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The Influence of Sales Growth, Company Size and Working Capital Turnover on Company Profitability at PT. Chemical Farma of Indonesia

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Abstract:

This study aims to examine the effect of sales growth, company size and working capital turnover on company profitability at PT.Kimia Farma during the 2010-2019 period. This study uses secondary data in the form of time series (time series) which is accessed through the website www.kimiafarma.co.id and in www.idx.co.id. Data analysis methods that used in this study by using the stationarity test and the autoregressive distributed lag (ARDL) analysis model. The variables used in this study are independent variables, namely sales growth, company size and working capital turnover. While the dependent variable is the company's profitability (ROA). The results of the study partially found that sales growth had a negative and not significant effect on company profitability, company size had a negative and insignificant effect on company profitability and working capital turnover had a negative and negative effect not significant to the company's profitability. Simultaneously, the three variables, namely sales growth, company size, and working capital turnover have a negative and insignificant effect on company profitability.

Keywords: Profitability, sales growth, company size and working capital turnover

1. Introduction

Kimia Farma is the first pharmaceutical industry company in Indonesia which was founded by the Dutch East Indies government in 1817. The name of this company was originally NV Chemicalien Handle Rathkamp & Co. Based on the nationalization policy of former Dutch companies in the early days of independence, in 1958 the Indonesian government merged a number of pharmaceutical companies into the state pharmaceutical company (PNF) Bhineka Kimia Farma. On August 16, 1971, the legal entity form of PNF was changed to a limited liability company. Thus the name of the company changed to PT.Kimia Farma.

On July 4, 2001 PT.Kimia Farma (Persero) again changed its status to a public company under the name PT.Kimia Farma (Persero) Tbk and in writing hereinafter referred to as the company. Along with these changes, the company has been listed on the Jakarta Stock Exchange and Surabaya Stock Exchange. And now the two exchanges have merged and are now named the Indonesia Stock Exchange. With ten years of experience, the company has developed into a company with integrated health services in Indonesia.

The company is a form of organization that generally has certain goals to be achieved in an effort to meet the interests of stakeholders. The purpose of the company is to achieve profit (profit). And the success of a company in achieving its goals can be seen from the growth and performance of the company. Company performance can be

measured in a variety of different ways and also by applying various methods. The method generally used is the profitability ratio (Niresh and Velnampy, 2014).

According to (Riyanto, 2011) the profitability of a company shows a comparison between profits and assets or capital that generates these profits, in other words profitability is the company's ability to generate profits over a certain period of time. Profitability in this study is proxied by return on assets (ROA).

In the study, the factors that influence the company's profitability are sales growth, company size, and working capital turnover.

One of the ratios used to assess the good or bad financial performance of a company is profitability. Profitability is the end result of a number of company management policies and decisions, so company profitability is the company's ability to generate net income from assets carried out in the accounting period (Brigham & Houston, 2016).

Profitability is the ability of a business entity to use its funds to earn a profit (Munawir, 2014). Profitability according to Kasmir (2012) is a ratio to assess the company's ability to seek profit. On the other hand, Riyanto (2013) suggests that profitability is the company's ability to generate profits during a certain period.

According to Munawir (2010) profitability is the company's ability to obtain profits related to total assets, sales, and own capital.

According to Sartono (2012) Return on assets is one of the profitability ratios, namely the ratio that shows how effectively the company operates so as to generate profits or profits for the company.

$$ROA = \frac{\text{profit after tax}}{\text{total assets}} \times 100\%$$

Sales growth ratio is a ratio that shows the percentage increase in sales this year compared to last year. The greater this ratio indicates the higher the level of sales made by the company, the better, because it shows the company is able to achieve the expected sales targets and the income is even greater (Meidyustiani, 2016).

According to (Chotimah and Susilowibowo, 2014) sales growth is an important indicator of market acceptance of a company's products/services, where the income generated from sales can be used to measure the level of sales growth. The increase in the number of sales from year to year or from time to time (Kennedy et al, 2013).

From the description above, it can be concluded that sales growth is an increase in the number of sales from year to year or from time to time. High sales growth, it will reflect the company's income which also increases.

As in the research conducted by Rifai & Magdalena (2012) with the formula:

$$\text{Sales growth} = \frac{\text{Sale}_t - \text{Sale}_{t-1}}{\text{Sale}_{t-1}}$$

The size of the company is seen from the amount of equity value, company value, or the total asset value of a company (Riyanto, 2011). Company size can play an important role in today's world economy. This is seen in determining the company's relationship with the environment outside the company, for example the growth of multinational companies in today's economy, reflects the importance of company size in the business environment (Abiodun, 2013).

Company size affects the company's ability to obtain additional external capital to finance the company's operational costs. Company size describes the size of a company (Sartono, 2010). Larger companies will find it easier to get large amounts of funds so that it will help the company's operational activities and cause the company's productivity to increase so that the company's profitability will also increase (Putra & Badjra, 2015).

Company size is the number and variety of production capacity and capabilities owned by the company or the number and variety of services that the company can provide simultaneously to its customers (Niresh & Velnampy, 2014).

From some of the definitions above, it can be concluded that company size is a measure that shows the size of the company seen from a number of provisions such as the total amount of capital, income, sales, market value, and so on.

According to Sartono (2012) the formula for firm size is:

$$\text{Company size} = \text{LN Total assets}$$

Every company always needs working capital to finance its operational activities, both in companies engaged in services and industry. Working capital turnover (WCT) is a ratio used to measure the effectiveness of the company's working capital during a certain period. In a sense, how much working capital rotates during the period.

According to Kasmir (2012) working capital turnover is one of the ratios used to measure or assess the effectiveness of the company's working capital during a certain period.

According to Gitman and Zutter (2012), working capital is the amount of current assets that are part of investing that circulates from one form to another in a business activity. Funds as working capital are funds used to finance the company's operational activities, especially those with a short period of time.

According to Kasmir (2012) working capital turnover is one of the ratios used to measure or assess the effectiveness of the company's working capital during a certain period.

The formula for measuring working capital turnover according to Kasmir (2012) is as follows:

$$\text{Working capital turnover} = \frac{\text{Net sales}}{\text{Working capital}}$$

The company will not run without a good sales system. Sales is the spearhead of a company. The right sales forecast is needed, so the company can prepare everything needed for the production process. So that sales growth has an effect on profitability. This statement is supported by research by Rahmawati & Mahfudz (2018), and Sukadania & Triaryati (2018) which show that sales growth has a positive and significant effect on company profitability.

1.1. Conceptual Framework

The conceptual framework is to describe the relationship between the independent variables and the dependent variable. Based on the research objectives, literature review, and the results of previous studies, the conceptual framework can be seen in Figure 2.1

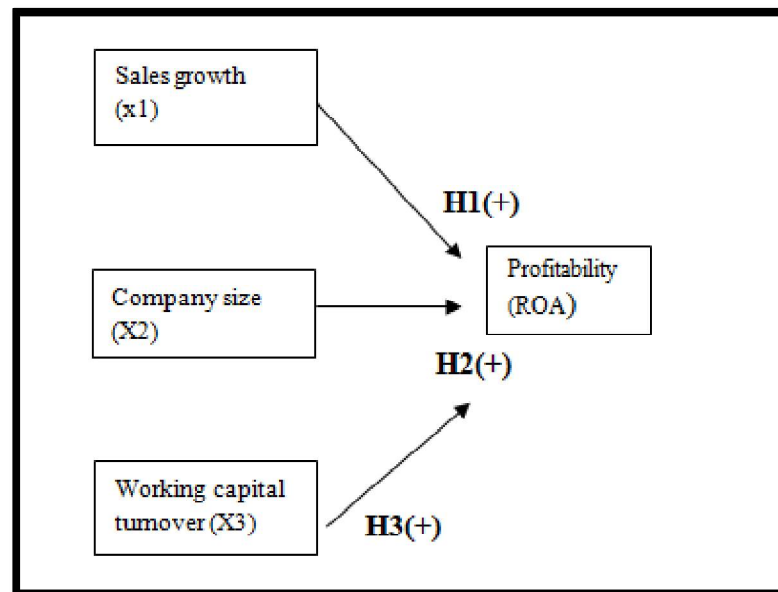


Figure 1: Conceptual Framework

2. Method

In this study, the object of research is the effect of sales growth, company size and working capital turnover on company profitability at PT. Kimia Farma in Indonesia in the 2010-2019 period. The research location is the PT. Kimia Farma company in Indonesia by accessing the official website, namely: www.kimiafarma.co.id and www.idx.co.id. In this study, time series data is used as the type of data. The data collection technique was carried out by the documentation method, obtained by quoting directly from the annual published financial statements of the company www.kimiafarma.co.id and www.idx.co.id for 10 consecutive years, namely from 2010-2019. The analytical method in this study uses time series analysis with the help of eviews 9.

$$\ln ROA_t = \alpha + \beta_1 \ln PP_t + \beta_2 \ln UP_t + \beta_3 \ln PMK_t + e_t$$

Where:

ROA = Return On Assets

PP = Sales Growth

UP = Company Size

PMK = Working Capital Turnover

= constant

= Regression Coefficient

e = Interrupt Error (error)

t = 1,2.....,(time series)

2.1. Classic Assumption Test Results

The stages of the test results in the classical assumption test are as follows:

2.2. Normality Test Results

The normality test aims to test whether in the regression the confounding or residual variables have a normal distribution. There are two ways to detect whether the residuals are normally distributed or not, namely by graphical analysis and statistical tests (Ghozali, 2011). The normality test can be done by looking at the profitability value on the normality graph. In this study, the normality test was carried out with the test *Jarque Bera* (JB).

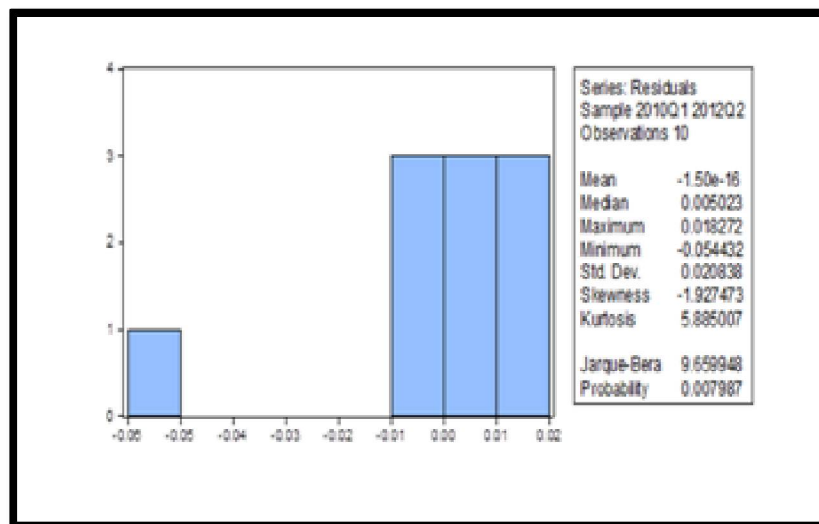


Figure 2: Jarque Bera(JB) Test

Based on Figure 2 above, it can be seen that the profitability value is 0.007987. Meanwhile, the Jarque Bare value in this study was 9.659948. Because the profitability value of $p < 0.05$, it can be concluded that in this normality study the data are not normally distributed.

2.3. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. If the residual variance from one observation to another observation remains, it is called homoscedasticity and if the variance is different it is called heteroscedasticity.

A good regression model is a model that does not occur heteroscedasticity symptoms. The results of the heteroscedasticity test in this study used Breusch-Pagan-Godfrey.

F-statistics	0.3655684	Prob. F(3,6)	0.7807
Obs*R-squared	1.545786	Prob. Chi-Square (3)	0.6717
Scaled explained SS	1.3599212	Prob. Chi-Square (3)	0.7151

Table 1: Heteroscedasticity Test

Based on table 1.1, it is known that the Prob Obs*R-Square value is $0.67 > 0.05$, which means that in this study there was no heteroscedasticity.

2.4. Multicollinearity Test

The multicollinearity test is one of the tests in the classical assumption that aims to see whether or not there is a correlation between the independent variables. Ghozali (2011) Multicollinearity test aims to test whether the regression model found a correlation between independent variables (independent). A good regression model should not have a correlation between the dependent variables. Ghozali (2011) says that if there is a fairly high correlation between independent variables (generally above 0.95), then this result is an indication of multicollinearity.

	Growth	F_Size	Pmk
Growth	1.0000		
F_Size	0.9967	1.0000	
Pmk	-0.7371	-0.7011	1.0000

Table 2: Multicollinearity Test

Based on Table 2 shows that there is a correlation value of 0.9967 in the independent variable F_Size, it can be concluded that there is multicollinearity between the F_Size variable and ROA.

2.5. Autocorrelation Test

The autocorrelation test aims to test whether in a linear model there is a correlation between the nuisance error in period t and the error in period $t-1$. If there is a correlation, it is called an autocorrelation problem. Autocorrelation arises because successive observations over time are related to each other. This problem arises because the residuals are not independent from one observation to another (Ghozali, 2011). The autocorrelation test can be seen from the Durbin-Watson (DW) value in the fixed effect model in this study. The value of Durbin Watson in this study is 1.398556.

Durbin Watson stat	1.398556
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Table 3: Autocorrelation Test Results

Based on Table 3 above, it can be concluded that the DW value is between -2 to +2, so it can be concluded that there is no autocorrelation problem in this study.

2.6. Stationarity Test

Variable	ADF Statistics	Critical Value			Probability
		1%	5%	10%	
Roa	2.0545	-4.4205	-3.2598	-2.7711	0.9980
Growth	3.5838	-4.4205	-3.2598	-2.7711	0.9999
F_Size	7.6073	-4.4205	-3.2598	-2.7711	1.0000
F_Size	7.6073	-4.4205	-3.2598	-2.7711	1.0000
Pmk	-0.6008	-4.4205	-3.2598	-2.7711	0.8235

Table 4: ADF Unit Root Test Level

Variable	ADF Statistics	Critical Value			Probability
		1%	5%	10%	
Roa	-3.4104	-5.1198	-3.5195	-2.8984	-0.0563
Growth	-2.2112	-5.1198	-3.5195	-2.8984	-0.2191
F_Size	-1.6605	-4.8034	-3.4033	-2.8418	0.4070
Pmk	0.0385	-4.8034	-3.4033	-2.8418	0.9305

Table 5: Unit Root Test Second Difference . Level

Based on the stationarity test above, it can be seen that based on the unit root test with the ADF, both the unit root test at the level and the second difference level, most of the four variables in this study were not stationary. In the second difference level unit root test, there are two stationary variables, namely the Roa and Growth variables.

2.7. ARDL Long-Term Coefficient

Long-term coefficients can be obtained based on the parameters of the ARDL model estimation results (1, 1, 0, 0) which were selected as the best model. The results of the long-term coefficient can be seen in table 1.6:

Variable	Coefficient	Std. Error	t-Stats	Prob
Growth	-0.0000	0.0000	-2.0146	0.1374
F_Size	0.2318	0.1320	1.7555	0.1774
PMK	-0.0000	0.0000	-0.8086	0.4779
C	-2.8183	1.6921	-1.6655	0.1944
Growth	-0.0000	0.0000	-2.0146	0.1374
F_Size	0.2318	0.1320	1.7555	0.1774
PMK	-0.0000	0.0000	-0.8086	0.4779
C	-2.8183	1.6921	-1.6655	0.1944
Statistical test	Value	Significant.	I(0)	I(1)
F-statistics	4.0699	10%	Asymptotic: N=1000 2.72	3.71
K	3	5% 2.5% 1%	3.23 3.69 4.29	4.35 4.89 5.61

Table 6: Long-Term ARDL Estimation Results

Source: Data processed, 2021

Based on Table 6 above, the long-term equation for ARDL results is mathematically as follows:
 $\ln ROA_t = -2.8183 + (-0.000 * \ln Growth_t + 0.2318 * \ln F_Size_t + -0.000 * \ln PMK_t + \epsilon_t$

The estimation results above show that the constant value is -2.8183, this indicates that if all the independent variables in this study consisting of growth, F_size, and PMK are 0 then ROA will remain constant with a value of -2.8183.

Variable	Coefficient	Std.Error	t-Stats	Prob
D(Growth)	-0.0000	0.0000	-2.6383	0.0778
D(F_Size)	0.1846	0.0838	2.1952	0.1157
D(Pmk)	-0.0000	0.0000	-0.8602	0.4529
Cointeq(-1)	-0.7939	0.1771	-4.4810	0.0207

Table 7: ECM Regression
Source: Data Processed, 2021

In table 1.7 it can be seen that the value of CointEq(-1) = -0.7939 and is significant at the 5% level, which means that there is a short-term cointegration in this model. The CointEq coefficient will then be used to measure the speed of adjustment which is the speed of adjustment in response to changes. CointEq value is valid if the coefficient is negative with a significant probability of less than the 5% level.

2.8. Stability Test

Stability test is used to determine the stability of the cointegration relationship between variables. The stability test used is the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of square recursive residuals (CUSUMQ). If the CUSUM and CUSUMQ lines are within the critical limit of 5%, the cointegration result is significantly stable. Here are the results of the stability test

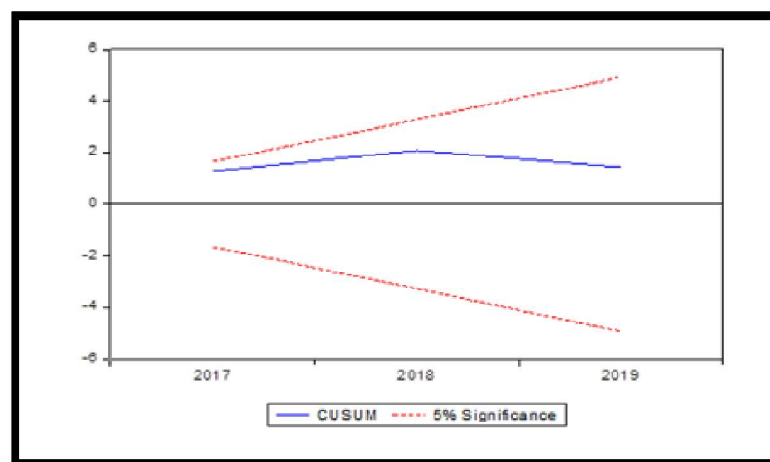


Figure 3: Cumulative Recursive Residual Sum (CUSUM)
Source: Data processed, 2021

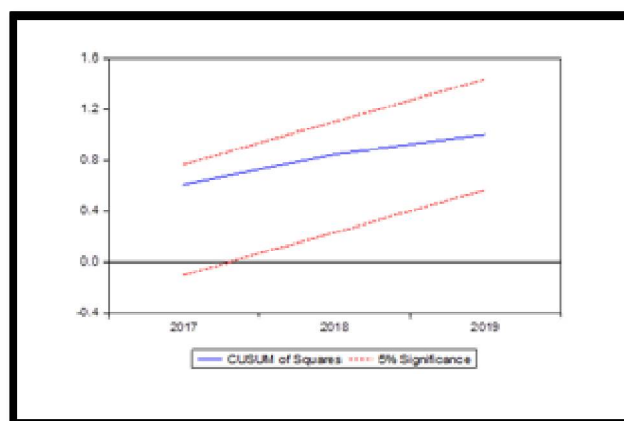


Figure 4: Square Recursive Residual (CUSUMQ)
Source: Data Processed, 2021

Based on Figures 1.3 and 1.4, it can be seen that the cointegration results are significantly stable, because CUSUM and CUSUMQ are within the critical limit of 5%.

3. Discussion

3.1. Partial Test (Test - t)

3.1.1. The Effect of Sales Growth (Growth) on Profitability (ROA)

Based on the results of time series data analysis with Autoregressive Distributed Lag, it can be seen that sales growth (growth) has a coefficient value of -0.0000 with a tcount value of -2.0146 with a probability value of 0.1374.

Therefore, $t_{count} - 2.0146 < t_{table} 2.4469$ and probability value $0.1374 > 0.05$, which means that sales growth has a negative and insignificant effect on company profitability at PT. Pharmaceutical Chemistry. The results of this study are in line with the results of research conducted by Putra (2015) which found that sales growth (growth) had no relationship with the level of profitability.

3.1.2. The Effect of Firm Size (Growth) on Company Profitability (ROA)

Based on the results of time series data analysis with Autoregressive Distributed Lag, it can be seen that the size of the company has a coefficient value of 0.2318 with a t_{count} of 1.7556 and a probability of 0.1774. Therefore, $t_{count} 1.7556 < t_{table} 2.4469$ and probability value $0.1774 > 0.05$, which means that company size has a negative and insignificant effect on PT. Kimia Farma. The results of this study are in line with the findings of Putra, et al (2015), meidiyustiani (2016), and Puspita, et al (2018) who found that company size had a negative and insignificant effect on profitability.

3.1.3. Effect of Working Capital Turnover on Profitability (ROA)

Based on the results of time series data analysis with Autoregressive Distributed Lag, it appears that working capital turnover has a coefficient value of -0.0000 with a t_{count} of -0.8086 with a probability value of 0.4779. Therefore, $t_{count} -0.8086 < t_{table} 2.4469$ and a probability value of $0.4779 > 0.05$, which means that working capital turnover has a negative and insignificant effect on the company's profitability at PT. Kimia Farma. The results of this study are supported by research conducted by Chotimah, et al (2014), and Iskandar, et al (2014) which found that working capital turnover had no effect on profitability (ROA).

3.2. Simultaneous Test (F Test)

Sales growth, company size, and working capital turnover have F_{count} of 1.0319 with a probability value of 0.4429 and F_{table} of 4.74. Therefore, $F_{count} 1.0319 < F_{table} 4.74$ and probability value $0.4429 > 0.05$ which means sales growth (Growth), company size, and working capital turnover have a negative and insignificant effect on company profitability at PT. Kimia Farma.

4. Conclusions and Suggestions

4.1. Conclusion

Based on the results of data analysis in testing the effect of sales growth, company size, and working capital turnover partially at PT. Kimia Farma in Indonesia for the 2010-2019 period, it can be concluded that sales growth, company size, and working capital turnover have a negative and insignificant effect.

Meanwhile, simultaneously, the independent variables, namely sales growth, company size, and working capital turnover have a negative and insignificant effect on profitability (ROA) at PT. Kimia Farma in Indonesia.

4.2. Suggestion

Based on the results of the research that has been researched, the suggestions that can be given to several parties are as follows:

- It is suggested to the company that it should be considered to utilize and manage the resources it has and can increase its growth properly so that investors believe in investing in the company.
- It is recommended to the management of the company to be able to optimize the company's assets so that the company can run well.

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