

The Effect of Current Ratio and Debt to Asset Ratio on Net Profit Margin at PT. Polychem Indonesia Tbk. Period 2013-2022

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Abstract

Penelitian ini bertujuan untuk mengetahui pengaruh Current Ratio dan Debt to Asset Ratio terhadap Net Profit Margin pada PT. Polychem Indonesia Tbk. Periode 2013-2022. Metode penelitian yang digunakan adalah penelitian kuantitatif yang bersumber dari data laporan keuangan PT. Polychem Indonesia Tbk. Periode 2013-2022. Analisis statistik yang digunakan meliputi: statistik deskriptif, asumsi klasik, regresi linear, koefisien korelasi, koefisien determinasi dan pengujian hipotesis yang digunakan adalah statistik uji t dan uji F. Hasil pengujian ini menunjukkan Current Ratio secara parsial memiliki nilai signifikansi sebesar $0,777 > 0,05$ dan nilai thitung $-0,294 < \text{nilai ttabel } 2,364$. Artinya tidak terdapat pengaruh signifikan Current Ratio terhadap Pertumbuhan Laba. Debt to Asset Ratio secara parsial memiliki nilai signifikansi $0,079 < 0,05$ dan nilai thitung $-2,054 < \text{nilai ttabel } 2,364$. Artinya tidak terdapat pengaruh signifikan Debt to Asset Ratio terhadap Net Profit Margin. Current Ratio dan Debt to Asset Ratio secara simultan $0,127 < 0,05$ dan nilai dan nilai Fhitung $2,807 < \text{nilai Ftabel } 4,740$. Artinya tidak terdapat pengaruh signifikan antara Current Ratio dan Debt to Asset Ratio terhadap Net Profit Margin

Abstract

This study aims to determine the effect of Current Ratio and Debt to Asset Ratio on Net Profit Margin at PT. Polychem Indonesia Tbk. Period 2013-2022. The research method used is quantitative research sourced from financial statement data of PT. Polychem Indonesia Tbk. Period 2013-2022. The statistical analysis used includes: descriptive statistics, classical assumptions, linear regression, correlation coefficient, coefficient of determination and hypothesis testing used are t test statistics and F test. The results of this test show that the Current Ratio partially has a significance value of $0.777 > 0.05$ and a calculated value of $-0.294 < \text{a ttable value of } 2.364$. This means that there is no significant effect of Current Ratio on Profit Growth. Debt to Asset Ratio partially has a significance value of $0.079 < 0.05$ and a calculated value of $-2.054 < \text{a table value of } 2.364$. This means that there is no significant effect of Debt to Asset Ratio on Net Profit Margin. Current Ratio and Debt to Asset Ratio simultaneously $0.127 < 0.05$ and Fcalculate value and value $2.807 < \text{Ftable value } 4.740$. This means that there is no significant influence between the Current Ratio and Debt to Asset Ratio on Net Profit Margin.

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INTRODUCTION

In the competition of the business world, both the industrial and service sectors are getting tighter, so that the growth of companies in Indonesia in terms of quality and quantity is quite high when looking at the development. There are companies that become public companies where the shares used to be only owned by certain shareholders. Indonesia as one of the developing countries is characterized by development in all fields of the business economy. So that the more economic activities develop, the growth of a company will increase.

Analysis of short-term financial statements in a company is very important for both management and related external parties, such as banks, lenders and creditors will assess the prospects for short-term loans that will be provided by a financially sound company must be able to pay short-term debts on time. The amount of available working capital must be used by management properly and efficiently. That's why financial reports are indispensable in a company. By analyzing the company's financial statements, it can find out how much profit is generated and how much the company is able to pay its short-term debts

PT Polychem Indonesia Tbk is engaged in the manufacture of polyester chips, polyester filaments, engineering plastics, engineering resins, ethylene glycol, polyester staple fibers and petrochemicals and to be involved in the manufacture of knitting, weaving and textiles. The company began its commercial operations in 1990.

The intensity of competition and price wars between industries has made the company redefine its vision and mission: Providing quality products and the best service for customers and providing optimal benefits for stakeholders.

Table 1. Financial Statements of PT. Polychem Indonesia Tbk Period 2013-2022

Year	Current Ratio	Debt to asset Ratio	Net Profit Margin (NPM)
2013	262%	24%	-54%
2014	295%	14%	-5%
2015	381%	13%	-7%
2016	206%	20%	-11%
2017	222%	21%	-3%
2018	472%	13%	0%
2019	367%	19%	-8%
2020	356%	19%	-25%
2021	335%	16%	0%
2022	372%	16%	-19%
Average	327%	17%	-13%

Source: Data processed

Based on the data presented in the table above, it can be seen that PT. Polychem Indonesia Tbk. faces yearly fluctuations in *Current Ratio*, *Debt to Asset Ratio* and *Net Profit Margin*, with each metric indicating an upward or downward trend. The average *Current Ratio* peaked in 2018 at 472% and fell to a low point in 2016 at 206%. In this case, *the average Debt to Asset Ratio* peaked in 2013 at 24% and reached a low point in 2015 at 13%. Similarly, in terms of *Net Profit Margin* the highest average in 2021 at 0% and decreased by a significant margin of -54% in 2013 for PT. Polychem Indonesia Tbk. Based on the figures listed in the table and graph above, PT. Polychem Indonesia Tbk. has seen annual fluctuations in the current ratio, *Net Profit Margin* and Profit Growth.

The measure of a company's success is efficiency in managing its assets into Profit. According to Hery (2018:192) said that the profitability ratio is a way to see how well a company generates profits from its daily operations. The profitability ratio measures a company's efficiency in converting capital, assets, and sales into profits. The profitability ratio used in this study is *Net Profit Margin* (NPM), this ratio is explained as the level of efficiency of the company which measures the ability of the business to reduce costs in the company. The increase in revenue was possible due to the improvement in the net profit margin ratio which showed that operating income was smaller than net income income.

Companies that have good performance do not have to pay attention to only the management of their assets, but also the level of liquidity to support good performance. According to Fahmi (2017:121), the liquidity ratio is the speed at which a company can complete its short-term loans. It is likely that current liabilities will be fulfilled if current assets are greater than current liabilities. *The Current Ratio* (CR), which allows companies to measure their liquidity or ability to satisfy short-term obligations without experiencing difficulties, is the liquidity ratio used in this study.

Profit growth is a top priority for a company because it serves as a measure of a company's performance. If a company's revenue increases compared to the previous year, then it is considered profit growth. Any increase in economic income during an accounting period, whether from an increase in income, new assets, or a reduction in liabilities, is called profit. Companies that consistently increase their profits and have strong financial performance are likely to experience an increase in value over time. One possible interpretation is that it shows how well the company handles its resources, which in turn indicates how well it is performing financially.

Literature Review

Current Ratio

According to Harahap (2016:301) explained that "*The Current Ratio* is used to show the extent to which current assets cover current liabilities. The greater the ratio of current assets to current liabilities, the higher the company's ability to cover its short-term liabilities". Meanwhile, according to Atmaja (2018:165) explained that "*Current Ratio* is a financial ratio used to determine the liquidity of a company. This ratio is calculated by dividing current assets by current liabilities. A low *Current Ratio* indicates that the company's liquidity is poor. On the other hand, if the current ratio is relatively high, the company's liquidity is relatively good. Although current assets are greater than current liabilities, keep in mind that items of assets such as inventories and receivables can sometimes be difficult to bill or sell quickly." It can be concluded that *the Current Ratio*

shows the extent to which current assets cover current liabilities. The greater the ratio of current assets to current liabilities, the higher the company's ability to cover its short-term liabilities.

Debt to Asset Ratio

This ratio is a comparison between current debt and long-term debt and the amount of all assets known. This ratio shows how much of the total assets are spent by debt. According to Kasmir (2019:157), the industry average for *Total Debt to Total Asset Ratio* is 35%.

Net Profit Margin

According to Hery (2018:94), *Net Profit Margin* (NPM) is a ratio used to measure the percentage of net profit on net sales. This ratio is calculated by dividing net profit to net sales. Meanwhile, according to Kasmir (2017:200), *Net Profit Margin* (NPM) is a measure of profit by comparing profit after interest and tax compared to sales. *Net Profit Margin* is defined as the level of efficiency of the company, namely the extent of the company's ability to emphasize the costs in the company, namely the extent of the company's ability to emphasize the costs in the company. The higher the *Net Profit Margin*, the better a company will operate. *Net Profit Margin* is used for net income earned from sales proceeds. The higher the profit obtained, the higher the NPM ratio value will be and will have a good effect on profit growth. On the other hand, if the profit obtained is lower, it will reduce the value of the NPM ratio and will also affect profit growth.

METHOD

The type of research used in this study is quantitative, because this study uses numbers in financial statements as data. According to Sugiyono (2019:8) argues that "quantitative research is a research method based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, quantitative or statistical data analysis, with the aim of testing predetermined hypotheses". The population in this study is the financial statements of PT. Polychem Indonesia Tbk. In this study, the samples used are the balance sheet and profit and loss statements at PT. Polychem Indonesia Tbk. from 2013-2022. In this study, the dependent variable used is *Net Profit Margin* while the independent variable used is *Current Ratio* and *Debt to Asset Ratio*.

The data collection method in this study uses the documentation method or collects data in the form of financial statement documents of PT. Polychem Indonesia from 2013-2022. The data analysis method in this study was carried out by Multiple Linear Regression Analysis.

RESULTS AND DISCUSSION

Classical Assumption Test

Normality Test

**Table 3 Results of the Normality Test
One-Sample Kolmogorov-Smirnov Test**

		X1	X2	Y
N		10	10	10
Normal Parameters ^{a,b}	Mean	313.50	17.50	-12.40
	Std. Deviation	73.030	3.689	16.304
Most Extreme Differences	Absolute	.180	.158	.334
	Positive	.180	.158	.223
	Negative	-.112	-.158	-.334
Test Statistic		.180	.158	.334
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.200 ^{c,d}	.002 ^c

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 version 25 output

In the normality test using the *Kolmogorov-smirnov one-sample*, a data is said to be normally distributed if the asymp. Sig. (2-tailed) in the test output of the data shows a > value of 0.05 and the results of the data processing of this study show a value of 0.200, so this study is said to be normally distributed.

Multicollinearity Test

**Table 4 Multicollinearity Test Results
Coefficients^a**

Type	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	59.818	44.729		1.337	0.223		
1 Cr	-0.036	0.075	-0.162	-0.481	0.645	0.637	1.569
Dar	-3.477	1.492	-0.787	-2.331	0.053	0.637	1.569

a. Dependent Variable: npm

Source : Data processed by spss 25

Based on the table above, the results of the calculation of the *tolerance* value show that there are no independent variables that have a *tolerance* value of more than 0.10, namely 0.637 for the *current ratio* variable and 0.637 for the *Debt to Asset ratio* variable. The results of the VIF calculation also show the same thing, namely that there is no single independent variable that has a VIF value of > 10, which is 1.569 for variables. *Current Ratio* and 1.569 for the variable *debt to Asset ratio*. So it can be concluded that there is no symptom of multicollinearity between independent variables in the regression model.

Autocorrelation Test

Table 5 Autocorrelation Test Results Model Summary^b

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.701a	.492	.346	13.182	1.379

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

From the table above that Durbin-Watson of the regression model is Durbin Watson = 1.379 This value will be compared to the DW table with the number of data (n) = 10, the number of independent variables (k) = 2 with a significance rate of 5% or 0.05 with a lower limit (dL) of 0.6972, When described in the rules of Autocorrelation testing, the result is $dL < d < du$, namely. $0.6972 < 1.379 < 1.613$ Which means that there is no certainty of autocorrelation or cannot be concluded.

If the results of the Durbin-Watson test cannot be concluded, then the run test is continued. Run test is part of non-parametric statistics. So the output results of the SPSS version 25 run test can be seen as follows:

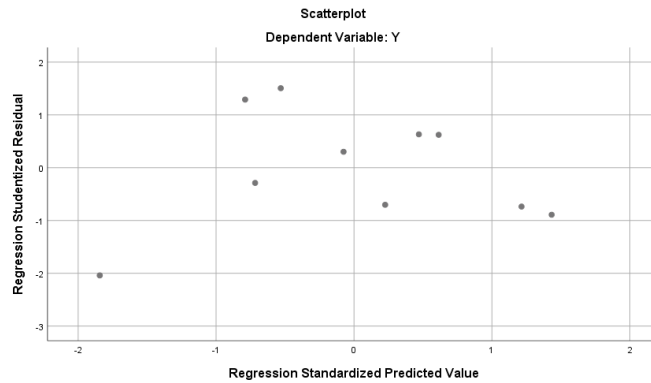
Table 6. Autocorrelation Test Results with Run Test

Runs test	
	Unstandardized Residual
Test Value ^a	-0.56697
Cases < Test Value	5
Cases >= Test Value	5
Total Cases	10
Number of Runs	5
Z	-0.335
Asymp. Sig. (2-tailed)	0.737

a. Median

From the results of the run test, it can be seen that the value of asymp.sig. (2-tailed) is 0.737. $0.737 > 0.05$ this proves that there is no autocorrelation problem in the regression model.

Heteroscedasticity Test



Graph 1. Heteroscedasticity Test Results

Based on the figure above, the dot spreads above and below the number 0 and on the Y axis and does not form a specific clear pattern. So it can be concluded that this regression test does not have heteroscedasticity.

Multiple Linear Regression

Table 7 Multiple Linear Regression Test Results Coefficients^a

Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	84.461	47.99		1.76	0.122
1 X1	-0.078	0.073	-0.385	-1.067	0.322
X2	-4.125	1.609	-0.927	-2.564	0.037

a. Dependent Variable: Y

Source : Data processed by spss 25

From the table above, the multiple regression test is obtained, the multiple linear regression equation $Y = 84.461 - 0.078 X_1 - 4.125 X_2$. From the results of the multiple regression equation, each variable can be interpreted as follows:

1. The constant value (α) of 84.461 states that if the variables *Current Ratio* and *Debt to Asset Ratio* are not present, then the *Net Profit Margin* variable is 84.461.
2. The regression coefficient of the *Current Ratio* variable (X_1) is -0.078 and is marked negative. This means that any unit change in the *Current Ratio* will decrease the *Net Profit Margin* value by 0.078 in the opposite direction. The value of the negative coefficient shows that the *Current Ratio* has a negative effect on the *Net Profit Margin*, the lower the *Current Ratio* the lower the net profit margin.
3. The regression coefficient of the *Debt to Asset Ratio* (X_2) variable is -4.125 and is marked negative. This means that every 1 unit change in the *Debt to Asset Ratio* will decrease the *Net Profit Margin* value by 4.125 in the opposite direction.

The value of the negative coefficient shows that the *Debt to Asset Ratio* has a negative effect on the *Net Profit Margin*. The higher the value of the *Debt to Asset Ratio*, the lower the *Net Profit Margin*.

Correlation Coefficient Test

Table 8 Correlation Coefficient Test Results

Correlations				
		CR	DAR	NPM
Cr	Pearson Correlation	1	-.602	.333
	Sig. (2-tailed)		.065	.348
	N	10	10	10
Dar	Pearson Correlation	-.602	T1	-.662*
	Sig. (2-tailed)	.065		.037
	N	10	10	10
npm	Pearson Correlation	.333	-.662*	1
	Sig. (2-tailed)	.348	.037	
	N	10	10	10



*. Correlation is significant at the 0.05 level (2-tailed).

Source : SPSS version 25 output. Data processed

Based on the *Pearson correlations*: it is known that the value of the current *ratio* and *Net profit margin* is $0.333 < r$ table is 0.632 , so it can be concluded that there is no relationship or no correlation between the *Current Ratio variable* and the *Net Profit Margin variable*. Furthermore, it is known that the calculated r value for the relationship between *Debt to Asset Ratio* and *Net profit Margin* is $-0.662 < r$ table 0.632 , it can be concluded that there is no relationship or no correlation between *Debt to Asset Ratio* and *Net Profit Margin*.

Hypothesis Test Partial T Test

**Table 10 Results of Hypothesis Test (t-Test)
Coefficients^a**

Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	50.56	47.07		1.074	0.318
1 CR	-0.023	0.079	-0.104	-0.294	0.777
DAR	-3.225	1.57	-0.725	-2.054	0.079

a. Dependent Variable: npm

Source : spss output version 25

From the results of the hypothesis test above, it can be interpreted as follows:

1. The *Current Ratio* variable (X1) has a calculated t value of -0.294 while the table t with a confidence level of 95% or (α ; 0.05) is 2.364 so that the comparison of $t_{\text{calculation}}$ with t_{table} is $(-0.294 < 2.364)$ with a significance value of 0.777 greater than the probability of 0.05 ($0.777 > 0.05$). It can be concluded that H_0 is accepted H_a rejected which means that the *Current Ratio* has no effect and is not significant to the *Net Profit Margin*.
2. The *Debt to Asset Ratio* (X2) variable has a calculated t value of -2.054 while the size of the table t with a confidence level of 95% or (α ; 0.005) is 2.364 . Therefore, the comparison of $t_{\text{calculation}}$ with t_{table} is $-2.054 < 2.364$ with a significance value of 0.079 greater than the probability of 0.005 ($0.079 > 0.05$). It can be concluded that H_0 accepted H_a rejected which partially *Debt to Asset Ratio* has no effect on *Net Profit Margin*.

Simultaneous F Test

**Table 11 Results of Hypothesis Test (Test F)
ANOVA^a**

Type	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1080.512	2	540.256	2.807	.127b
Residual	1347.088	7	192.441		
Total	2427.600	9			

Source : SPSS Data processed

Based on the table above, it can be seen that $F_{\text{counts}} > F_{\text{table}}$ ($2.807 < 4.74$) with a significant value of 0.127 less than 0.05 . Therefore, it can be concluded that H_{03} and H_{a3} are rejected, meaning that simultaneously the *Current Ratio* and *Debt to Asset Ratio* together do not have a significant effect on the *Net Profit Margin*

Determination Coefficient Analysis

**Table 12 Results of the Determination Coefficient Analysis Test
Model Summary^b**

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.701a	.492	.346	13.182	1.379

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Source : spss output version 25

Based on the table above, the magnitude of the influence value of the variable is shown by adjusted $R^2 = 0.492$ then $KD = r^2 \times 100\% = 0.492 \times 100\% = 49\%$ so it can be concluded that the contribution of *Current Ratio* and *Debt to Asset Ratio* to the dependent variable is *Net profit margin* of 49.2% and the remaining 50.8% from other variables that are not studied in this study.

Discussion

The Current Ratio does not have a significant effect on the *Net Profit Margin* at PT. Polychem Indonesia Tbk. Period 2013-2022. The results of this study are supported by Safrani and Alwi (2021) who stated that *the Current Ratio* does not have a significant effect on *Net Profit Margin*.

Debt to Asset Ratio does not have a significant effect on the *Net Profit Margin* at PT. Polychem Indonesia Tbk. Period 2013-2022. The results of this study are in line with research conducted by Fadli, A, A. (2018) which states that partially the *Debt to Asset Ratio* variable does not have a significant effect on *Net Profit Margin*.

Current Ratio and *Debt to Asset Ratio* to *Net Profit Margin* simultaneously there is no significant effect on PT. Polychem Indonesia Tbk. Period 2013-2022. In accordance with the results of this study, supported by Safrani and Alwi (2021) who stated that *the Current Ratio* and *Debt to Asset Ratio* are not significant and do not affect the net profit margin simultaneously.

CONCLUSION

The results of the study show that *the Current Ratio* does not have a significant effect on the *Net Profit Margin* at PT. Polychem Indonesia Tbk. Period 2013-2022. *The Debt to Asset Ratio* does not have a significant effect on the *Net Profit Margin* at PT. Polychem Indonesia Tbk. Period 2013-2022. Simultaneously, *the Current Ratio* and *Debt to Asset Ratio* did not have a significant effect on the *Net Profit Margin* of PT. Polychem Indonesia Tbk. Period 2013-2022. Meanwhile, simultaneously the variables *Current Ratio* and *Debt to Asset Ratio* contributed to the *Net Profit Margin* of 49.2% while the remaining 50.8% was caused by other variables that were not studied in this study.

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