

The Effect of Current Ratio (CR), Debt Equity Ratio (DER), Total Asset Turnover (TATO) on Return of Equity (ROE) in the Manufacturing Industry of Consumer Goods Sector in 2019-2021

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Received: November 06, 2023

Accepted: December 15, 2023

Published: December 28, 2023

Abstract

Manufacturing companies are the main pillar of industrial development in a country. The development of the manufacturing industry in a country can also be used to see national industrial development in that country. This development can be seen both from the aspect of the quality of the products produced and the performance of the industry as a whole. The manufacturing sector made the largest contribution to the increase in Indonesia's economic growth which reached 7.07% in the second quarter of 2021. This sector was the highest source of growth, namely 1.35%. The manufacturing sector itself recorded growth of 6.91% despite being under pressure. Due to the Covid-19 pandemic. This study aims to examine the effect of the variables Current Ratio (CR), Debt Equity Ratio (DER), Total Asset Turnover (TATO) on Return of Equity (ROE). The sampling technique used is panel data with the criteria for manufacturing companies in the consumer goods sector that publish financial reports (annual reports) for the 2019-2021 period. Obtained a total sample of 36 companies with a period of 3 years to obtain 108 data. The analysis technique used is multiple linear regression analysis equipped with normality, multicollinearity, autocorrelation, and heteroscedasticity tests to obtain an unbiased estimation model. The hypothesis was tested using the t-statistic to test the significance of the regression coefficient partially at a significance level of 5%. The results of this study indicate that the Current Ratio (CR) has a positive and significant effect on Return Of Equity (ROE) with a sig = 0.027 < 0.05, Debt To Equity Ratio (DER), has a positive and significant effect on Return Of Equity (ROE) with a sig = 0.014 < 0.05, Total Asset Turnover (TATO) has a positive and not significant effect on Return Of Equity (ROE) with a sig = 0.147 > 0.05.

Keywords: Current Ratio, Debt to Equity Ratio, Total Asset Turnover and Return of Equity

1. Introduction

The Indonesia Stock Exchange (IDX) is one of the places for stock trading transactions in Indonesia, various companies listed on the IDX that trade their shares are divided into several sectors. There are 9 sectors listed on the IDX, namely the agricultural sector, the mining sector, the basic industrial and chemical sectors, the various industrial sectors, the consumer goods industry sector, the property sector, real estate and building construction, the infrastructure sector, utilities and transportation, the financial sector, the trade sector, services and investments.

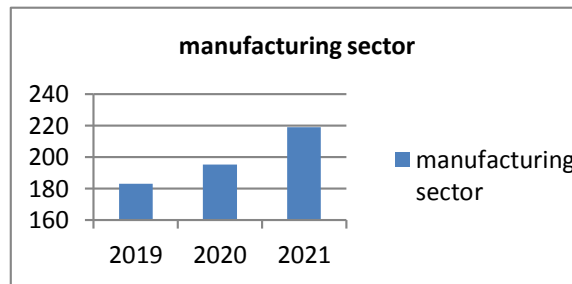
Manufacturing companies are the main pillar of industrial development in a country. The development of the manufacturing industry in a country can also be used to see national industrial development in that country. This development can be seen both from the aspect of the quality of the products produced and the performance of the industry as a whole.

According to the Ministry of Industry, (2021) the manufacturing sector made the largest contribution to the increase in Indonesia's economic growth, which reached 7.07% in the second quarter of 2021. This sector was the highest source of growth, namely 1.35%. The manufacturing sector itself recorded growth of 6.91% despite experiencing pressure due to the Covid-19 pandemic.

Table 1.1 Mapping Research Gap

Relationship Between Variables	Previous Research		Research Gap
<i>Current ratio (CR) to Return On Equity (ROE)</i>	Emi (2022)	Maya sari (2019)	Inconsistent
	significant	not significant	
<i>Debt To Equity Ratio (DER) To Return On Equity (ROE)</i>	Adji (2022)	Maya sari (2019)	Inconsistent
	significant	Not significant	
<i>Total Asset Turnover (TATO) Against Return On Equity (ROE)</i>	Emi (2022)	Christiana (2021)	Inconsistent
	significant	Not significant	

Source: Processed by researchers (2022)



Source: Processed by researchers (2022)

Picture 1.1 Number of companies in the manufacturing sector

Based on Figure 1.1 it shows that the number of companies in the manufacturing sector in 2019 was 181 companies. Furthermore, in 2020 companies in the manufacturing sector experienced a slight increase of 195 companies. despite being under pressure due to the Covid-19 pandemic that has entered Indonesia since 2020, then in 2021 companies in the manufacturing sector experienced a fairly high increase of around 219 companies, in 2021 the manufacturing industry sector began to revive. This can be seen from a number of brilliant performances, including investment realization, export achievements, tax contributions, contribution to GDP, and Purchasing Managers Index (PMI) ratings.

The number of consumer goods industries or fast moving consumer goods (FMCG) is increasing, this is because consumer goods are one of the needs of humans in carrying out their daily lives, so that the demand for consumer goods remains stable which can affect the ability to get good and optimal profits. from consumer goods companies. One of the promising business opportunities is the FMCG industry. Companies in the FMCG industry have high performance which allows companies to control each of their operations to generate profits and maximize profitability and control working capital turnover. (mediaindonesia, 2021).

The consumer goods sector has 6 sub-sectors, namely the food and beverage sub-sector, then the cigarette sub-sector, then the pharmaceuticals sub-sector, then the cosmetics and household goods sub-sector, then the household appliances sub-sector and finally the other sub-sectors. The most important achievement that must be achieved by every company to measure management's success in managing and allocating the various resources it has is the company's financial performance.

2. Literature Review

2.1 Current Ratio (CR)

The Current Ratio is the ratio used by the company to measure the company's ability to pay all of its short-term obligations that are due soon (Kasmir, 2019: 134). The greater the ratio between current assets and current liabilities, the higher the company's ability to cover its short-term liabilities, but a high Current Ratio for a shareholder will be less profitable.

2.2 Debt to Equity Ratio (DER)

Debt Equity Ratio is a comparison of the ratio between the total debt and the company's own capital (Munawir, 2007:218). DER is a comparison between long-term debt and own capital (Syamsuddin, 2009:71). This ratio also serves to determine the amount of capital owned by the company to be used as collateral for its debts. This ratio also provides an overview of the company's financial feasibility and risks (Kasmir, 2019: 158). The maximum amount of debt owned by the company must be equal to its own capital or it can also be called the company's maximum DER of 100% (Sutrisno, 2007: 218).

2.3 Total Asset Turnover (TATO)

Total Asset Turnover, namely the ratio used to measure the effectiveness of company management in using its assets to generate income or profit as shown through Total Asset Turnover. Total Asset Turnover is the ratio used by companies to measure the turnover of assets owned by the company and measure the amount of sales obtained from each rupiah of assets (Kasmir, 2019: 185).

2.4 Return of Equity (ROE)

The calculation of Return on Equity will change if the company's profit increases or decreases. The higher the profit generated, the higher the calculation results obtained. The company's ability to generate profits with its own capital can be expressed through Return on Equity (Sutrisno, 2017: 213).

2. Research Method

3.1 Population and Sample

The population of this research is all manufacturing industries in the consumer goods sector which are listed on the Indonesia Stock Exchange in 2019-2021. Totaling 74 companies

The analysis method used in research is multiple regression analysis (multiple regression) multiple linear regression testing can be done by escaping classical assumptions. The conditions that must be met are that the data must be normally distributed, do not contain multicollinearity and heterokedacity.

Furthermore, this study used the normality test, namely the non-parametric Kolmogrov-Smirnov (K-S) statistical test. The K-S test is carried out using the hypothesis:

H0 : Residual data is normally distributed

H1 : Residual data is not normally distributed

Then the multicollinearity test can be seen from the tolerance value and the Variance Inflation Factor (VIF) value. So a low tolerance value is the same as a high VIF (because $VIF = 1/Tolerance$), the cut-off value that is commonly used to indicate the presence of multicollinearity is a tolerance value <0.10 or equal to $VIF > 10$ (Ghazali, 2016: 103).

The

Zero Decision	Hypothesis	If
There is no positive autocorrelation	reject	$0 < d < dl$
There is no positive autocorrelation	No decision	$dl \leq d \leq du$
There is no negative correlation	reject	$4 - dl < d < 4$
There is no negative correlation	No decision	$4 - du \leq d \leq 4 - dl$
There is no autocorrelation, positive or negative	No reject	$du < d < 4 - du$

autocorrelation test method that is often used is the Durbin-Watson test (DW test) with the following conditions (Ghazali, 2016: 107)

A good regression model is a homoscedasticity model or there is no heteroscedasticity. The way to detect the presence or absence of heteroscedasticity is by carrying out the Glejser test. The decision making hypothesis is:

H0: There are no symptoms of heteroscedasticity

Ha: There is a symptom of Heteroscedasticity if the significance level is > 0.05 then H_0 is accepted, whereas if the significance level is < 0.05 then H_0 is rejected.

Multiple Linear Analysis

This model is used to determine the effect of the independent variable on the dependent variable with the following equation:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where :

- Y = Return on Equity (ROE)
- a = Konstanta
- X_1 = Current Ratio (CR)
- X_2 = Debt to Equity Ratio (DER)
- X_3 = Total Asset Turnover (TATO)
- $\beta_{1,2,3}$ = Koefisien regresi variabel $X_{1,2,3}$
- e = Error

Hypothesis Testing

According to Ghozali, (2016: 98) this test was conducted to test whether each independent variable has a significant influence on the dependent variable. Test form:

The significance of decision making in this t-test are:

1. If the significance of $t < 0.05$, then H_0 is rejected and H_1 is accepted
2. If the significance of $t > 0.05$, then H_0 is accepted and H_1 is rejected

4. Results and Discussion

4.1 General Description of the Research Object

The Consumer Goods Industry sector, which is listed on the Indonesia Stock Exchange, is divided into several sub-sectors as follows:

1. Food and Beverage Sub Sector, is an industry that produces includes food and beverage products.
2. Tobacco Factory Sub-Sector, an industry that processes tobacco raw materials that can be made into cigarettes
3. Pharmaceutical Sub-Sector, namely business entities that have permission from the Minister of Health to carry out activities for manufacturing drugs or medicinal ingredients.
4. Cosmetics and household goods sub-sector, namely industries that process various kinds of beauty cosmetics and raw materials for household needs.
5. Household Appliances Sub Sector, is an industry that processes various household appliances such as irons, fans, televisions, etc.

4.2 Description of Research Results

The normality test in this study used the Kolmogorov-Smirnov test to determine whether the residuals were normally distributed or not.

4.2.1 Normality Test

**Table 4.2 Normality Test
 One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		108
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.31486425
	Absolute	.068

Most Extreme Differences	Positive	.068
	Negative	-.044
Kolmogorov-Smirnov Z		.703
Asymp. Sig. (2-tailed)		.707

Source: Processed by spss, (2023)

The basis for making a statistical test decision with Kolmogorov-Smirnov, that is, if the Asymp value. Sig (2-tailed) is more than 0.05, so the residual data is normally distributed (Ghozali, 2016: 154). The results of the analysis in table 4.2 using the normality test show that the data is normally distributed with the Asymp value. Sig 0.707 > 0.05.

4.3 Multicollinearity Test

Table 4.7 Multicollinearity Test Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	Sig.	Collinierarity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	.013	.059		.832		
CR	.086	.038	.220	.027	.834	1.199
DER	.208	.083	.227	.014	.971	1.030
TATO	.117	.080	.142	.147	.857	1.166

Source: Processed by spss, (2023)

Based on the results of table 4.7, it shows that the data does not have multicollinearity because the TOLERANCE value is > 0.1 and VIF < 10.

4.4 Autocorrelation Test

Table 4.8 Autocorrelation Test Model Summ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.360 ⁰	.162	.138	31937	1852

Source: Processed by spss, (2023)

The results of the autocorrelation test show that the data does not have autocorrelation because the DW value is 1.852 (1.7437 < 1.852 < 2.2563).

4.5 Heteroscedasticity Test

Tabel 4.9 Heteroskedastisitas Coefficients^a Test

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	.189	.037		5.170	.000
Current Ratio	.026	.024	.119	1.123	.264
Debt to Equity Ratio	.060	.051	.115	1.174	.243
Total Asset Turnover	-.055	.049	-.116	-1.118	.266

The results of the heteroscedasticity test show that the data does not occur heteroscedastically because all variables have sig values. >0.05.

4.6 Multiple Linear Regression Analysis

Table 4.10 Coefficients²

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.013	.059		.213	.832
Current Ratio	.086	.038	.220	2.237	.027
Debt to Equity Ratio	.208	.083	.227	2.494	.014
Total Asset Turnover	.117	.080	.142	1.461	.147

Based on multiple linear regression analysis, it shows that the coefficient of determination (r^2 square) = 0.162, meaning that the independent variables jointly affect the dependent variable by 16.2%, the remaining 83.8% is influenced by other variables not included in the research model.

From the regression equation: y above, it can be explained in the table. The regression equation is obtained as follows:

$$Y = 0.013 + 0.086X_1 + 0.208X_2 + 0.117X_3 + e$$

1. Value b_1 = Regression coefficient for CR

The value of the regression coefficient of the CR variable is +0.013 meaning that if the CR value increases, it will increase ROE.

2. Value b_2 = Regression coefficient for DER

The regression coefficient value of the DER variable is +0.086 meaning that if the DER value increases, it will increase ROE.

3. Value b_3 = Regression coefficient for TATO

The value of the TATO variable regression coefficient is +0.117, meaning that if the TATO value increases, it will increase ROE.

4.7 Hypothesis Testing

Table 4.12 T test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.013	.059		.213	.832
Current Ratio	.086	.038	.220	2.237	.027
Debt to Equity Ratio	.208	.083	.227	2.494	.014
Total Asset Turnover	.117	.080	.142	1.461	.147

Based on table 4.7 above it can be explained that:

1. The significant value of t is $0.027 < 0.05$, so it can be concluded that H_0 is rejected and H_1 is accepted, which means that the Current Ratio (X_1) has a significant effect on ROE (Y).
2. The significant value of t is $0.014 < 0.05$, so it can be concluded that H_0 is rejected and H_1 is accepted, which means that the Debt to Equity Ratio (X_2) has a significant effect on Return Of Equity (Y).
3. The significant value of t is $0.147 > 0.05$, so it can be concluded that H_0 is accepted and H_1 is rejected, which means that Total Asset Turnover (X_3) has no significant effect on Return Of Equity (Y).

4.8 Discussion

This study aims to see whether the current ratio, debt to equity ratio, total asset turnover partially have a significant effect on return of equity in the manufacturing industry in the consumer goods sector in 2019-2021

4.8.1 Effect of Current Ratio (CR) on Return on Equity (ROE)

The results of this study indicate that the Current Ratio variable has a positive and significant effect on Return of Equity. Positive results indicate that the increase in the value of the Current Ratio will decrease the Return of Equity. This is because if the Current Ratio is high, then the company is able to pay all of its short-term obligations to creditors. However, a high Current Ratio is also not always good because it shows that there are excess current assets that cannot be used effectively so that it can cause reduced profits or profitability, and result in a smaller Return of Equity (Kasmir, 2019: 119).

This significant result indicates that the Current Ratio variable is capable of being a factor influencing the Return of Equity variable. The results of the study are in line with those carried out by Emi Lestari (2022) which explains that the Current Ratio variable has a positive and significant effect on the Return of Equity variable.

4.8.2 Effect of Debt to Equity Ratio (DER) on Return on Equity (ROE)

The results of this study indicate that the Debt to Equity Ratio variable has a positive and significant effect on Return of Equity. This significant result indicates that the Debt to Equity Ratio variable can be a factor that influences the Return of Equity variable, so the company's condition is included in the healthy category. The reason is, if the company experiences default, then the company's equity is proven capable of paying these debts. As an investor, you still have the opportunity to get the proceeds from the sale of equity from the remaining debt payments made. The results of this study are not in line with those conducted by Maya Sari (2019) which explains that the Debt to Equity Ratio variable has no positive and significant effect on the Return of Equity variable.

4.8.3 Effect of Total Asset Turnover (TATO) on Return on Equity (ROE)

The results of this study indicate that the Total Assets Turnover variable has no significant effect on Return of Equity. Positive results indicate that the higher the value of Total Asset Turnover, the lower the Return of Equity. This is due to the higher the turnover rate of a company's assets, the more effective the company is in managing its assets and the better the level of efficiency in using assets in sales. Increased asset turnover will be able to affect the increase in sales volume to obtain the maximum possible profit so that the faster the asset turnover rate and the faster the increase in profit generated (Sawir, 2018; 78). However, the company's profit can decrease due to the large costs incurred when making sales.

This insignificant result indicates that the Total Assets Turnover variable cannot be a factor that influences the Return of Equity variable. Because based on the data for calculating Total Asset Turnover during the 2019-2021 period, consumer goods companies have decreased, while calculating Return of Equity data has fluctuated. In addition, creditors and investors in reality do not only use Total Asset Turnover in making investment decisions, they do not take into account the good and bad of the company in operational activities to earn income. The results of this study are in line with the results of research conducted by Christian Sundari (2021) which explains that the Total Assets Turnover variable has no positive and significant effect on the Return of Equity variable.

5. Conclusion and Recommendation

5.1 Conclusion

Based on the results of research on the Effect of Current Ratio, Debt to Equity Ratio, Total Asset Turnover, on Return Of Equity in manufacturing companies in the Consumer Goods Sector in 2019-2021, it can be concluded: The Current Ratio has a positive and significant effect on Return of Equity in the manufacturing industry in the Consumer Goods Sector in 2019-2021.

1. The Debt to Equity Ratio has a positive and significant effect on Return of Equity in the manufacturing industry in the Consumer Goods Sector in 2019-2021.
2. Total Asset Turnover has a positive and insignificant effect on Return of Equity in the manufacturing industry in the Consumer Goods Sector in 2019-2021.

5.2 Recommendation

In this study there are suggestions put forward by researchers, while the suggestions are as follows :

1. Companies should pay attention to debt and sales because these two things affect the level of profitability, investors will be more interested in companies that have good and stable financial conditions.
2. This research concluded that the current ratio, debt to equity ratio, has a significant positive effect on return of equity, so it is suggested to further researchers to be able to use these two variables as a reference and develop this research in a better direction. In the future it is hoped that future researchers will be able to take other variables to assess company performance such as return on assets, times interest eard ratio, and so on.

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