

ANALYSIS OF RECEIVABLES TURNOVER AND INVENTORY TURNOVER ON PROFITABILITY IN THE PHARMACEUTICAL SUBSECTOR LISTED ON THE INDONESIAN STOCK EXCHANGE (IDX) FOR THE PERIOD 2021–2025

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Abstract

Keywords:

Receivables Turnover,
Inventory Turnover,
Profitability,
Return on Assets,
Pharmaceutical Industry

The background of this study is based on the importance of efficient management of current assets, such as accounts receivable and inventory, in the pharmaceutical industry to avoid the risk of losses due to expired products and to maintain the smooth operation of the company's operational cycle and profitability. The objective of this study is to analyze the effect of Receivables Turnover (RTO) and Inventory Turnover (ITO), both partially and simultaneously, on profitability, as proxied by Return on Assets (ROA). The research method used was a quantitative associative approach with purposive sampling, which yielded 11 sample companies from a total population of 16 in the pharmaceutical subsector listed on the Indonesia Stock Exchange (IDX) for the 2021–2025 period (after outlier elimination, 49 observations were obtained). Data analysis was conducted using multiple linear regression with IBM SPSS 27.0 software. The results indicate that, when analyzed partially, Receivables Turnover has a positive and significant effect on profitability, whereas Inventory Turnover does not have a significant effect on profitability. Simultaneously, these two variables do not have a significant effect on ROA, with an Adjusted R-Square value of 0.057, meaning that the independent variables explain 5.7% of the variation in profitability, while the remainder is influenced by other factors outside the research model.

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INTRODUCTION

Financial management is the process of managing a company's financial resources, encompassing the comprehensive management of capital, revenue, expenses, and company assets to achieve efficiency (Dina et al., 2023). One of the measurement tools in financial management is financial ratio analysis, which includes activity ratios and profitability ratios.

Activity ratios are used to measure the extent to which a company efficiently manages its current assets, particularly accounts receivable and inventory, as reflected by Receivables Turnover (RTO) and Inventory Turnover (ITO). RTO illustrates a company's efficiency in collecting receivables and converting them back into cash, while ITO reflects the speed at which inventory is converted into sales. The higher the RTO and ITO values, the more efficiently the company manages its current assets, thereby minimizing the risk of idle funds and the risk of spoiled inventory.

Efficiency in these activity ratios ultimately impacts profitability ratios—specifically, a company's ability to generate profit from its assets, which in this study is measured by Return on Assets (ROA). Theoretically, efficient management of accounts receivable and inventory (high RTO and ITO) will accelerate cash flow and sales, thereby contributing to an increase in the company's ROA. Return on Assets is a ratio used to measure how efficiently a company utilizes all its assets to generate net profit. Therefore, the higher the ROA percentage, the more effective and efficient the company is in managing its assets to generate profits.

The pharmaceutical industry is one of the strategic subsectors of the economy that plays a role in supporting Indonesia's public health system. However, developments during the 2021–2022 period indicate that accounts receivable and inventory management at a number of pharmaceutical companies have not been optimal. For example, PT Kimia Farma Tbk (KAFF) recorded a significant consolidated loss in 2023, amounting to Rp 1.82 trillion. This loss was triggered by a buildup of unsold products that expired, as well as a 25.83% increase in cost of goods sold—a rise that far outpaced sales growth of just 7.93% (CNBC Indonesia, 2024). This situation was exacerbated by a 5.43% decline in KAFF's total assets due to inventory write-downs and provisions for accounts receivable (CNBC Indonesia, 2025). On the other hand, PT Kalbe Farma Tbk (KLBF) is also facing similar pressures, prompting it to continue tightening inventory and supply chain management amid uncertainty regarding the prices of imported raw materials and fluctuations in the rupiah exchange rate.

This phenomenon indicates a real problem regarding the management of accounts receivable and inventory that is out of sync with the company's operational cycle, thereby directly impacting the financial performance of pharmaceutical companies listed on the Indonesia Stock Exchange (IDX). Various empirical studies in recent years have shown inconsistent results. For example, a study conducted by Lestari & Novayanti (2024) on container and packaging companies listed on the IDX during the 2020–2023 period found that, when analyzed separately, receivables turnover (RTO) had a significant positive effect on return on assets (ROA). Partially, Inventory Turnover (ITO) has a significant positive effect on Return on Assets (ROA). Simultaneously, both Receivables Turnover and Inventory Turnover have a significant effect on Return on Assets (ROA). Conversely, however, a study conducted by Amir et al. (2026) on the consumer goods sector during the 2019–2023 period found that, partially, Receivables Turnover (RTO) was not significant for Return on Assets (ROA). Partially, Inventory Turnover was also not

significant for Return on Assets (ROA). Furthermore, the study concluded that, when analyzed simultaneously, both Accounts Receivable Turnover and Inventory Turnover were not significant determinants of ROA.

LITERATURE REVIEW

Receivables Turnover

Kasmir (2011) states that accounts receivable turnover is a ratio that measures how long it takes to collect receivables within a given period, or how many times the funds tied up in receivables turn over within a period (Rajagukguk & Siagian, 2021). In line with this, Rita Satria (2018) explains that accounts receivable turnover is a ratio used to assess and measure how frequently accounts receivable turn over within a given period, from the time they are recorded until they are converted back into cash. The higher the accounts receivable turnover ratio, the better the company's financial condition, as it indicates that receivables can be collected quickly (Afriyani & Indraswari, 2025). Additionally, accounts receivable turnover serves as a key indicator in working capital management, measuring a company's effectiveness in collecting credit sales and converting receivables into cash. A higher ratio indicates better collection efficiency and lower investment in accounts receivable (Amir et al., 2026). Good management helps maintain liquidity and supports the company's operational activities on a sustainable basis.

Receivables Turnover Formula

Technically, Kasmir (2017) states that Accounts Receivable Turnover is calculated by dividing net credit sales by the average accounts receivable balance; thus, the higher the ratio, the more efficiently working capital is invested in accounts receivable (Lukman & Jusnia, 2024). The average accounts receivable is obtained by adding the beginning-of-period accounts receivable balance to the end-of-period accounts receivable balance, then dividing by two. This calculation is used to determine how often the funds tied up in accounts receivable turn over during a given period. A high Accounts Receivable Turnover value indicates that the company is able to manage accounts receivable effectively and expedite the collection process. Conversely, a low ratio may indicate that it takes longer for accounts receivable to be converted into cash. In this study, Receivables Turnover is used to describe a company's receivables turnover rate. The formula for Receivables Turnover is as follows: $\text{Receivables Turnover} = \text{Net Sales} \div \text{Average Trade Receivables}$. The results of this calculation serve as the basis for evaluating receivables management. Companies can use these results to periodically evaluate their credit and collection policies for improvement.

Factors Affecting Receivables Turnover

Several factors that influence the level of a company's receivables turnover are as follows. First, credit policy. An overly lenient credit policy—such as long credit terms or low requirements—tends to result in low receivables turnover because it takes longer to collect receivables. Second, collection effectiveness. The ability of the collections team to collect receivables on time significantly affects receivables turnover. The more effective the collection process, the higher the resulting ratio. Third, customer characteristics. Customers' financial capacity and payment discipline also influence the speed at which accounts receivable are converted into cash. In the pharmaceutical industry, major customers—such as distributors, pharmacies, and healthcare facilities—have varying payment cycles (Andriyani & Arif, 2024). Fourth, economic conditions.

Fluctuations in consumer purchasing power and market liquidity conditions—particularly during the post-pandemic period of 2021–2025—also affect customers’ ability to meet their payment obligations to pharmaceutical companies. Therefore, both customer policies and conditions must be considered together when establishing a company’s accounts receivable management strategy.

Inventory Turnover

Inventory Turnover measures the efficiency of inventory management by examining how often inventory is sold and replenished within a specific period, where a high ratio indicates effective inventory management (Amir et al., 2026). In line with this view, Kasmir (2017) explains that inventory turnover is a ratio that measures how often funds invested in inventory are turned over within a single period; thus, the lower the ratio, the poorer the company’s inventory management performance (Lukman & Jusnia, 2024). Inventory turnover also reflects the efficiency of inventory management by measuring the frequency with which inventory is sold and replenished; thus, a high ratio generally indicates effective inventory management, reduced storage costs, and more efficient use of resources (Amir et al., 2026). Moorcy & Sudjinan (2018) explain that this ratio illustrates a company’s ability to manage inventory and indicates whether inventory moves slowly or is sold quickly (Syahamah et al., 2025). This ratio serves as a key metric in a company’s inventory control and supports the consistent, sustainable management of working capital.

Inventory Turnover Formula

Average inventory is calculated by adding the beginning inventory balance to the ending inventory balance and then dividing by two. The use of cost of goods sold (COGS) in the numerator is intended to avoid mixing the cost of goods with the selling price, so that the resulting ratio more accurately reflects actual operational efficiency (Islamiah and Yudiantoro, 2022). Inventory Turnover is used to determine how frequently inventory turns over during a given period and to assess a company’s inventory management. A high ratio generally indicates that inventory is sold and replaced more quickly, while a low ratio may indicate that inventory moves more slowly. In this study, the Inventory Turnover calculation uses the cost of goods sold as the numerator and average inventory as the denominator. Thus, the formula for Inventory Turnover is as follows: $\text{Inventory Turnover} = \text{Cost of Goods Sold} \div \text{Average Inventory}$. The result of this calculation is used to describe the company’s inventory turnover rate. This calculation helps companies periodically evaluate inventory control as part of their operational activities.

Factors Affecting Inventory Turnover

Several factors influence a company’s Inventory Turnover, including the following. First, fluctuations in market demand. Uncertainty in demand, particularly in the wake of the COVID-19 pandemic, has forced pharmaceutical companies to carefully determine stock levels to avoid inventory buildup. Second, product expiration dates. A characteristic of the pharmaceutical industry is that every product has a strict expiration date, so management must ensure that inventory turns over before it expires (Prasetyawan et al., 2024). Third, raw material procurement policies. The Indonesian pharmaceutical industry’s reliance on imported raw materials means companies need to maintain buffer stock to anticipate fluctuations in raw material prices and availability, which affects inventory turnover. Fourth, distribution system efficiency. A company’s ability to distribute products quickly and efficiently across various channels—including pharmacies, hospitals, and distributors—significantly impacts inventory turnover speed.

These factors determine a company's ability to maintain a balance between inventory availability and movement. Managing these factors is crucial to preventing both excess and shortages and keeping inventory levels under control.

Profitability

Profitability is a ratio used to measure a company's ability to generate profits from its sales activities, use of assets, and capital. A company's primary objective is to generate optimal profits to ensure long-term sustainability (Ariawan et al., 2024). Sujarweni (2017) states that profitability ratios are used to assess a company's ability to generate profits related to sales, assets, and equity (Priatna et al., 2022). Harahap explains that profitability reflects a company's ability to generate profits through various capabilities and resources, such as sales, cash, capital, the number of employees, and company branches (Priatna et al., 2022). Profitability also serves as an indicator of management's efficiency in managing resources, including working capital. A high profitability ratio indicates strong financial performance. For investors and creditors, profitability serves as a benchmark for a company's prospects (Erdian et al., 2022). In the pharmaceutical industry, profitability is essential to support research, product development, and the distribution of medications. Thus, profitability can be used to evaluate the results of financial management.

Return on Assets (ROA)

According to Thian (2022), types of profitability ratios include Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), and Gross Profit Margin (GPM) (Sahabuddin et al., 2026). ROA indicates the contribution of assets to net profit; ROE indicates net profit per rupiah of equity; NPM indicates the percentage of net profit relative to sales; and GPM shows profit after deducting the cost of goods sold. In this study, profitability is proxied by Return on Assets (ROA). The selection of ROA is based on the consideration that this ratio assesses a company's ability to use all its assets to generate profit, making it relevant for measuring the management of Receivables Turnover and Inventory Turnover as components of current assets. According to Riyanto (2011), ROA reflects a company's ability to generate net profit from the management of capital invested in all of the company's assets (Rajagukguk & Siagian, 2021). ROA also reflects the rate of return on a company's investment; thus, the higher its value, the more effectively assets are utilized to generate profit (Lukman & Jusnia, 2024). consistently.

RESEARCH METHOD

This study employs a quantitative approach with an associative-causal design to analyze the effect of Receivables Turnover (X_1) and Inventory Turnover (X_2) on profitability, proxied by Return on Assets (Y). The research data consists of secondary panel data comprising 11 companies in the pharmaceutical subsector listed on the Indonesia Stock Exchange (IDX) from 2021 to 2025, resulting in 55 observations. The analysis was conducted using IBM SPSS Statistics via multiple linear regression. The study population consists of all 16 companies in the pharmaceutical subsector listed on the IDX. The sample was selected using purposive sampling based on the following criteria: listed and having published audited annual financial reports from 2021 to 2025; having conducted an IPO prior to 2021; not permanently listed on the Special Monitoring Board; and possessing complete data on net sales, accounts receivable, cost of goods sold, inventory, net income after tax, and total assets. Based on these criteria, 11 companies were selected as the sample.

The research variables consist of Receivables Turnover (X_1), Inventory Turnover (X_2), and profitability (Y). Receivables Turnover is calculated as Net Sales divided by average accounts receivable. Inventory Turnover is calculated as COGS divided by average inventory. Profitability is proxied by ROA, which is net income after tax divided by total assets multiplied by 100%. Data

collection utilized a documentary approach through the companies' annual financial reports obtained from the Indonesia Stock Exchange (BEI), IDNFinancials, and the companies' official websites. The analytical techniques included descriptive statistics, classical assumption tests, multiple linear regression, and hypothesis testing. The classical assumption tests covered normality, multicollinearity, heteroscedasticity, and autocorrelation. The regression equation used is $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$. Hypothesis testing consists of a t-test for partial effects, an F-test for simultaneous effects, and the adjusted R^2 coefficient to determine the ability of the independent variables to explain variations in profitability. Classical assumption tests were conducted to ensure the model met the BLUE (Best Linear Unbiased Estimator) criteria. Hypothesis testing used a 5% significance level. Variable data were obtained from the statement of financial position and the comprehensive income statement as required for each ratio. This analysis was used to draw research conclusions.

RESULTS AND DISCUSSION

Data Quality Test

This study used secondary data in the form of financial statements from companies in the pharmaceutical subsector listed on the Indonesia Stock Exchange (BEI) for the period 2021–2025. Since the data were obtained from official sources and prepared in accordance with Financial Accounting Standards, no validity or reliability tests of the instruments were conducted. Data validity was assessed through validity checks. Financial statement data were used to calculate Receivables Turnover, Inventory Turnover, and Return on Assets. Prior to hypothesis testing, classical assumption tests—including normality, multicollinearity, heteroscedasticity, and autocorrelation—were conducted to ensure the model met the BLUE criteria. The test results showed that the variables were not normally distributed. Therefore, outliers were eliminated using boxplots, reducing the data set from $N=55$ to $N=49$ and resulting in normally distributed data.

Descriptive Statistics Before Outlier Elimination

Descriptive statistics on the original data were used to understand the basic characteristics of each variable before outlier elimination. This analysis included the minimum, maximum, mean, and standard deviation of the RTO, IRO, and ROA variables.

Table IV.16 Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Receivables Turnover	55	1.73	12.17	6.0152	2.18407
inventory turnover	55	1.47	9.05	3.8189	1.75638
ROA	55	-.20	.98	.1005	.15914
Valid N (listwise)	55				

The results in the table show that the operational variables (receivables and inventory turnover) and the profitability variable (ROA) have fairly wide ranges and distributions. This asymmetric range of values is an initial indication that the data is likely not normally distributed, which was confirmed through formal tests.

Descriptive statistics after outlier removal

The results of the initial normality test indicate that the data are not normally distributed (sig. = 0.000), which is due to the presence of outliers. Therefore, outliers were identified using boxplots, and 6 observations were removed; the residual data are normally distributed (sig. = 0.200)

Table IV.17 Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Accounts Receivable Turnover	49	2.06	9.57	6.1129	1.95155
inventory turnover	49	1.50	9.05	3.8061	1.71468
ROA	49	-.14	.27	.0750	.08265
Valid N (listwise)	49				

Descriptive statistics show three variables with N=49: receivables turnover, inventory turnover, and return on assets (ROA). Receivables turnover has a minimum of 2.06, a maximum of 9.57, a mean of 6.1129, and a standard deviation of 1.95155. Inventory turnover has a minimum of 1.50, a maximum of 9.05, a mean of 3.8061, and a standard deviation of 1.71468. ROA has a minimum of -0.14, a maximum of 0.27, a mean of 0.0750, and a standard deviation of 0.08265. Compared to N=55, the standard deviations for receivables turnover and inventory turnover at N=49 are lower, while ROA shows a marked decrease in variability. These conditions indicate that the elimination of outliers makes the data stable and homogeneous. Thus, N=49 supports the testing of classical assumptions because the data distribution is relatively controlled and has the potential to meet the normality assumption.

Classical Assumption Tests

Normality Test

Table IV.18

Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Standardized Residual
N		55
Normal Parameters ^{a, b}	Mean	.0000000
	Standard Deviation	.98130676
Most Extreme Differences	Absolute	.221
	Positive	.221
	Negative	-.109
Test Statistic		.221
Asymptotic Significance (2-tailed)		.000 ^c

a. The test distribution is normal.

b. Calculated from the data.

c. Lilliefors Significance Correction.

Based on the results of the normality test using the Kolmogorov-Smirnov test, as shown in the table above, the one-sample Kolmogorov-Smirnov value is 0.221 with a significance level of $0.0000 > 0.05$. From these results, it is evident that the Asymp.sig (2-tailed) values for both the independent and dependent variables in the Kolmogorov-Smirnov test are greater than the specified alpha level of 0.05 at a 95% confidence level, indicating that the sample is not normally distributed. To address this issue, the author identified outliers to determine whether any extreme values were influencing the final results. The following are the results:

Table 4.19
Outlier Identification Results

Row	Company	Year	RTO	ITO	ROA	Reason for outlier
21	PEHA	2021	2.3478	1.4691	0.9825	Extreme ROA
24	PEHA	2024	1.7338	2.0235	0.2032	Low ROA outlier
32	SCPI	2022	12.1669	7.8419	0.1284	High RTO outlier
41	SIDO	2021	6.0565	4.54	0.3099	High ROA outlier
44	SIDO	2024	4.7208	3.8503	0.2972	ROA is approaching the outlier threshold
45	SIDO	2025	4.2807	3.8178	0.3339	High ROA outlier

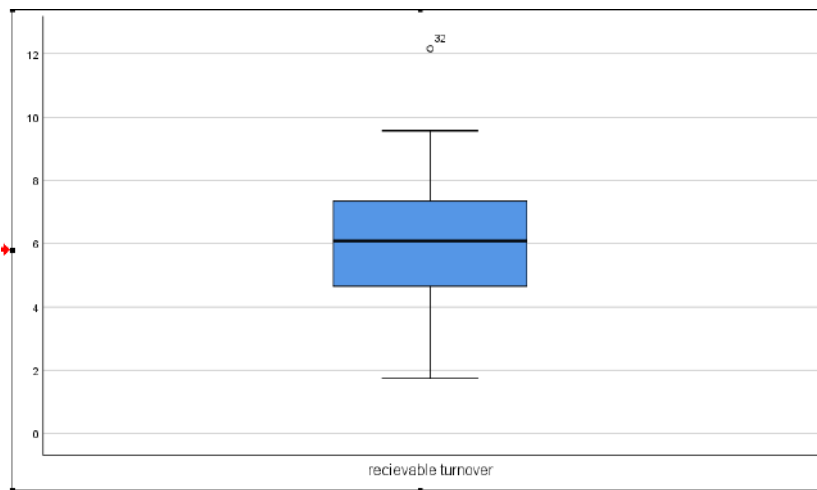


Figure IV.1

Boxplot of the Receivables Variable

Based on the boxplot analysis, the Receivables Turnover variable shows a relatively even data distribution with a median value of approximately 6 times. Most of the data is concentrated in the range of 5 to 7 times turnover (blue box/IQR). The lower whisker indicates a minimum value of approximately 2 times, while the upper whisker reaches approximately 10 times. There is one outlier in row 32, namely PT Organon Pharma

Indonesia Tbk in 2022, with an RTO value of 12.17 times, marked with a circle (○) above the upper whisker, indicating that this company has a significantly higher ability to collect receivables compared to other companies in the research sample.

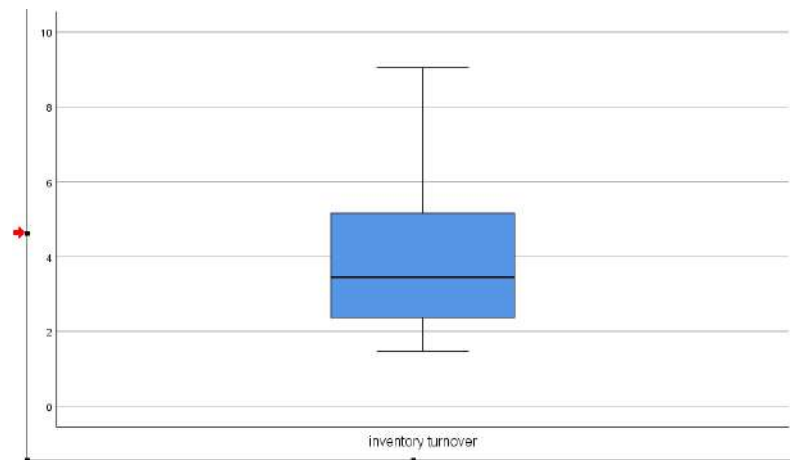


Figure IV.2

Boxplot of the Inventory Turnover Variable

Based on the boxplot results, the Inventory Turnover variable shows a fairly symmetrical data distribution with a median value of approximately 3.5 times. Most of the data falls within the range of 2.5 to 5 times inventory turnover (blue box/IQR). The lower whisker indicates a minimum value of approximately 1.5 times, while the upper whisker reaches approximately 9 times. No outliers marked with special symbols were found in this variable, indicating that inventory turnover among the pharmaceutical companies in the study sample is relatively homogeneous and does not contain significant extreme values that deviate from the overall data distribution pattern.

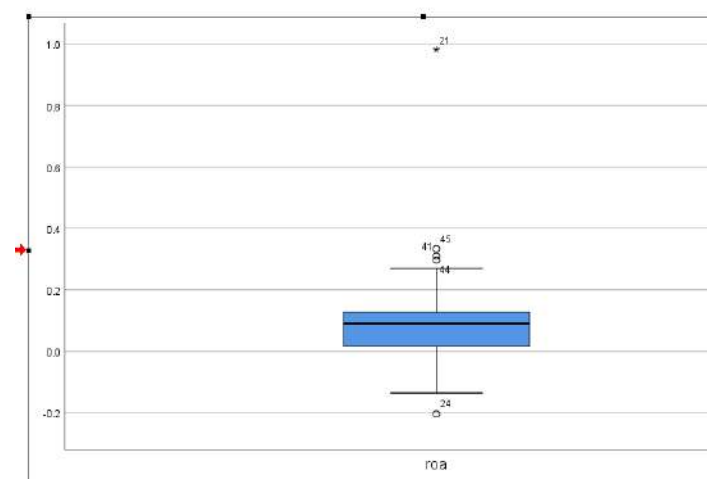


Figure IV.3

Boxplot Results for the Return on Assets Variable

Based on the boxplot results, the Return on Assets variable shows a relatively narrow data distribution with a median value of approximately 0.10. Most of the data is concentrated in the range of 0.02 to 0.13 (blue box/IQR). Five outliers were identified: one extreme

outlier (★) in row 21 (PT Phapros 2021, ROA = 0.9825) and four mild outliers (○) in row 24 (PT Phapros 2024, ROA = -0.2032), row 41 (PT Sido Muncul 2021, ROA = 0.3099), row 44 (PT Sido Muncul 2024, ROA = 0.2972), and row 45 (PT Sido Muncul 2025, ROA = 0.3339).

After removing 6 outliers from the data, we retested whether the data followed a normal distribution.

Table IV.20
Normality Test Results After Outlier Removal
One-Sample Kolmogorov-Smirnov Test

		Unstandardize d Residual
N		49
Normal Parameters ^{a, b}	Mean	.0000000
	Standard Deviation	.07856094
Most Differences	ExtremeAbsolute	.106
	Positive	.101
	Negative	-.106
Test Statistic		.106
Asymptotic Significance (2-tailed)		.200 ^{c,d}

- a. The test distribution is normal.
- b. Calculated from the data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

The results of the normality test using the Kolmogorov-Mirnov test, as shown in the table above, indicate that the dependent and independent variables are normally distributed. This is indicated by a significance value greater than 0.05 ($0.200 > 0.05$); therefore, it can be concluded that the regression model satisfies the assumption of normality.

Heteroscedasticity Test

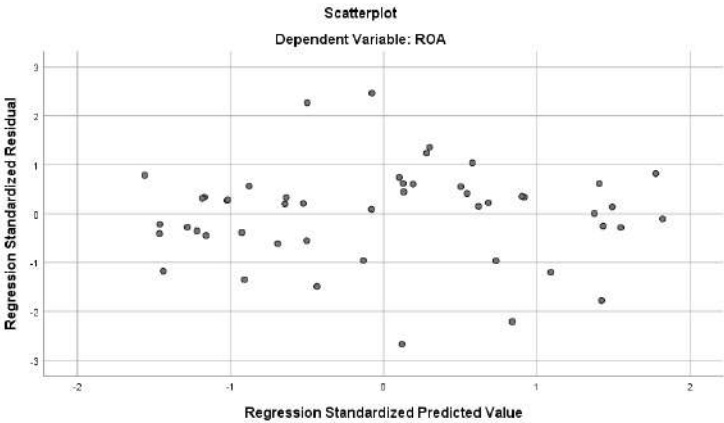


Figure IV.4
Scatterplot of the Heteroscedasticity Test

As can be seen in the figure, the residual points are scattered randomly and do not exhibit any specific pattern, whether clustered or dispersed. The even distribution around the horizontal line indicates that the variation in the residuals is constant or homogeneous. In other words, it can be concluded that this regression model shows no signs of heteroscedasticity, meaning that the assumption regarding the consistency of residual variance has been met.

Multicollinearity Test

In this study, the researcher used the tolerance and variance inflation factor (VIF) to test for multicollinearity. Generally, a regression model is considered free from multicollinearity if the tolerance value is greater than 0.10 and the VIF value is less than 10. The following are the test results:

Table IV.21
Multicollinearity Test Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
		B	Std. Error	Beta	t		Tolerance	VIF
1	(Constant)	.024	.040		.587	.560		
	accounts receivable turnover	.014	.006	.325	2,168	.035	.876	1,142
	inventory turnover	-.009	.007	-.179	-1,192	.239	.876	1,142

a. Dependent Variable: ROA

The results of the multicollinearity test in the table above show that the Tolerance value for both variables is 0.876 (>0.10) and the VIF value is 1.142 (<10). Thus, it can be concluded that there is no multicollinearity between the Receivables Turnover and Inventory Turnover variables in the regression model.

Linearity Test (time series data)

Table IV.22
Linearity Test Results

Model Summary^b

Model	R	R-Square	Adjusted Square	R-Standard Error of the Estimate	Durbin-Watson
1	.310 ^a	.096	.057	.08025	.967

a. Predictors: (Constant), inventory turnover, accounts receivable turnover

b. Dependent Variable: ROA

Based on the test results, a Durbin-Watson (DW) value of 0.967 was obtained. According to Ghazali (2013), if the DW value falls between -2 and +2, it can be concluded that there is no autocorrelation in the regression model. The DW value in this study, 0.967, falls

between -2 and +2; therefore, it can be concluded that the regression model is free from autocorrelation.

Hypothesis Testing

After passing the classical assumption tests, the next step is to test the data

Partial Test (T)

Table IV.23
Results of the Partial T-Test

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t
1	(Constant)	.024	.040		.587
	receivable turnover	.014	.006	.325	2.168
	inventory turnover	-.009	.007	-.179	-1.192

a. Dependent Variable: ROA

The t-test is used to determine the partial effect of each independent variable (RTO and ITO) on the dependent variable (ROA). The critical t-value for this study, with $\alpha = 0.05$ and $df = n-k-1 = 49-2-1 = 46$, is 2.013.

Simultaneous Test

Table IV.24
Results of the Simultaneous Test (Partial F)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.032	2	.016	2.454	.097 ^b
	Residual	.296	46	.006		
	Total	.328	48			

a. Dependent Variable: ROA

b. Predictors: (Constant), inventory turnover, receivables turnover

Based on the results of the F-test in the table above, the calculated F-value is 2.454 with a significance level of 0.097. Since the calculated F-value is less than the critical F-value ($2.454 < 3.200$) and the significance level is greater than 0.05, H_0 is accepted and H_a is rejected. Thus, it can be concluded that, taken together, Receivables Turnover (RTO) and Inventory Turnover (ITO) do not have a significant effect on Return on Assets (ROA).

Coefficient of Determination Test

Table IV.25
Results of the Coefficient of Determination Test

Model Summary^b

Model	R	R-Square	Adjusted Square	R-Standard Error of the Estimate	Durbin-Watson
1	.310 ^a	.096	.057	.08025	.967

a. Predictors: (Constant), inventory turnover, accounts receivable turnover

b. Dependent Variable: ROA

Based on the table above, the Adjusted R-Square value is 0.057. This indicates that the variables Receivables Turnover (RTO) and Inventory Turnover (ITO) together account for only 5.7% of the variation in Return on Assets (ROA), while the remaining 94.3% is

explained by other factors not examined in this research model.

Regression Coefficient Test

Multiple linear regression analysis was used to determine the effect of Receivables Turnover (RTO) and Inventory Turnover (ITO) on Return on Assets (ROA).

Table IV.26

Results of Multiple Linear Regression Analysis

Variables	B	t	Sig.
(Constant)	0.024	0.587	0.560
RTO	0.014	2.168	0.035
ITO	-0.009	-1.192	0.239

Source: IBM SPSS Analysis Results (Data processed, 2026)

Based on the regression analysis results in the table above, the following multiple linear regression equation was obtained:

$$\text{ROA} = 0.024 + 0.014 \text{ RTO} - 0.009 \text{ ITO} + e$$

The regression equation can be interpreted as follows:

1. A constant value of 0.024 indicates that if the RTO and ITO variables are zero, then ROA will be 0.024, or 2.4%.
2. The RTO regression coefficient of 0.014 indicates a positive relationship. This means that a one-unit increase in RTO will increase ROA by 0.014 or 1.4%, assuming all other variables remain constant (*ceteris paribus*).
3. The regression coefficient for ITO of -0.009 indicates a negative relationship. This means that a one-unit increase in ITO will decrease ROA by 0.009 or 0.9%, assuming all other variables remain constant.

DISCUSSION

The Effect of Receivables Turnover on Return on Assets

The results of this study show that Receivables Turnover (RTO) has a positive and significant effect on Return on Assets (ROA) for pharmaceutical companies listed on the Indonesia Stock Exchange. The higher the RTO, the higher the profit, as effective receivables management and collection accelerate the conversion of receivables into cash to support operations. In signaling theory, RTO sends a positive signal regarding receivables management. These results are consistent with those of Meraj et al. (2024), Putrawan et al. (2022), Ristati et al. (2024), and Riskiya & Edastami (2023). However, they differ from the findings of Gurning (2024), Hadian et al. (2024), Humairoh & Kenedi (2024), and Karmila et al. (2024). These differences are likely due to sector characteristics, credit policies, and the accounts receivable cycle.

The Effect of Inventory Turnover on Return on Assets

The results of this study indicate that Inventory Turnover (ITO) does not have a significant effect on Return on Assets (ROA) for pharmaceutical companies listed on the Indonesia Stock Exchange. This suggests that inventory turnover does not directly influence a company's ability to generate profits. This is related to the pharmaceutical industry, which has long production and distribution cycles and is strictly regulated by the Food and Drug Supervisory Agency. Inventory turnover is influenced by the availability of raw materials, the shelf life of drugs, and safety stock policies. These results are consistent with those of Cahyani et al. (2024), Khairani et al. (2024), Widiyanto

et al. (2024), and Titisnamia & Puspita (2023), who found that ITO does not have a significant effect on profitability.

The Effect of Receivables Turnover and Inventory Turnover on Return on Assets

The F-test results indicate that Receivables Turnover (RTO) and Inventory Turnover (ITO) do not simultaneously have a significant effect on Return on Assets (ROA), with an Adjusted R-Square value of 0.057 or 5.7%. This suggests that both variables contribute only marginally to explaining variations in the profitability of pharmaceutical companies. These findings suggest that profitability is more heavily influenced by other factors outside the model, such as capital structure, company size, operational cost efficiency, government policies in the healthcare sector, and macroeconomic conditions. These results align with the reference journal, which highlights a discrepancy between theory and empirical findings, indicating that an increase in activity ratios does not always lead to an increase in a company's profitability.

CONCLUSION

Based on the analysis and discussion conducted regarding the effects of Receivables Turnover (RTO) and Inventory Turnover (ITO) on Return on Assets (ROA) for pharmaceutical companies listed on the Indonesia Stock Exchange during the 2021–2025 period, the following conclusions can be drawn:

1. Receivables Turnover (RTO) has a positive and significant effect on Return on Assets (ROA). The higher the receivables turnover, the higher the company's profitability.
2. Inventory Turnover (ITO) does not have a significant effect on Return on Assets (ROA). Inventory turnover does not directly affect the profitability of pharmaceutical companies.
3. Taken together, Receivables Turnover (RTO) and Inventory Turnover (ITO) do not have a significant effect on Return on Assets (ROA), contributing 5.7% each, while the remaining 94.3% is influenced by other factors outside the research model.

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