studies indicate that TATO affects stock returns because efficient asset utilization improves financial performance, while other studies find that TATO does not significantly influence stock returns due to differences in market expectations and company characteristics. Based on these previous findings, the hypothesis proposed in this study is:

H2: Total Asset Turnover (TATO) affects stock returns.

2.5 The Effect of GrowthSales and TATO on Stock Returns

Sales growth and Total Asset Turnover represent two important dimensions of company performance because they reflect business expansion and operational efficiency. Sales growth indicates the company's ability to increase revenue, while TATO demonstrates how effectively the company utilizes assets to support sales activities. A combination of increasing sales growth and efficient asset utilization provides stronger evidence of sustainable company performance (Karim et al., 2023; Rahim et al., 2025).

From an investor perspective, stock returns are influenced not only by company growth but also by fundamental financial conditions and market risk. Investors evaluate financial information, profitability, efficiency, and risk factors before determining investment decisions. Therefore, the combination of sales growth and TATO can provide a more comprehensive picture of company performance and its potential impact on stock returns (Rais et al., 2024). Income Journal

Based on previous empirical findings, some studies indicate that sales growth and asset efficiency influence stock returns, while other studies report insignificant effects due to variations in market conditions and investor behavior. Therefore, this study proposes the following hypothesis:

H3: Sales growth and Total Asset Turnover (TATO) affect stock returns.

3. Research Methods

3.1 Research Design and Data Source

This study employs a quantitative approach with a causal research design. The quantitative approach is applied because the variables investigated in this study are measured using numerical data obtained from financial reports and stock market information. Quantitative research enables researchers to analyze relationships among variables objectively through statistical procedures and hypothesis testing. The causal research design is used to examine the effect of independent variables on dependent variables by identifying the extent to which changes in predictor variables explain variations in the dependent variable (Variyath & Brobbey, 2020).

This study aims to examine the effect of Sales Growth and Total Asset Turnover (TATO) on Stock Returns of PT Kimia Farma Tbk. The research uses secondary data obtained from annual financial reports and historical stock price data of PT Kimia Farma Tbk during the period 2019–2023. Secondary financial data are appropriate for empirical accounting and financial research because they provide measurable information regarding company performance and enable statistical evaluation of relationships among financial indicators (Snyder, 2019).

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The research design is structured based on a causal relationship framework, where Sales Growth and Total Asset Turnover (TATO) are positioned as independent variables, while Stock Return is used as the dependent variable. This model is developed based on the assumption that changes in company financial performance may influence investors' perceptions and market valuation. Financial performance indicators obtained from financial statements are frequently used in empirical studies because they provide objective measurements of company conditions and allow researchers to evaluate the relationship between accounting information and capital market responses (Al-Matari et al., 2019).

The selection of PT Kimia Farma Tbk as the research object is based on the company's position as one of the largest pharmaceutical companies listed on the Indonesia Stock Exchange. Pharmaceutical companies have unique characteristics because their financial performance is influenced by operational efficiency, healthcare demand, regulatory conditions, and market dynamics. Therefore, analyzing financial indicators such as Sales Growth and Total Asset Turnover (TATO) provides insight into whether internal company performance indicators are reflected in stock market performance (Rahim et al., 2025).

The observation period from 2019 to 2023 was selected because this period represents significant changes in the pharmaceutical industry due to the COVID-19 pandemic and post-pandemic economic adjustments. During this period, pharmaceutical companies experienced changes in market demand, operational activities, and investor expectations. The use of a specific observation period allows this study to examine how financial performance indicators relate to stock return movements under changing economic conditions (Rofi'i et al., 2026).

3.2 Data Collection and Variable Measurement

The data collection technique used in this study was documentation. Documentation involves collecting information from existing records, annual reports, financial statements, and official company documents related to the research object. This method is commonly applied in quantitative financial research because documented secondary data provide objective information that can be analyzed statistically (Snyder, 2019). Secondary data obtained from financial statements are widely used in accounting and finance research because they provide historical information regarding company performance and enable researchers to examine relationships among financial variables using statistical methods (Sekaran & Bougie, 2019).

The collected data consisted of sales revenue, total assets, and stock prices of PT Kimia Farma Tbk. These data were used to measure three research variables: Sales Growth as the first independent variable (X1), Total Asset Turnover (TATO) as the second independent variable (X2), and Stock Return as the dependent variable (Y). The use of annual financial reports and stock market data allows researchers to evaluate the relationship between internal company performance and market responses because financial statements contain standardized information regarding profitability, operational activities, and financial position.

Sales Growth measures the percentage change in company sales between the current period and the previous period. This measurement is used to assess the company's ability to increase revenue generated from operational activities over time. Sales growth is considered an important indicator of company development because continuous growth reflects the company's ability to expand

markets and maintain business performance. However, sales growth should be analyzed together with other financial indicators because increased revenue does not always result in increased profitability or shareholder value (Nugroho et al., 2023).

Total Asset Turnover (TATO) is used to measure the effectiveness of company assets in generating sales. This ratio describes how efficiently a company utilizes its total assets to support operational activities. A higher TATO value indicates that the company is able to generate greater sales from its available assets. However, asset efficiency needs to be interpreted together with other financial indicators because operational efficiency does not always directly influence market performance (Karim et al., 2023).

Stock Return is measured based on changes in stock prices during the observation period. Stock return represents the benefits obtained by investors from investment activities and is commonly used as an indicator of capital market performance. Historical stock price information is frequently analyzed in financial research because it reflects investor responses to company performance, market expectations, and economic conditions (Faizaturrahmi & Handajani, 2024).

$$SG = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}} \times 100\%$$

Total Asset Turnover (TATO) measures the effectiveness of asset utilization in generating sales. The formula is:

$$\text{TATO} = \frac{\text{Sales}}{\text{Total Assets}}$$

Stock Return measures the return obtained by investors from stock ownership during a certain period. The formula is:

$$SR = \frac{P_t - P_{t-1} + D_t}{P_{t-1}} \times 100\%$$

where:
(P_t) = stock price at the end of the current period
(P_{t-1}) = stock price at the beginning of the period
(D_t) = dividend received during the period

3.3 Data Analysis Technique

The collected data were analyzed using statistical procedures with the assistance of SPSS software. Multiple linear regression analysis was applied to examine the effect of Sales Growth and Total Asset Turnover (TATO) on Stock Returns. Multiple regression analysis is used to evaluate the relationship between several independent variables and one dependent variable and to determine the contribution of each independent variable in explaining changes in the dependent variable (Variyath & Brobbey, 2020).

Before performing regression analysis, classical assumption tests were conducted to ensure that the regression model met statistical requirements. The classical assumption tests consisted of normality, multicollinearity, heteroscedasticity, and autocorrelation tests.

The normality test was performed to determine whether the residual data followed a normal distribution. A normally distributed residual is an important assumption in regression analysis because it supports the validity of statistical inference. The normality test was conducted using the Kolmogorov–Smirnov test, where data are considered normally distributed when the significance value is greater than 0.05 (Ghasemi & Zahediasl, 2012).

The multicollinearity test was conducted to determine whether there was a strong correlation among independent variables. A regression model should avoid excessive correlation among predictor variables because it may affect the accuracy of regression coefficient estimation. Multicollinearity was evaluated using tolerance and Variance Inflation Factor (VIF) values (Variyath & Brobbey, 2020).

The heteroscedasticity test was conducted to examine whether residual variance remained constant across observations. The regression model is considered appropriate when the variance of residual errors is constant, indicating that the estimated parameters are reliable (Variyath & Brobbey, 2020).

The autocorrelation test was conducted to determine whether residual errors were correlated between observation periods. This test is important because financial data are generally arranged in time-series observations, and autocorrelation may affect the accuracy of regression estimation (Variyath & Brobbey, 2020).

The hypothesis testing was conducted after the regression model fulfilled the classical assumption requirements. Multiple linear regression analysis was applied to examine the

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relationship between Sales Growth and Total Asset Turnover (TATO) as independent variables and Stock Return as the dependent variable. Multiple regression analysis is widely used in quantitative research to estimate the influence of several predictor variables on one response variable and to identify the contribution of each independent variable in explaining variations in the dependent variable (Hair et al., 2021). In this study, regression analysis was performed using SPSS software to obtain regression coefficients, significance values, and the direction of relationships among variables.

The partial significance test (t-test) was conducted to determine the individual effect of each independent variable on Stock Return, while the simultaneous significance test (F-test) was performed to examine whether Sales Growth and Total Asset Turnover (TATO) jointly influence Stock Return. The coefficient of determination (R^2) was also evaluated to determine the explanatory capability of the regression model. Statistical evaluation through significance testing and model assessment is an important procedure in empirical quantitative research because it provides evidence regarding the strength and reliability of relationships among variables (Hair et al., 2021).

The regression model used in this study is expressed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Where:
Y = Stock Return
A = Constant
β1, β2 = Regression coefficients
X1 = Sales Growth
X2 = Total Asset Turnover (TATO)
e = Error term

The coefficient of determination (R^2) was used to measure the ability of independent variables to explain variations in Stock Returns. The partial t-test was applied to examine the individual effect of each independent variable, while the F-test was used to determine the simultaneous effect of Sales Growth and Total Asset Turnover (TATO) on Stock Returns (Variyath & Brobbey, 2020).

4. Results and Discussion

4.1 Normality Test

Table 1. Kolmogorov-Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		10
Normal Parametersa,b	Mean	.0000000
	Std. Deviation	77.18835760
Most Extreme Differences	Absolute	.175
	Positive	.175
	Negative	-.118
Test Statistic		.553
Asymp. Sig. (2-tailed)		.919c

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Data Source : Spss Output Version 26 (2025)

Based on the results of the One-Sample Kolmogorov-Smirnov test presented in Table 1, the Asymp. Sig. (2-tailed) value obtained was 0.919. This value is greater than the significance level of 0.05, indicating that the residual data in the regression model are normally distributed. Therefore, the regression model used in this study has fulfilled the normality assumption and can be continued for further analysis.

4.2 Multicollinearity Test

Table 2. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Sales growth	.684	1.463
TATO	.684	1.463

Data Source : SPSS Output Version 26 (2025)

The multicollinearity test results in Table 2 show that the Sales Growth variable has a tolerance value of 0.684 and a VIF value of 1.463. Similarly, the TATO variable also has a tolerance value of 0.684 and a VIF value of 1.463. Since the tolerance values are greater than 0.10 and the VIF values are below 10, the regression model does not indicate multicollinearity problems among the independent variables. Therefore, Sales Growth and TATO can be included simultaneously in the regression model.

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4.3 Heterokedasticis Test

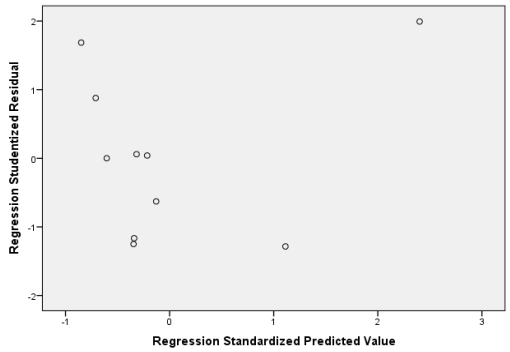


Figure 1. Heterokedasticity Test Results
Data Source : Spss Output v26 2025

Based on the scatterplot presented in Figure 1, the residual points are distributed randomly above and below the zero value on the Y-axis. The distribution of points does not form a specific pattern, such as a widening or narrowing pattern. Therefore, the regression model does not experience heteroscedasticity problems, indicating that the variance of residual errors remains constant across observations.

4.4 Autocorrelation Test

Table 3. Autocorrelation Test Results

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.364a	.747	.494	278.532	2.084
a. Predictors: (Constant), TATO, Sales					
b. Dependent Variable: Return Saham					

Data Source : Spss Output Version 26 (2025)

The autocorrelation test results in Table 3 show that the Durbin-Watson value obtained was 2.084. Based on the decision criteria, the Durbin-Watson value is located between the upper limit (dU) and 4-dU, namely 1.641 < 2.084 < 2.359. Therefore, the regression model does not contain autocorrelation problems, indicating that the residual errors between observation periods are independent.

4.4 Multiple Linear Regression Analysis

Table 4. Coefficients

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4308.706	2243.384		-1.921	.195
	Penjualan	.006	.003	.947	2.224	.156
	TATO	-.001	.001	-.174	-.408	.723
a. Dependent Variable: Return Saham						

Based on Table 4, the multiple linear regression equation obtained in this study is:

Y= - 4.308,706 + 0,006X1 – 0,001X2

The constant value of -4308.706 indicates that when Sales Growth and TATO are assumed to be zero, Stock Return is predicted at -4308.706. The Sales Growth coefficient of 0.006 indicates a positive relationship, meaning that an increase in Sales Growth tends to increase Stock Return. Meanwhile, the TATO coefficient of -0.001 indicates a negative relationship, meaning that an increase in TATO tends to decrease Stock Return when Sales Growth is constant.TATO Coefficient (-0.001): Each increase of one unit of TATO will decrease the Stock Return by 0.001, assuming the variable Sales is constant.

Cohesive Determination Test

From the results of the determination coefficient test, R Square (Coefficient of Determination) was obtained, the value of R Square stated in the table was 0.347. This shows that the magnitude of the influence of sales growth (X1) and TATO (X2) on Stock Return is 0.34% and the remaining 0.64% is influenced by other variables that are not included in this study. Thus, it can be concluded that together sales growth (X1) and TATO (X2) do not have a significant influence on stock returns (Y)

4.5 Coefficient of Determination Test

Table 5. Coefficient of Determination Results

Model	R Square	Adjusted R Square
1	0.747	0.494

Source: SPSS Output Version 26 (2025)

The coefficient of determination test results show that the R Square value is 0.747. This indicates that Sales Growth and Total Asset Turnover (TATO) are able to explain 74.7% of the variation in Stock Return. Meanwhile, the remaining 25.3% is explained by other variables outside this research model.

4.6 Partial Test (t-Test)

Table 6. Partial Test Results

Variable	t-value	Sig.
Sales Growth	2.224	0.156
TATO	-0.408	0.723

Source: SPSS Output Version 26 (2025)

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The partial test results indicate that Sales Growth has a significance value of 0.156, which is greater than 0.05. Therefore, Sales Growth does not have a significant effect on Stock Return. Meanwhile, TATO has a significance value of 0.723, which is also greater than 0.05, indicating that TATO does not significantly affect Stock Return. These results indicate that both independent variables individually do not significantly explain changes in Stock Return during the observation period.

4.7 F test

Tabel 7 F-Test Results

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	457716.139	2	228858.070	2.950	.253b
	Residual	155160.661	2	77580.330		
	Total	612876.800	9			

a. Dependent Variable: Return Saham

b. Predictors: (Constant), TATO, Sales

Based on the F-test results presented in Table 7, the regression model produces an F-value of 2.950 with a significance value of 0.253. The significance value is greater than the predetermined significance level of 0.05, indicating that Sales Growth and Total Asset Turnover (TATO) simultaneously do not have a significant effect on Stock Return of PT Kimia Farma Tbk. Therefore, the regression model does not provide sufficient statistical evidence to conclude that the independent variables jointly explain changes in Stock Return during the observation period. These results indicate that variations in Stock Return are likely influenced by other factors outside the research model, such as profitability, market conditions, investor sentiment, and other financial indicators that were not examined in this study. Based on these findings, the third hypothesis (H3), which states that Sales Growth and Total Asset Turnover (TATO) simultaneously affect Stock Return, is rejected.

4.7 Discussion

4.7.1 The Effect of Sales Growth on Stock Return

The results of this study indicate that Sales Growth does not have a significant effect on Stock Return of PT Kimia Farma Tbk during the 2019–2023 observation period. This finding indicates that changes in sales growth have not been sufficient to influence investor returns in the capital market. Although sales growth represents the company's ability to increase revenue from operational activities, investors do not necessarily interpret increasing sales as a direct indication of increasing shareholder returns.

Sales growth is generally considered an important indicator of company development because increasing sales reflects the company's ability to expand markets and maintain demand for its products. However, revenue growth does not always create positive market reactions when the increase in sales is not followed by improvements in profitability, operational efficiency, and earnings quality. Investors tend to evaluate whether sales growth can generate sustainable financial benefits rather than only observing changes in revenue levels (Djaya & Firdausy, 2023).

The insignificant effect of Sales Growth on Stock Return in this study indicates that investors may consider other financial indicators when evaluating PT Kimia Farma Tbk. In the pharmaceutical industry, increasing sales may require higher operational costs, production expenses, and working capital requirements. Therefore, sales growth does not automatically indicate an increase in company value if the growth does not improve the company's ability to generate profits (Ningsih & Noviari, 2022).

During the 2019–2023 period, PT Kimia Farma Tbk experienced dynamic business conditions due to changes in healthcare demand before and after the COVID-19 pandemic. Although the pharmaceutical sector experienced increased attention during the pandemic period, stock market performance was also influenced by investor expectations, market sentiment, and perceptions regarding future company performance. Therefore, stock return movements cannot be explained solely by sales growth indicators.

The result of this study supports the argument that capital market investors consider comprehensive financial information rather than relying on a single indicator. Financial ratios, profitability, company risk, and market conditions become important considerations in investment decisions because stock returns represent market valuation rather than only accounting performance (Faizaturrahmi & Handajani, 2024).

This finding is different from several studies that found a significant relationship between sales growth and company performance. Differences in findings may occur

due to differences in research objects, observation periods, industrial characteristics, and economic conditions. Pharmaceutical companies have specific characteristics because their performance is strongly influenced by regulation, healthcare policies, and market conditions (Djaya & Firdausy, 2023).

Based on these findings, the first hypothesis (H1), which states that Sales Growth affects Stock Return, is rejected. This indicates that sales growth alone cannot explain stock return fluctuations of PT Kimia Farma Tbk during the research period.

Furthermore, the absence of a significant relationship between Sales Growth and Stock Return suggests that investors may place greater emphasis on the quality of earnings generated from sales activities rather than the growth of sales itself. An increase in revenue must be evaluated based on the company's ability to maintain profit margins, control operating expenses, and generate sustainable cash flows. In other words, sales growth represents the expansion of business activities, but it does not necessarily reflect the effectiveness of management in creating shareholder value. Therefore, investors may respond more strongly to profitability indicators and future earnings prospects compared with sales growth alone when making investment decisions (Rahim et al., 2025).

In addition, the findings of this study indicate that accounting-based indicators and market-based indicators may not always move in the same direction. Sales Growth is an internal financial performance indicator derived from company operations, whereas Stock Return reflects market expectations influenced by various factors, including investor sentiment, macroeconomic conditions, industry competition, and perceived business risks. In pharmaceutical companies, particularly during periods of economic uncertainty and industry transformation, market participants may consider broader information beyond historical sales performance when assessing investment value. Thus, the insignificant effect of Sales Growth on Stock Return at PT Kimia Farma Tbk indicates that revenue growth alone is insufficient to explain stock price movements during the 2019–2023 period (Rais et al., 2024).

4.7.2 The Effect of Total Asset Turnover (TATO) on Stock Return

The results of this study indicate that Total Asset Turnover (TATO) does not have a significant effect on Stock Return of PT Kimia Farma Tbk. This finding indicates that the efficiency of asset utilization in generating sales has not become a dominant factor influencing investor returns during the observation period.

Total Asset Turnover is an indicator that describes how effectively a company utilizes its assets to generate revenue. In financial analysis, a higher TATO value generally reflects better operational efficiency because the company can generate greater sales from available assets. However, asset efficiency does not always result in higher stock returns because investors also consider profitability, financial stability, and future growth prospects (Faizaturrahmi & Handajani, 2024).

The insignificant relationship between TATO and Stock Return suggests that investors may not view asset turnover as the primary determinant of PT Kimia Farma Tbk's stock performance. In the pharmaceutical industry, companies usually have large asset investments related to production facilities, distribution systems, research activities, and regulatory requirements. These assets may support long-term business development but do not necessarily generate immediate market responses.

Furthermore, high asset utilization does not always indicate better shareholder returns if the company faces pressure from operating costs or declining profitability. Investors generally evaluate whether operational efficiency can be translated into improved earnings and company value. Therefore, TATO needs to be interpreted together with other financial indicators to provide a comprehensive assessment of company performance (Rofi'i et al., 2026).

The result of this study is consistent with the view that stock return is influenced by various fundamental and market factors. Financial performance indicators provide important information, but investor decisions are also affected by market expectations, risk perception, and external economic conditions. Therefore, operational efficiency measured by TATO may not have a direct impact on stock returns in certain periods (Rais et al., 2024).

The difference between accounting efficiency and market response may explain

why TATO does not significantly influence stock return. A company may improve asset utilization, but if investors perceive uncertainty regarding future profitability or business risks, the stock market response may remain limited.

Based on these findings, the second hypothesis (H2), which states that Total Asset Turnover (TATO) affects Stock Return, is rejected. This means that TATO has not been able to significantly explain stock return changes of PT Kimia Farma Tbk during 2019–2023.

4.7.3 The Effect of Sales Growth and Total Asset Turnover (TATO) on Stock Return

The results of the simultaneous hypothesis testing show that Sales Growth and Total Asset Turnover (TATO) do not have a significant effect on Stock Return of PT Kimia Farma Tbk. This finding indicates that the combination of revenue growth and asset utilization efficiency has not been sufficient to explain changes in stock return during the observation period.

Sales Growth and TATO represent two important aspects of financial performance. Sales Growth reflects the company's ability to expand revenue, while TATO reflects operational efficiency in utilizing assets. However, stock return represents market-based performance that is influenced by more complex factors, including profitability, financial risk, investor sentiment, and macroeconomic conditions.

The insignificant simultaneous effect indicates that investors may require broader financial information when evaluating pharmaceutical companies. Financial performance indicators must be considered together with other factors such as profitability, market value, corporate governance, and systematic risk. These factors can influence investor perceptions and ultimately affect stock return movements (Rais et al., 2024).

In the pharmaceutical sector, company performance during 2019–2023 was affected by significant environmental changes, including pandemic-related demand fluctuations, regulatory changes, and competitive pressure. These conditions may cause market participants to respond differently to accounting information because stock prices reflect expectations about future performance rather than only historical financial results.

The results also indicate that improvements in sales growth and asset efficiency do not automatically create higher shareholder returns. Companies need to ensure that operational improvements generate sustainable profitability and strengthen investor confidence. Financial information quality and corporate performance transparency are important aspects that influence investor assessment of company prospects (Yasri et al., 2023).

The findings of this study support previous research indicating that stock return is determined by various financial and market factors. Therefore, evaluating stock performance requires a comprehensive approach that considers both internal company conditions and external market dynamics (Rofi'i et al., 2026).

Based on these findings, the third hypothesis (H3), which states that Sales Growth and Total Asset Turnover (TATO) simultaneously affect Stock Return, is rejected. This indicates that these two variables have not been sufficient to explain stock return variations of PT Kimia Farma Tbk during the 2019–2023 period.

Furthermore, the absence of a significant simultaneous effect of Sales Growth and Total Asset Turnover (TATO) suggests that accounting-based performance indicators do not always translate directly into market performance. Although both variables provide information regarding operational capability, investors in the capital market consider future expectations and perceived risks when determining stock valuation. Therefore, changes in sales performance and asset efficiency may not immediately be reflected in stock returns, particularly when investors perceive uncertainty regarding future earnings sustainability and business prospects.

In addition, the findings emphasize that pharmaceutical companies require a comprehensive performance evaluation approach because stock returns are influenced by multiple dimensions of company performance. Operational growth and asset efficiency need to be supported by effective profitability management, financial stability, and strategic business decisions to generate long-term value for shareholders. Thus, the insignificant effect of Sales Growth and TATO simultaneously does not indicate that these indicators are irrelevant, but rather demonstrates that they are insufficient as

single predictors for explaining stock return movements of PT Kimia Farma Tbk during the 2019–2023 period. Investors and management need to consider broader financial and non-financial factors to obtain a more comprehensive assessment of company performance.

5. Conclusion

This study examines the effect of Sales Growth and Total Asset Turnover (TATO) on Stock Return of PT Kimia Farma Tbk during the 2019–2023 period. Based on the results of multiple linear regression analysis, Sales Growth does not have a significant effect on Stock Return. This indicates that changes in sales performance have not become a major determinant of investor returns because investors may consider other financial and market factors beyond revenue growth. Similarly, Total Asset Turnover (TATO) does not have a significant effect on Stock Return, indicating that asset utilization efficiency alone has not been sufficient to influence stock market performance. Furthermore, Sales Growth and TATO simultaneously do not have a significant effect on Stock Return, suggesting that other factors outside the research model play a more dominant role in explaining stock return fluctuations. The findings imply that PT Kimia Farma Tbk needs to focus not only on increasing sales and asset efficiency but also on improving profitability, cost management, product innovation, and long-term business strategies to create sustainable shareholder value. For investors, the results indicate that investment decisions should not rely solely on Sales Growth and TATO but should also consider other financial indicators, market conditions, and industry factors.

This study has several limitations. The research focuses only on one company with a relatively limited observation period of 2019–2023, which may restrict the generalization of findings. In addition, this study only includes Sales Growth and TATO as explanatory variables, while stock returns may also be influenced by profitability, leverage, liquidity, macroeconomic conditions, and investor sentiment. Future research is recommended to include additional financial and market variables, expand the research sample to other pharmaceutical companies listed on the Indonesia Stock Exchange, and use longer observation periods to obtain more comprehensive findings regarding the determinants of stock returns.

References

Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. (2019). The effect of corporate governance mechanisms on firm performance: Evidence from Saudi Arabia. *Journal of Economic and Administrative Sciences, 35*(1), 20–37. https://doi.org/10.1108/JEAS-02-2018-0021

Alvian, L., Wardiyah, N. A., Putri, S. E., Apriliyani, D. R., & Herayati. (2026). Analisis rasio keuangan untuk menilai kinerja keuangan pada PT Industri Jamu & Farmasi Sido Muncul Tbk periode 2020–2024. *Simpati, 4*(2), 238–254. https://doi.org/10.59024/simpati.v4i2.2065

Andinata, W. (2021). Pengaruh size dan sales growth terhadap profitabilitas perusahaan manufaktur sektor konsumsi dengan struktur modal sebagai variabel moderasi. *Diponegoro Journal of Economics, 10*(2). https://doi.org/10.14710/djoe.31605

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing, 25*(8), 652–661. https://doi.org/10.1177/1744987120927206

Djaya, T., & Firdausy, C. M. (2023). Pengaruh pertumbuhan penjualan terhadap profitabilitas perusahaan farmasi yang terdaftar di Bursa Efek Indonesia. *Jurnal Manajemen Bisnis dan Kewirausahaan, 7*(4), 760–769. https://doi.org/10.24912/jmbk.v7i4.25362

Faizaturrahmi, F., & Handajani, L. (2024). Pengaruh rasio keuangan terhadap return saham pada perusahaan pulp dan kertas di Bursa Efek Indonesia. *Competitive: Jurnal Akuntansi dan Keuangan, 8*(2), 132–147. https://doi.org/10.31000/competitive.v8i2.11983

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism, 10*(2),

486–489. https://doi.org/10.5812/ijem.3505

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer. https://doi.org/10.1007/978-3-030-80519-7

Karim, A., Widyarti, E. T., & Santoso, A. (2023). Effect of current ratio, total asset turnover, and size on profitability: Evidence from Indonesian manufacturing companies. *Diponegoro International Journal of Business, 6*(1), 57–63. https://doi.org/10.14710/dijb.6.1.2023.57-63

Muhklis, I., Cahayati, N., Hakim, R., & Maharani, N. C. (2025). Analyzing liability structure in shaping financial performance: A study of Indonesian pharmaceutical companies from 2013 to 2023. *International Journal of Finance & Banking Studies, 14*(3), 91–97. https://doi.org/10.20525/ijfbs.v14i3.4402

Ningsih, I. A. M. W., & Noviari, N. (2022). Financial distress, sales growth, profitabilitas dan penghindaran pajak. *E-Jurnal Akuntansi, 32*(1), 229–244. https://doi.org/10.24843/EJA.2022.v32.i01.p17

Nugroho, B. A., Haryanto, A. T., & Nurlaela, S. (2023). The effect of sales growth, asset structure, and profitability on firm value: Evidence from Indonesian companies. *International Journal of Economics, Business and Accounting Research, 7*(2), 1–12. https://doi.org/10.29040/ijebar.v7i2.8797

PT Kimia Farma Tbk. (2024). *Annual Report PT Kimia Farma Tbk 2023*. Jakarta: PT Kimia Farma Tbk.

Rahim, D. A., Citarayani, I., & Marbun, M. C. (2025). Linking financial performance to profit growth: Empirical insights from pharmaceutical firms in Indonesia. *E-Jurnal Akuntansi, 35*(6). https://doi.org/10.24843/EJA.2025.v35.i06.p18

Rais, A. H., Ginting, C. D. B., Yusuf, Y. Y., & Hidayatullah, A. M. S. (2024). Fundamental factors and systematic risk on stock returns: Study on LQ45 index companies listed on the Indonesia Stock Exchange for the period 2019–2023. *Income Journal: Accounting, Management and Economic Research, 3*(2), 77–85. https://doi.org/10.61911/incomejournal.v3i2.74

Rofi'i, M., Zusryn, A. S., Huda, N., Gani, A. N., Faisal, M., & Syarif, A. (2026). Do financial performance and market value matter? Evidence on stock returns in the pharmaceutical industry. *UPY Business and Management Journal, 5*(2). https://doi.org/10.31316/ubmj.v5i2.9797

Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill-building approach* (8th ed.). Wiley.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Variyath, A. M., & Brobbey, A. (2020). Variable selection in multivariate multiple regression. *PLOS ONE, 15*(7), e0236067. https://doi.org/10.1371/journal.pone.0236067

Wangi, M. C. (2025). Pengaruh sales growth, aktivitas, likuiditas, solvabilitas terhadap profitabilitas pada perusahaan subsektor farmasi yang tercatat di BEI periode 2016–2020. *SWOT: Jurnal Ilmiah Ilmu Manajemen, 13*(2). https://doi.org/10.22441/swot.v13i2.33252

Yasri, N. Q., Muchlis, M., & Suhartono. (2023). The effect of corporate social responsibility disclosure on earnings quality with good corporate governance as moderating variable. *Income Journal: Accounting, Management and Economic Research, 2*(2), 110–119. https://doi.org/10.61911/income.v2i2.37