Financial Performance Analysis Before And After Acquisition and its Impact on Sustainable Growth Rate in the Pharmaceutical Industry

Selamet Riyadi[1], Ida Suhardiah[2], Deni Ratna Damayanti[3]

ARTICLE INFO	ABSTRACT
Published Online: 04 November 2023	This research aims to understand and analyze whether there is a difference in Current Ratio (CR), Debt-Equity Ratio (DER), Total Assets Turnover (TATO), Inventory Turnover (ITO), Net Profit Margin (NPM), Return On Assets (ROA) , Return On Equity (ROE) before and after acquisition, as well as whether there is an influence of Debt-Equity Ratio (DER), Total Assets Turnover (TATO), Current Ratio (CR) and Return On Assets (ROA) on Sustainable Growth Rate (SGR) in the Pharmaceutical Industry listed on the Indonesian Stock Exchange (IDX) and the National Stock Exchange of India (NSE) which carried out acquisitions in 2012-2022. The research method used is a quantitative method based on secondary data and the population of Pharmaceutical Industries registered on the IDX and NSE India, then non-probability sampling - purposive sampling was carried out. Data testing and hypothesis testing were carried out with the help of IBM Statistics SPSS 25, namely the Wilcoxon Signed Rank Test, Kendall's tau test, multiple regression test, t statistical test, and F statistical test. The test results showed that there was a significant difference for the Total Assets Turnover (TATO), Inventory Turnover (ITO), Return On Assets (ROA), and Return On Equity (ROE) between before and after the acquisition, and there is a significant influence of Total Assets Turnover (TATO), Current Ratio (CR), dan Return On Assets (ROA) partially on the Sustainable Growth Rate (SGR) and there is an influence of the Debt-Equity Ratio (DER), Total Assets Turnover (TATO), Current Ratio (CR) and Return On Assets (ROA) simultaneously affect the Sustainable Growth Rate (SGR).
Corresponding Author: **Ida Suhardiah**	
KEYWORDS: Acquisition, Growth, Financial Performance, SGR, Sustainable Growth Rate	

INTRODUCTION

Globally, world trade in pharmaceutical products continues to increase, for 4 years (2016-2019), exports of pharmaceutical products throughout the world showed an increasing trend of 7.8% for the period 2016 to 2019. The supply of pharmaceutical products in the world market is dominated by European countries and United States of America. Western European countries dominate the pharmaceutical trade dominantly, this is because many players in the pharmaceutical sector come from that region, such as Switzerland, the Netherlands and Belgium, followed by North America and Asia. China and India are the two big players in Asia based on market share in the volume of pharmaceutical products. Globally, the pharmaceutical market is dominated by developed countries such as the United States, Japan, China and countries in the European region, while the Indonesian pharmaceutical market is ranked 26th in the world. In the last 5 years period (2015-2019), the domestic pharmaceutical industry has increased, from 198

industries in 2015 to 230 industries in 2019 (Ministry of Industry, 2021).

With the increase in the pharmaceutical industry in the country, there will be more competition, so companies must grow in order to survive or even win the competition. Company growth can be achieved in 2 ways, namely through internal or organic growth and through Merger or Acquisition. Company growth through internal or organic growth is growth from within the company itself without mergers or acquisitions with other companies. However, the trend of this choice is usually slower than through mergers or acquisitions (Tarigan et al., 2017).

In Indonesia, according to data on idx.co.id and the company website, in the period 2012-2022, several pharmaceutical industries that made acquisitions include PT Kalbe Farma Tbk, PT Industri Jamu dan Farmasi Sidomuncul Tbk, PT Pyridam Farma Tbk (PYFA), and there are 2 state-owned companies, namely PT Phapros Indonesia Tbk and PT Kimia Farma Tbk.

In the period 2012-2022, several large pharmaceutical companies in India made acquisitions, including Lupine Ltd, Dr. Reddy's Laboratories, Torrent Pharma, Cipla Ltd, Aurobindo, and Biocon Biologics (Furtado, 2017) (Pallavi, Ritika Sinha, 2019) (PWC.com, 2023).

LITERATURE REVIEW
Acquisition
An acquisition is the takeover of ownership or control over the shares or assets of a company by another company, and in this event both the acquiring company and the one being taken over continue to exist as separate legal entities (Moin, 2010:7). An acquisition is a business combination in which one of the companies, namely the acquirer, obtains control over the net assets and operations of the company being acquired (acquiree), by providing certain assets, recognizing a liability or issuing shares (PSAK No. 22). An acquisition is a type of merger where one company takes over ownership of another company so that even though the name of the target company remains, ownership has transferred to the acquiring company. This process is often known as a subsidiary merger (Tarigan et.al, 2017:8).

Financial performance
Financial performance is an analysis carried out to see the extent to which a company has implemented financial implementation rules properly and correctly (Fahmi, 2020:271). Financial performance is a measure of how well or not a company can use its assets to generate profits, so it can be used to compare with similar companies in the same industry or can be compared with the industry average (Gozali and Rosinta, 2019). Financial performance is management's achievement in terms of financial management in achieving company goals, namely generating profits and increasing company value (Zuhri et.al, 2020). According to Kasmir (2021:106) to measure a company's financial performance using financial ratios, it can be done with several financial ratios.

Current Ratio (CR)
Current Ratio (CR) is included in the liquidity ratios. Current Ratio (CR) is a ratio that measures a company's ability to pay short-term liabilities or debts that are due soon when they are billed as a whole, in other words how much current assets are available to cover short-term liabilities that are due soon.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$
(Kasmir, 2021)

Debt to Equity Ratio (DER)
Debt to Equity Ratio (DER) is a solvency ratio. Debt to Equity Ratio (DER) is a ratio that assesses debt against equity. This ratio is obtained by comparing all debt, including current debt, with all equity. This ratio is useful for knowing the amount of funds provided by creditors and company owners, in other words, this ratio functions to find out every rupiah of own capital used as collateral for debt.

$$\text{Debt to Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$
(Kasmir, 2021)

Total Assets Turn Over (TATO)
Total Assets Turn Over (TATO) is included in the activity ratio. Total Assets Turn Over (TATO) is a ratio used to measure the turnover of assets owned by a company and measure the amount of sales obtained from each rupiah of assets.

$$\text{Total Assets Turn Over} = \frac{\text{Sales}}{\text{Total Assets}}$$
(Kasmir, 2021)

Inventory Turn Over (ITO)
Inventory Turn Over (ITO) is included in the activity ratio. Inventory Turn Over (ITO) is a ratio used to measure how many times the funds invested in inventory are turned over in one period.

$$\text{Inventory Turn Over} = \frac{\text{Sales}}{\text{Inventory}}$$
(Kasmir, 2021)

Net Profit Margin (NPM)
Net Profit Margin (NPM) is included in the profitability ratios. Net Profit Margin (NPM) is a measure of profit by comparing profit after interest and tax compared to sales. This ratio shows the company's net income from sales.

$$\text{Net Profit Margin} = \frac{\text{Earning after Interest and Tax}}{\text{Sales}}$$
(Kasmir, 2021)

Return on Assets (ROA)
Return on Assets (ROA) is included in the profitability ratios. Return on Assets (ROA) is a ratio that shows the results (return) on the number of assets used in the company. ROA is also a measure of management's effectiveness in managing its investments.

$$\text{Return on Assets} = \frac{\text{Earning after Interest and Tax}}{\text{Total Assets}}$$
(Kasmir, 2021)

Return on Equity (ROE)
Return on Equity (ROE) is included in the profitability ratios. Return on Equity (ROE) is a ratio to measure net profit after tax with own capital. This ratio shows the efficiency of using

own capital. The higher this ratio, the better, meaning the position of the company owner is stronger, and vice versa.

$$Return\ on\ Equity = \frac{Earning\ after\ Interest\ and\ Tax}{Equity}$$

(Kasmir, 2021)

Sustainable Growth Rate (SGR)

In the PT Kalbe Farma Tbk yearbook (2021) and according to Prihadi (2021), what the company wants is to be in a stage of continuous growth (sustainable growth). This can be recognized by the demand for continuous increases in sales and profits.

Sustainable growth rate (SGR) is the maximum level at which a company's sales can increase without depleting financial resources (Higgins, 2012). According to Ross (2013), there is a direct relationship between growth and external funding or debt. One way to analyze company growth which is very useful in long-term planning is by measuring the Sustainable Growth Rate (SGR). Sustainable Growth Rate (SGR) is the maximum growth rate that a company can maintain without having to finance growth with additional equity or debt (Murphy, 2022).

Sustainable Growth Rate = Return On Equity × (1- Dividend Payout Ratio)
(Ross, et.al. 2013)

FRAMEWORK

Based on the literature review and previous research, the research framework can be arranged as shown in Figure 1.

HYPOTHESIS DEVELOPMENT

Previous researchers have studied the comparison of the company's financial performance before and after the acquisition. They found that there is a difference in CR according to Damayanti et.al (2020), Ahmad and Maria Adventia Mentari Mayang Cardicna (2020), Irawan, Edi (2021), there is a difference in DER according to Damayanti et.al. (2020), Samodra, Sri Mulyati (2022), Zuhri et.al. (2020), Irawan, Edi (2021), there is a difference in TATO according to Damayanti et.al. (2020), Afgan, Sumiati, Ainur Rofiq (2021), Poddar (2019), there is a difference in ITO

according to Poddar (2019), there is a difference in NPM according to Gozali, Rosinta Ria Panggabean (2019), Mindosa (2019), Dutta, Soumya Mukherjee (2019), there is a difference in ROA according to Samodra, Sri Mulyati (2022), Irawan, Edi (2021), and there is a difference in ROE according to Damayanti et.al. (2020). Based on theory and previous research, the following research hypothesis is obtained:

H1:   There is a difference in CR before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H2:   There is a difference in DER before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H3:   There is a difference in TATO before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H4:   There is a difference in ITO before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H5:   There is a difference in NPM before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H6:   There is a difference in ROA before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

H7:   There is a difference in ROE before and after the acquisition in 2012-2022 in pharmaceutical companies listed on the IDX and NSE India.

Regarding company growth, it can be observed from previous research that several conclusions related to company growth are as follows: DER influences SGR according to Indarti, Ika Berty Apriliyani, Dini Onasis, (2021), Priyanto, Robiyanto (2020), Indriati, Nana Nawasiah, Bayu Retno W (2020), Andari,
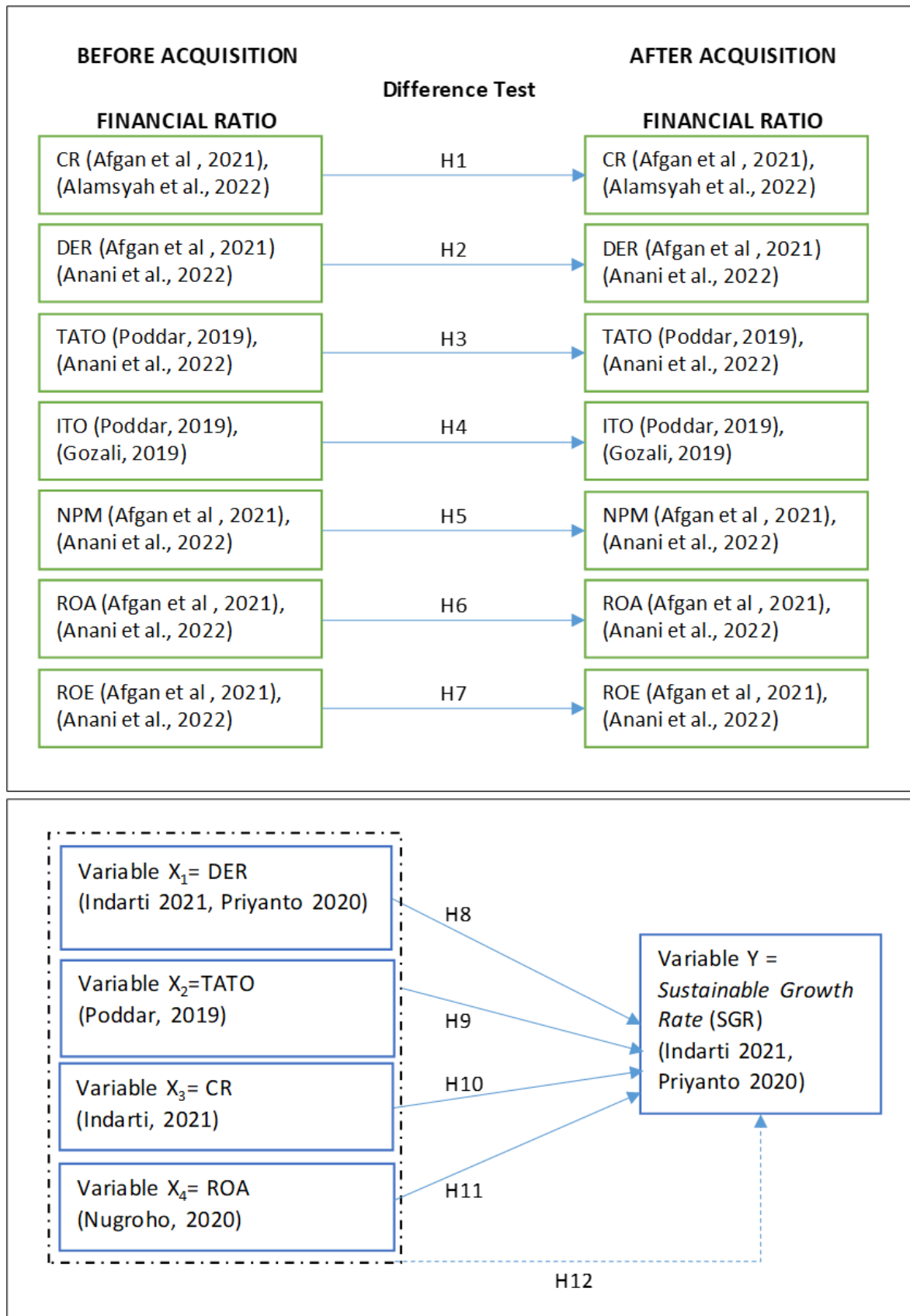
Figure 1. Framework

Elmi Rakhma Aalin, Eti Putranti (2021), Mumu, Sherly Susanto, Paskanova Gainau (2019), TATO influences SGR according to Nastiti, Apriani Dorkas Rambu Atahau, Supramono (2020), Indriati, Nana Nawasiah, Bayu Retno W

(2020), Mumu, Sherly Susanto, Paskanova Gainau (2019), according to Indarti, Ika Berty Apriliyani, Dini Onasis (2021), CR influences SGR according to Nugroho (2020), and ROA has a significant effect on SGR according to Indarti, Ika Berty Apriliyani, Dini Onasis (2021).

Based on theory and previous research, the research hypothesis are as follows:

H8: There is an influence of DER on the SGR of pharmaceutical companies listed on the IDX and NSE India, which carried out acquisition in 2012-2022

H9: There is an influence of TATO on the SGR of pharmaceutical companies listed on the IDX and NSE India, which carried out acquisition in 2012-2022

H10: There is an influence of CR on the SGR of pharmaceutical companies listed on the IDX and NSE India, which carried out acquisition in 2012-2022

H11: There is an influence of ROA on the SGR of pharmaceutical companies listed on the IDX and NSE India, which carried out acquisition in 2012-2022

H12: There is a simultaneous influence of DER, TATO, CR, ROA on the SGR of pharmaceutical companies listed on the IDX and NSE India, which carried out acquisition in 2012-2022

This research addresses seven (7) independent variables, which will be tested for differences between before and after the acquisition, namely Current Ratio (CR), Debt to Equity Ratio (DER), Total Asset Turnover (TATO), Inventory Turnover Ratio (ITO), Net Profit Margin (NPM), Return on Assets (ROA), and Return On Equity (ROE). Meanwhile, for the regression test, this research will test four (4) independent variables, namely X_1= Debt to Equity Ratio (DER), X_2= Total Asset Turnover (TATO), X_3= Current Ratio (CR), dan X_4= Return on Assets (ROA), which will be examined for their effect on one (1) dependent variable, namely Y= Sustainable Growth Rate (SGR).

RESEARCH METHODS

The data analysis method used in this study is quantitative data analysis, which involves numerical data and employs statistical calculations to analyze research hypothesis. The quantitative research method used in this study is a comparative method. As stated by Sugiyono (2020:36), a comparative formulation is a research problem formulation that compares the existence of one or more variables in two or more different samples, or at different times. Additionally, it also employs correlation analysis to find the direction and strength of the relationship between two or more variables, whether the relationship is symmetric or causal. Regression analysis is also used to predict the extent of changes in the value of the dependent variable when the value of the independent variable is manipulated or altered (Sugiyono, 2019:260).

Population

According to Sugiyono (2020:80-81), the population is a generalization area consisting of objects/subjects with specific qualities and characteristics determined by the researchers to be studied and then drawn conclusions from. Meanwhile, a sample is a part of the the the quantity and characteristics possessed by that population. In this study, the population consist of pharmaceutical companies listed on the Indonesian Stock Exchange, where according to idnfinancials.com there are 12 companies, while on the NSE (National Stock Exchange) India, there are 24 local Indian pharmaceutical companies listed.

Sample of Research

The sample in this research consist of pharmaceutical industries listed on the Indonesian Stock Exchange and the National Stock Exchange of India which carried out acquisitions during the period from 2012-2022. In this research, the sampling was conducted using *non-probability purposive sampling*, with the following criteria:

a. Public companies listed on the Indonesian Stock Exchange (IDX) and the National Stock Exchange of India (NSE) which engaged in acquisition activities between 2012 and 2022.

b. Companies that engaged in acquisition activities and are pharmaceutical companies (medicinal drugs).

c. Publishing financial reports before and after the acquisition period from 2012 to Q1 2023.

Based on these criteria, a total of eleven (11) pharmaceutical industries were found to meet the qualifications to be used as research samples. These include PT Kalbe Farma Tbk, PT Industri Jamu dan Farmasi Sidomuncul Tbk, PT Pyridam Farma Tbk (PYFA), PT Phapros Indonesia Tbk and PT Kimia Farma Tbk in Indonesia, and pharmaceutical industries in India such as Lupine Ltd, Dr. Reddy's Laboratories, Torrent Pharma, Cipla Ltd, Aurobindo, and Biocon Biologics (Furtado, 2017) (Pallavi, Ritika Sinha, 2019) (PWC.com, 2023).

RESEARCH RESULTS AND DISCUSSION
Difference Test
Table 1. Kolmogorov-Smirnov and Shapiro-Wilk Normality Test results

Variable	Kolmogorov-Smirnov Sig.	Shapiro-Wilk Sig.	Significance Level	Information
CR	0.000	0.000	0.05	Data is not normally distributed
DER	0.027	0.000	0.05	Data is not normally distributed
TATO	0.002	0.003	0.05	Data is not normally distributed
ITO	0.004	0.000	0.05	Data is not normally distributed
NPM	0.029	0.102	0.05	Data is not normally distributed
ROA	0.200	0.474	0.05	Data is normally distributed
ROE	0.032	0.000	0.05	Data is not normally distributed

Source: SPSS Output, 2023

The results of the Kolmogorov-Smirnov and Shapiro-Wilk normality test indicate that only the ROA variable is normally distributed, while the CR, DER, TATO, ITO, NPM and ROE variables are not normally distributed. Therefore, the difference test will use the Wilcoxon signed-rank test.

Table 2. Wilcoxon signed rank test results before and after the acquisition

Variable	Z	Sig.	Significance Level	Information
CR	- 0.689	0.491	0.05	There is no difference
DER	- 0.206	0.837	0.05	There is no difference
TATO	-4.238	0.000	0.05	There are differences
ITO	-2.808	0.005	0.05	There are differences
NPM	-1.539	0.124	0.05	There is no difference
ROA	-3.598	0.000	0.05	There are differences
ROE	-3.743	0.000	0.05	There are differences

Source: SPSS Output, 2023

Classic assumption Test
Table 3. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
DER	0.539	1.855
TATO	0.585	1.709
CR	0.681	1.469
ROA	0.426	2.347

a. Dependent Variable: SGR
Source: SPSS Output, 2023

From the table of multicollinearity test results, it can be observed that the tolerance value for all independent variables are greater than 0.10 and the VIF value for all independent variables are less than 10. Therefore, it can be concluded that there is no multicollinearity in the regression model.

Table 4. Autocorrelation Test Results

Model Summary [b]

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.933 [a]	0.870	0.860	0.03175	1 . 925

a. Predictors: (Constant). ROA. CR. TATO. DER
b. Dependent Variable: SGR
Source: SPSS Output, 2023

The comparison result is (du = 1.7266) < 1.925 < (4 − 1.7266 = 2.2734), which means that the decision is to accept H_0, indicating that there is no autocorrelation among the independent variables.

Table 5. Heteroscedasticity Test Results (Spearman's rho Test)

		Unstandardized Residuals Sig. (2-tailed)
Spearman's rho	DER	0.262
	TATO	0.404
	CR	0.814
	ROA	0.887

Source: SPSS Output, 2023

The results show that the Sig. values are all > 0.05, indicating that there is no heteroscedasticity present.

The One-Sample Kolmogorov-Smirnov Normality Test results show a Sig. value > 0.05. Therefore, it can be concluded that the residual data is normally distributed and passes the normality test.

Table 6. One-Sample Kolmogorov-Smirnov Normality Test Results

		Unstandardized Residual
N		59
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	0.03063450
Most Extreme Differences	Absolute	0.086
	Positive	0.053
	Negative	-0.086
Test Statistic		0.086
Asymp. Sig. (2-tailed)		0.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
Source: SPSS Output, 2023

Kendall's correlation Test

Table 7. Kendall's Tau correlation test result

Correlations			DER	TATO	CR	ROA	SGR
Kendall's tau_b	DER	Correlation Coefficient	1.000	-0.333 **	-0.650 **	-0.438 **	0.048
		Sig. (2-tailed)	.	0.000	0.000	0.000	0.600
		N	59	59	59	59	59
	TATO	Correlation Coefficient	- 0.333 **	1.000	0.258 **	0.527 **	0.279 **
		Sig. (2-tailed)	0.000	.	0.004	0.000	0.002
		N	59	59	59	59	59
	CR	Correlation Coefficient	- 0.650 **	0.258 **	1.000	0.379 **	-0.120
		Sig. (2-tailed)	0.000	0.004	.	0.000	0.186
		N	59	59	59	59	59
	ROA	Correlation Coefficient	- 0.438 **	0.527 **	0.379 **	1.000	0.477 **
		Sig. (2-tailed)	0.000	0.000	0.000	.	0.000
		N	59	59	59	59	59
	SGR	Correlation Coefficient	0.048	0.279 **	- 0.120	0.477 **	1.000
		Sig. (2-tailed)	0.600	0.002	0.186	0.000	.
		N	59	59	59	59	59

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Output, 2023

The Kendall's Tau test results indicate that the dependent variables Debt to Equity Ratio (DER) and Current Ratio (CR) have no relationship with the independent variable Sustainable Growth Rate (SGR). However, for the variables Total Asset Turnover (TATO) and Return on Assets (ROA), there is a significant and positive relationship with Sustainable Growth Rate (SGR). Based on the Kendall's Tau test, it can be explained that the higher the Total Asset Turnover (TATO) and Return on Assets (ROA), the higher the Sustainable Growth Rate (SGR).

According to Murphy (2020), companies with a high Sustainable Growth Rate (SGR) are typically effective in maximizing their sales efforts, focusing on high-margin products, managing inventory, accounts payable, and accounts receivable. However, a consistently high SGR in the long term can be pose challenges for a company due to increased competition entering the market, changes in economic conditions, and greater demands for research and development.

Coefficient of Determination R^2 Test

Table 8. Coefficient of Determination R^2 Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.933[a]	0.870	0.860	0.03175

Source: Output SPSS 2023

From the table above, it can be observed that the Determination Coefficient (R Square) value is 0.870, which means that 87.0% of the variation in Sustainable Growth Rate (Y) is influenced by the Debt to Equity Ratio (X_1), Total Assets Turnover (X_2), Current Ratio (X_3), and Return on Assets (X_4), while the remaining 13.0% is explained by other variables not examined in this research.

Statistical t Test

Table 9. Statistical t Test Results

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	0.077	0.020		3.823	0.000
DER	0.011	0.009	0.081	1.214	0.230
TATO	-0.077	0.019	- 0.255	-3.967	0.000
CR	-0.032	0.003	- 0.672	-11.286	0.000
ROA	1.710	0.109	1.183	15.723	0.000

Source: SPSS output, 2023

Based on the SPSS output, the t-test indicates that Debt to Equity Ratio (DER) does not have a significant partial effect on Sustainable Growth Rate (SGR), whereas Total Asset Turnover (TATO), Current Ratio (CR), and Return on Assets (ROA) each have a significant partial effect on Sustainable Growth Rate (SGR).

Statistical F Test

Table 10. Statistical F Test Results

ANOVA [a]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	0.363	4	0.091	90.121	0.000 [b]
Residual	0.054	54	0.001		
Total	0.418	58			

a. Dependent Variable: SGR
b. Predictors: (Constant), ROA, CR, TATO, DER

Source: SPSS output, 2023

From the results of the F-test, the calculated F value is 90.121, which is greater than F table value of 2.54, with a Sig. (significance) level of 0.000, which is less than 0.05. Therefore, H_0 is rejected, and H_a is accepted, meaning that the independent variables Debt to Equity Ratio (DER), Total Assets Turnover (TATO), Current Ratio (CR), and Return on Assets (ROA) simultaneously have a significant influence on Sustainable Growth Rate (SGR).

Multiple Regression Analysis

Table 11. Multiple Regression Analysis

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	0.077	0.020		3.823	0.000
DER	0.011	0.009	0.081	1.214	0.230
TATO	-0.077	0.019	- 0.255	-3.967	0.000
CR	-0.032	0.003	- 0.672	-11.286	0.000
ROA	1.710	0.109	1.183	15.723	0.000

Source: SPSS output, 2023

From the multiple regression test results, the following regression equation is obtained:

$$Y = 0.077 + 0.011 X_1 - 0.077 X_2 - 0.032 X_3 + 1.71 X_4$$

The results of hypothesis testing in this research based on the Wilcoxon Signed Rank Test, t-Test, and F-Test are as follows:

- H1: There is no difference in CR before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the Wilcoxon Signed Rank test, the obtained Asymp Sig 2 tailed value is 0.491 > 0.05, meaning that Hypothesis 1 is rejected.

- H2: There is no difference in DER before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the Wilcoxon Signed Rank test, the obtained Asymp Sig 2 tailed value is 0.837 > 0.05, meaning that Hypothesis 2 is rejected.

- H3: There is a difference in TATO before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the Wilcoxon Signed Rank test, the obtained Asymp Sig 2 tailed value is 0.000 < 0.05, meaning that Hypothesis 3 is accepted.

- H4: There are differences in ITO before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the Wilcoxon Signed Rank test, the obtained Asymp Sig 2 tailed value is 0.005 < 0.05, meaning that Hypothesis 4 is accepted.

- H5: There is no difference in NPM before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the *Wilcoxon Signed Rank* test, the obtained Asymp Sig 2 tailed value is 0.124 > 0.05, meaning that Hypothesis 5 is rejected.

- H6: There is a difference in ROA before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the *Wilcoxon Signed Rank* test, the obtained Asymp Sig 2 tailed value is 0.000 < 0.05, meaning that Hypothesis 6 is accepted.

- H7: There is a difference in ROE before and after the acquisition in 2012-2022 in pharmaceutical companies listed on IDX and NSE India. Based on the *Wilcoxon Signed Rank* test, the obtained Asymp Sig 2 tailed value is 0.000 < 0.05, meaning that Hypothesis 7 is accepted.

- H8: There is no influence of DER on the SGR of pharmaceutical companies listed on IDX and NSE India, which carried out acquisition in 2012-2022. Based on the statistical t-test results, the calculated t-value is 1.214, which is less than the tabulated t-value of 2.00172, and the significance level (Sig.) is 0.230, which is greater than 0.05. Therefore, Hypothesis 8 is rejected.

- H9: There is an influence of TATO on the SGR of pharmaceutical companies listed on IDX and NSE India, which carried out acquisition in 2012-2022. Based on the statistical t-test results, the calculated t-value is 3.957, which is greater than the tabulated t-value of 2.00172, and the significance level (Sig.) is 0.000, which is less than 0.05. Therefore, Hypothesis 9 is accepted.

- H10: There is an influence of CR on the SGR of pharmaceutical companies listed on IDX and NSE India, which carried out acquisition in 2012-2022. Based on the statistical t-test results, the calculated t-value is 11.286, which is greater than the tabulated t-value of 2.00172, and the significance level (Sig.) is 0.000, which is less than 0.05. Therefore, Hypothesis 10 is accepted.

- H11: There is an influence of ROA on the SGR of pharmaceutical companies listed on IDX and NSE India, which carried out acquisition in 2012-2022. Based on the statistical t-test results, the calculated t-value is 15.723, which is greater than the tabulated t-value of 2.00172, and the significance level (Sig.) is 0.000, which is less than 0.05. Therefore, Hypothesis 11 is accepted.

- H12: There is a simultaneous influence of DER, TATO, CR, ROA on the SGR of pharmaceutical companies listed on he IDX and NSE India, which carried out acquisition in 2012-2022. Based on the statistical F-test result, the calculated F-value is 90.121, which is greater than the tabulated F-value of 2.54, and the significance level (Sig.) is 0.000, which is less than 0.05. Therefore, Hypothesis 12 is accepted.

Interpretation of Research Results

Current Ratio (CR): The test results indicate that there is no significant difference in the CR variable between before and after the acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), companies should monitor the relationship between current liabilities and current assets. A company with a low CR suggests that it has limited working capital (current assets) to meet short-term obligations. High CR may occur due to poor inventory management and cash management.

Debt to Equity Ratio (DER): The test results indicate that there is no significant difference in the DER variable between before and after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), a higher DER implies that a

smaller portion of owner's equity can be used as collateral for debt.

Total Asset Turnover (TATO): The test results show a significant difference in the TATO variable between before and after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), TATO is a ratio used to measure the effectiveness of managing the total assets a company owns in generating sales. The formula for TATO (Total Assets Turnover) is total sales divided by total assets. A low asset turnover indicates that the company has excess total assets, where the total assets have not been fully utilized to generate sales. It is important for companies to increase sales and reduce less productive assets.

Inventory Turnover (ITO): The test results indicates a significant difference in the ITO variable between before and after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. ITO (Inventory Turnover) is a ratio used to measure how many times the funds invested in inventory will turn over or how long (in days) the average inventory remains stored in the warehouse until it is eventually sold. In other words, this ratio illustrates how quickly inventory is successfully sold to customers. A higher ITO (Inventory Turnover) indicates that the working capital invested in inventory is smaller, which is favorable for the company.

Net Profit Margin (NPM): The test results indicate that there is no significant difference in the NPM variable between before and after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), a higher NPM implies a higher net profit generated from sales.

Return on Assets (ROA): The test results indicate that there is a significant difference in the ROA variable between before and after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), ROA (Return on Assets) is a profitability ratio which measures how much net profit is generated from total assets owned. A higher ROA implies a higher amount of net profit generated from total assets owned. Low ROA may be attributed to suboptimal sales, unproductive assets, underutilization of assets to create sales, and high costs.

Return on Equity (ROE): The test results indicate a significant difference in the ROE variable between before and

after acquisition in pharmaceutical companies listed on the IDX and pharmaceutical companies listed on the NSE India, that carried out acquisitions in 2012-2022. According to Hery (2022), ROE (Return on Equity) is a profitability ratio which measures how much net profit is generated from total equity or capital. A higher ROE implies a higher net profit generated from the equity or capital owned.

The results regarding the influence of DER on Sustainable Growth Rate (SGR): The test results indicate that Debt to Equity Ratio (DER) does not have a significant partial effect on Sustainable Growth Rate (SGR).

The results regarding the influence of TATO on Sustainable Growth Rate (SGR): The test results indicate that Total Assets Turnover (TATO) have a significant partial effect on Sustainable Growth Rate (SGR).

The results regarding the influence of CR on Sustainable Growth Rate (SGR) The test results indicate that Current Ratio (CR) does not have a significant partial effect on Sustainable Growth Rate (SGR).

The results regarding the influence of ROA on Sustainable Growth Rate (SGR): The test results indicate that Return on Assets (ROA) have a significant partial effect on Sustainable Growth Rate (SGR).

The results regarding the influence of DER, TATO, CR, and ROA on SGR: The statistical F-test results indicate that the dependent variable Debt to Equity Ratio (DER), Total Assets Turnover (TATO), Current Ratio (CR), and Return on Assets (ROA) simultaneously have a significant effect on the independent variable Sustainable Growth Rate (SGR).

CONCLUSIONS AND RECOMMENDATIONS
Conclusion: The results of the research indicate that:
1. There is a significant difference in Total Assets Turnover (TATO), Inventory Turnover (ITO), Return on Assets (ROA), and Return on Equity (ROE) between before and after the acquisition in pharmaceutical companies listed on the IDX and the NSE in India, which carried out acquisition in 2012-2022.
2. There is no significant difference in Current Ratio (CR), Debt to Equity Ratio (DER), and Net Profit Margin (NPM) between before and after the acquisition in pharmaceutical companies listed on the IDX and the NSE in India, which carried out acquisition in 2012-2022.
3. Partially, Debt to Equity Ratio (DER) does not have significant effect on Sustainable Growth Rate (SGR) in pharmaceutical companies listed on the IDX and

the NSE in India, which carried out acquisition in 2012-2022.

4. Total Assets Turnover (TATO), Current Ratio (CR), and Return on Assets (ROA) each have a significant partial effect on Sustainable Growth Rate (SGR) in pharmaceutical companies listed on the IDX and the NSE in India, which carried out acquisition in 2012-2022.

5. Debt to Equity Ratio (DER), Total Assets Turnover (TATO), Current Ratio (CR), and Return on Assets (ROA) simultaneously have a significant effect on Sustainable Growth Rate (SGR) in pharmaceutical companies listed on the IDX and the NSE in India, which carried out acquisition in 2012-2022.

Suggestion: The following advice is intended for the improvement of future research endeavors, with the hope of achieving greater quality:

1) The maximization of asset management and the effectiveness of inventory management need to be improved to achieve operational and financial synergies in line with the acquisition's objectives, allowing for an increase in financial ratios such as TATO and ITO. Likewise, optimizing asset and capital utilization should be enhanced to attain optimal sales and net profit, thereby leading to an increase in ROA and ROE.

2) Inventory management, cash management, and cost-saving efforts should be enhanced to increase CR, DER and NPM.

3) Improving underperforming sales, utilizing unproductive assets, maximizing asset utilization to generate sales, and reducing costs to increase Return on Assets (ROA).

4) DER, TATO, CR, and ROA simultaneously have a significant effect on SGR, hence these ratios need to be improved to optimize SGR.

Recommendation: The recommendations provided for improvement in acquisition activities are as follows:

1) Company growth is crucial, but sustainable growth is even more vital to maintain, ensuring the company's ability to survive and compete in the current global economic landscape.

2) One of the objectives of acquisition activities is company growth. Hence, the factors influencing the success of acquisitions should be thoroughly studied and analyzed.

3) Thinking outside the box is required to analyze the factors causing acquisition failures.

4) Comprehensive risk assessment should be prepared both before and after the acquisition.

5) It is hoped that further research will increase the number of variables, whether they are from within the company, external to the company, or macroeconomic variables.

6) It is expected that future research will not only focus on the pharmaceutical sector but also encompass the entire healthcare sector. The findings of this study are expected to provide insights into acquisitions in the pharmaceutical industry.

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