Effect of Cash Ratio and Debt to Asset Ratio on Net Profit Margin at PT. Indocement Tunggal Prakarsa Tbk

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Abstract

Cash is part of the liquidity ratio which is liquid which is commonly used in companies in carrying out their activities, debt is an obligation that must be paid by a company where debt is part of the solvency ratio and profit is the result of sales obtained by the company where this ratio is part of the profitability ratio. The independent variable used in this study is the Cash Ratio which is able to measure the availability of cash owned by the company to pay its current debts and the Debt to Asset Ratio to measure the amount of assets owned by the company in paying its debts, while the dependent variable is the Net Profit Margin used To calculate the net profit generated by the company on sales made by the company, the formulation of the problem formulated is the effect of the Cash Ratio and Debt to Asset Ratio on the Net Profit Margin. The methodology used is using SPSS version 22. With the results obtained that the correlation value is 0.980 where this number is close to 1, which means that there is a strong correlation between the variables, from the coefficient of determination which gives an effect of 93.4% and the rest influenced by other variables, and from the calculated F value of 36.251 with a significant value of 0.05 and F table of 6.944 which shows the calculated F value is greater than F table which means Ho is rejected and Ha is accepted which means that the Cash Ratio and Debt to Asset Ratio simultaneously have a significant influence on the Net Profit Margin.

Keywords: Cash, Debt, Cash Ratio (CR), Debt to Asset Ratio (DAR), Net Profit Margin (NPM).

1. Introduction

Financial statements can describe how the condition of a company. Financial statements are the result of the company's operational activities that will provide useful financial information for entities inside and outside the company to find out how the company's performance is in running its business. With the existence of financial statements in each certain period can be used to determine the estimated profit in the future period. The company's profit will be related to the survival of the company. In principle, with increasing profits in the company, investors will also be more interested in investing their capital in the company. For this reason, certain measures are needed to measure the company's ability to generate profits using certain analyzes. To find out whether a company's financial statements are good or not, it is necessary to conduct further analysis, the most common of which is to use ratios. Financial ratio analysis will help financial managers, investors and interested parties to evaluate the condition of the company and make decisions in the future.

Financial ratios that are often used to assess company performance are such as liquidity ratios, solvency ratios, profitability ratios, activity ratios. Cash Ratio is a liquidity ratio that is used to determine the company's ability to meet current debt by comparing the total cash or cash equivalent with current debt. Debt to Asset Ratio is part of the solvency ratio used to measure the company's ability to pay its obligations by comparing total debt with total assets. The higher this ratio, the more funding that comes from debt, it will be difficult for companies to obtain loans because they are unable to pay debts from their assets. The smaller this ratio, the smaller the company is financed with debt. Net Profit Margin is part of the profitability ratio used to measure the company's ability to generate profits by comparing net profit after tax with net sales. The higher this ratio, the better and will increase the attractiveness of investors to invest in the company.

2. Methodology

Place and Time of Research

The place and time of the research conducted by the author is at the Indonesia Stock Exchange sourced from www.idx.com. The research that the author did was at one of the companies engaged in cement, namely PT. Indocement Tunggal Prakarsa, Tbk, using data in the form of financial statements from the company for the period 2014 -2019. To obtain these data the authors conducted research on PT. Indocement Tunggal Prakarsa, Tbk, and this research was conducted from March to June 2020.

Types and Sources of Data

Data Type
The type of data used is quantitative, where this quantitative data is in the form of numbers as a tool for analysis in the form of financial reports.

Data Source
The data used in this study were sourced from: Data from PT. Indocement Tunggal Prakarsa, Tbk. In the form of company history, vision and mission, organizational structure, company line of business taken from the company's website, namely www.indocement.co.id. Data from www.idx.com listed on the Indonesia Stock Exchange in the form of financial reports from PT. Indocement Tunggal Prakarsa Tbk. 2014 – 2019 period

Data Collection Method

The data collection methods used in this study are: Literature research (Library Research), by collecting data from books, written works and literature relevant to the topic under study and related to the subjects obtained by researchers related to this research. Field research (Field Research), by collecting data from the company directly.

Research Variables

The variables used consist of two variables, namely the dependent variable and the independent variable: The dependent variable is the dependent variable or explanation that is influenced by other factors. In this study the dependent variable used by the author is Net Profit Margin (Y) which is the ratio used to measure the net profit generated by the company on sales. The higher this ratio, the better the company in showing its ability to generate high profits at a certain level of sales.

The independent variable is an independent variable that stands alone. In this study, the independent variable used by the researcher is the Cash Ratio (X1) where this ratio is used to measure how much cash the company has to pay its current debt. The higher this ratio, the greater the company's ability to pay its current debt. Debt to Asset Ratio (X2) where this ratio is used to measure the ratio between total debt and total assets. The greater this ratio, the greater the dependence of the company on external parties.

Data Analysis Techniques

Data analysis is a series of activities to conclude data that has been collected from research into results in the form of new discoveries. To analyze the data that has been obtained, the authors use the following data:

Descriptive Statistical Analysis
Descriptive statistical analysis is an analysis carried out by collecting data that can provide useful information, information can be in the form of the maximum value, minimum value, average value of the variables and standard deviation, while the variables discussed in this study are: Cash Ratio, Debt Ratio, and Net Profit Margin.

Classic Assumption Test
Tests on classical assumptions are carried out to produce reliable and valid parameters. The classical assumption test consists of: which will be explained as follows:
- Test Normality, used to test whether the residual value resulting from the regression is normally distributed or not. A good regression model is one that has a normally distributed residual value. In testing the normality of the data, it can be done by using the Graph Method and One Sample Kolmogorov Smirnov test. The graphical method is by looking at the spread of data on the diagonal source on the normal P-P plot of regression standardized residual graph. If the points spread around the line and follow the diagonal line, then the residual value is normal. The One Sample Kolmogrov Smirnov method is used to determine the distribution of the data, in this case whether the residual distribution is normal or not with the provision that if the significant profitability value is above 0.05 then the data is normally distributed, and if the significant profitability value is below 0.05 then the data is not normally distributed.
- Multicollinearity Test, used to test whether the regression model found a near perfect or perfect correlation between the independent variables in the regression model. A good regression model should not have a correlation between the independent variables. To determine whether there is multicollinearity seen from the value of Tolerance and Variance Inflation Factor (VIF) or by comparing the value of the coefficient of individual determination with the value of determination simultaneously. The Tolerance value must be more than 0.1 and the Variance Inflation Factor (VIF) must be less than 10. Comparing the value of the coefficient of individual determination with the value of determination simultaneously this method is taken by regressing each independent variable with other independent variables with the aim of knowing the coefficient value for each of the regressed variables. Then the value is compared with the value of the coefficient of determination. If it is greater (>) then multicollinearity occurs and if it is smaller (<) then there is no multicollinearity.
- Heteroscedasticity Test, the heteroscedasticity test aims to test whether in a regression model there is an inequality of variation from the residual from one observation to another. A good regression model is that there is no heteroscedasticity, namely by using the glejser test, looking at the pattern of dots on the scatterplots or testing the spearman correlation coefficient.
- Autocorrelation Test, the autocorrelation test aims to test whether there is a correlation between the residuals in period t and the residuals in the previous period. A good regression

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model is one that does not occur autocorrelation. This test can be done with the Durbin Watson test.

- Multiple Regression Equation Analysis is a statistical method used to determine the relationship between variables. This research uses multiple regression analysis to see the effect of the Cash Ratio and Debt to Asset Ratio variables on the Net Profit Margin. The purpose of this analysis is to predict or estimate the value of another variable under study. Which is formulated with:

$$Y = a + bX1 + bX2$$

Description:

Y = Dependent Variable (Net Profit Margin)
a = Constant
b = Regression Coefficient
X1 = Independent Variable (Cash Ratio)
X2 = Independent Variable (Debt to Asset Ratio)

- Correlation Coefficient Analysis is used to measure how big the correlation is between the independent variable and the dependent variable. To provide an interpretation of the correlation coefficient can be measured in the following way:

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Table 1. Guidelines for Providing Interpretation of Correlation Coefficients

Interval Value	Criteria
< 0,20	Very weak
0,20 - 0,399	Weak
0,40 - 0,599	Currently
0,60 - 0,799	Strong
0,80 - 1,00	Very strong

- Coefficient of Determination Analysis (R2), analysis of the coefficient of determination (R2) is used to measure the ability of the independent variable in explaining the dependent variable. The value of the coefficient of determination is between zero and one. The small value of R2 means that the ability of the independent variables in explaining the variation of the dependent variable is very limited. A value close to one means that the independent variables have provided almost all the information needed to predict the variation of the dependent variable.
- F Test (Simultaneous Test), the F test was conducted to determine whether all independent variables or independent variables had the same effect on the dependent variable or the dependent variable by comparing the significance of the calculated F value with the F table. The hypotheses to be tested are as follows:
  Ho : b1=b2=0 : not all independent variables have an effect simultaneously.
  Ho : b1≠b2≠0 : all independent variables have an effect simultaneously.
  The test is carried out by comparing the significance of Fcount with Ftable with the following conditions: If the value of Fcount > Ftable and Sig > 0.05 then Ho is accepted and Ha is rejected. If the value of Fcount < Ftable and Sig < 0.05 then Ho is rejected and Ha is accepted. Ho: No effect. Ha: There is an Influence.

3. Result and Discussion

Brief Company History PT. Indocement Tunggal Prakarsa Tbk

PT. Indocement Tunggal Prakarsa, Tbk. Is a company engaged in the cement industry with the trademarks of Semen Tiga Roda, Semen Rajawali and TR Superslag Cement. This company started operations on August 4, 1975. In 2019 PT. Indocement Tunggal Prakarsa Tbk is 44 years old. The journey started in 1975 with the establishment of a cement factory in the Citeureup area, West Java by PT. Distinct Indonesia Cement Enterprise (DICE). At the time of commencement of operations, the plant had an annual installed production capacity of 500,000 tonnes. PT. Perkasa Indonesia Cement Enterprise (PICE), PT. Perkasa Indah Indonesia Cement Putih Enterprise (PIICPE), PT.Perkasa Agung Utama Indonesia Cement Enterprise (PAUICE), PT. Perkasa Inti Abadi Indonesia Cement Enterprise (PIAICE) and PT. Perkasa Abadi Mulia Indonesia Cement Enterprise (PAMICE). On January 16, 1985 the six companies merged into one with the establishment of PT. Indocement Tunggal Prakarsa.

In 1989 the company entered a new phase by conducting an Initial Public Offering and became a public company by listing its shares on the Indonesia Stock Exchange (IDX). In order to anticipate stronger market growth, Indocement continues to increase the number of factories to increase production capacity. Currently, Indocement has 13 factories with a total annual production capacity of 24.9 million tons of cement. Ten factories are located in Citeureup Factory, Bogor, West Java, two factories in Palimanan Factory, Cirebon, West Java, and one factory is located in Tajur Factory, Kotabaru, South Kalimantan. The Company's vision is to become a leading cement producer in Indonesia, a player in the ready-mix concrete (RMC) market on the islands of Java and South Sumatra, and the number one player in the aggregate market in Greater Jakarta. The Company's mission is that we are in the business of providing quality cement and building materials at competitive prices while still paying attention to sustainable development. Meanwhile, the Company's Motto is to build a quality life. PT. Indocement Tunggal Prakarsa Tbk is engaged in the business of manufacturing, selling cement and ready-mixed concrete, as well as aggregate and trass. With the trademarks of Cement Tiga Roda, Semen Rajawali and TR Superslag Cement. Where at this time the cement factory owned by PT. Indocement Tunggal Prakarsa Tbk has 13 factories.

Discussion

The data collected for analysis in the form of cash ratio, debt ratio and net profit margin is shown in the table below:

Table 2. Net Profit Margin (NPM)

Year	Cash Ratio	Debt Ratio	NPM
2014	345,22 %	14,91 %	26,47 %
2015	322,03 %	13,64 %	24,47 %
2016	303,47 %	13,30 %	25,19 %
2017	238,42 %	14,92 %	12,88 %
2018	184,06 %	16,43 %	7,54 %
2019	197,54 %	16,70 %	11,51 %

Source:Data processing

To prove whether or not there is an influence between Cash Ratio and Debt to Asset Ratio on Net Profit Margin, the above data is processed using SPSS vesri 22 and the results are as follows:

Descriptive Statistical Analysis

Table 3. Descriptive Statistics Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Cash Ratio	6	184,06	345,22	265,1233	67,78813
DAR	6	13,30	16,70	14,9833	1,39193
NPM	6	7,54	26,47	18,0100	8,28304
Valid N (listwise)	6				

Source: Using SPSS Version 22 data

Based on table 3 above, the following results are obtained, Cash Ratio in table 3 above can be seen that PT. Indocement Tunggal Prakarsa Tbk for the 2014-2019 period has a minimum value of 184.06, a maximum value of 345.22 and an average value of 265.1233 which has a positive value with a standard deviation of 67.78813, which means the data deviation in the variable The cash ratio is said to be good because the cash ratio has a small distribution because the standard deviation is smaller than the average value. Debt to Asset Ratio in table 3 above can be seen that PT. Indocement Tunggal Prakarsa Tbk period 2014-2019 has a minimum value of 13.30, a maximum value of 16.70 and has an average value of 14.9833 which has a positive value with a standard deviation of 1.39193, which means the data deviation in the variable the debt to asset ratio is said to be good because the debt to asset ratio has a small distribution because the standard deviation is smaller than the average. Net Profit Margin in table 3 above can be seen that PT. Indocement Tunggal Prakarsa Tbk period 2014-2019 has a minimum value of 7.54, a maximum value of 26.47 with a standard deviation of 8.28304, which means that the data deviation in the net profit margin variable is said to be good because the net profit margin has a small distribution because the standard deviation is smaller than the mean value.

Normality Test

Normality test is used to determine whether the residual value resulting from the regression is normally distributed or not. The results of the normality test using the graphical method to see the spread of points on the diagonal source are normal or not. The data can be seen in the following figure:
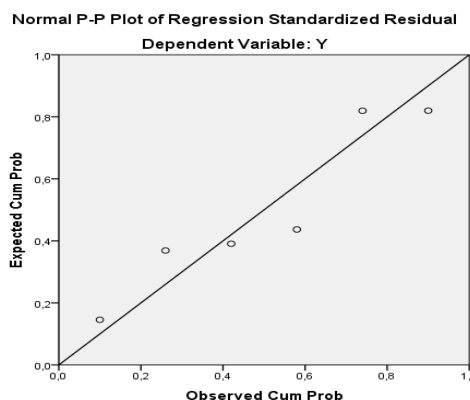
Figure 1. Normality Test Results with Graph Method

In Figure 1, it can be seen that the location of the points spreads around the line and follows the diagonal line, it can be concluded that the residual value is normal.

Multicollinearity Test

Multicollinearity test was used to test whether the regression model found a near perfect correlation between the dependent variable and the independent variable. Multicollinearity test using the tolerance value method and Variable Inflation Factor (VIF), the tolerance value must be more than 0.1 and the VIF must be less than 10. The data can be seen in the following table:

Table 4. Multicollinearity Test with Tolerance Value Method and VIF

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-1,685	22,524		-,075	,945		
Cash Ratio	,109	,024	,894	4,640	,019	,356	2,805
DAR	-,619	1,147	-,104	-,540	,627	,356	2,805

Source: Using SPSS Version 22 data

In Table 4 it can be seen that the Tolerance Value > 0.1 and VIF < 10 means that in the regression model there is no multicollinearity.

Heteroscedasticity Test

Heteroscedasticity test is conducted to test whether in a regression model there is an inequality of variation of the residuals in one observation with other observations. Heteroscedasticity test can be tested using the glejser test with a significance value between the independent variables with absolute residual greater than 0.05. The data can be seen as follows:

Table 5. Heteroscedasticity Test with Glejser

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	12,371	8,768		1,411	,253		
Cash Ratio	-,013	,009	-1,074	-1,448	,243	,356	2,805
DAR	-,504	,447	-,837	-1,129	,341	,356	2,805
a. Dependent Variable: abs_res							

Source: Using SPSS Version 22 data

From table 5 it can be seen that the significant value of the two independent variables is greater than 0.05, meaning that there is no heteroscedasticity in the regression model.

Autocorrelation Test

Autocorrelation test is used to test whether in a regression model there is an inequality of variation of the residuals in one observation with other observations. Autocorrelation test can be done with Durbin-Watson test. Provided that if DU < DW < 4-DU then it is accepted because there is no autocorrelation, if DU < DL or DW > 4-DL then it is rejected due to autocorrelation, if DL < DW < DU or 4-DU < DW < 4-DL means there is no definite conclusion. For DU and DL values, it can be seen from the Durbin – Watson statistical table with the results obtained, namely the value of n = 6

and k = 2, then the value of DL = 0 and DU = 0 so that 4-DL = 4 and 4-DU = 4. autocorrelation test data can be seen as follows:

Table 6. Autocorrelation Test with Durbin Watson Test Method

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,980ᵃ	,960	,934	2,13156	2,463
a. Predictors: (Constant), X2, X1					
b. Dependent Variable: Y					

In table 6 it can be concluded that the Durbin-Watson of 2.463 is located between DW < DL (2.643 < 4) then the data is rejected due to autocorrelation.

Multiple Regression Analysis

Multiple regression analysis was used to determine the relationship between the variables of Cash Ratio and Debt to Asset Ratio on Net Profit Margin.

Table 7. Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1,685	22,524		-,075	,945
	Cash Ratio	,109	,024	,894	4,640	,019
	DAR	-,619	1,147	-,104	-,540	,627
a. Dependent Variable: NPM						

The form of the multiple regression equation is as follows:

$$Y = a + b1X1 + b2X2$$

Variable Y (Net Profit Margin), a = -1.685 the constant value of -1.685 means that if the independent variables, namely the Cash Ratio and Debt to Asset Ratio, are equal to zero. Then the change in the value of the dependent variable is -1.685. b1 = 0.109 If the value of the Cash Ratio increases by 1%, the NPM will increase by 0.109% assuming other factors are constant. b1 = - 0.619. If the value of the Debt to Asset Ratio increases by 1%, the NPM will increase by -0.619% assuming other factors are constant. So for the multiple regression equation as follows:

$$Y = -1.685 + 0.109X1 – 0.619X2$$

Correlation Coefficient Analysis

The results of data processing with SPSS version 22 are obtained as follows:

Table 8. Coefficient Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,980ᵃ	,960	,934	2,13156

Based on table 8, it can be seen that the results of the analysis of the correlation coefficient between the Cash Ratio and the Debt to Asset Ratio to the Net Profit Margin are from an R value of 0.980. This shows the effect is very strong. Analysis of the coefficient of determination is used to measure the ability of the independent variable in explaining the dependent variable. Based on table 8 above, the value of the Coefficient of Determination can be seen from the amount of Adjust R Square, which is 0.934 or 93.4%. This means that the effect of the cash ratio and debt to assets ratio on the net profit margin is 93.4% while the remaining 6.6% is influenced by other factors not examined in this study.

4. Conclusion

Based on the results of research and discussion as a whole, it can be concluded that the Effect of Cash Ratio and Debt to Asset Ratio on Net Profit Margin are: Based on the SPSS data that has been processed, it is obtained that the Cash Ratio and Debt to Asset Ratio simultaneously have a significant influence on the Net Profit Margin. This is indicated by the correlation coefficient value of 0.980 where this number is close to 1 which means that there is a very strong correlation between variables, seen also from the value of the coefficient of determination which gives an effect of 93.4% and 6.6% is influenced by other variables. And from the calculated F value of 36.251 with a significance value of 0.05. By using table F, the F table value is 6.944 which shows the calculated F value is greater than F table, which means Ho is rejected and Ha is accepted. Which means that the Cash Ratio and Debt to Asset Ratio simultaneously have a significant influence on the Net Profit Margin.

The suggestions given by researchers are based on research that has been done to be used as input for the company, researchers suggest managing cash, in managing cash to be even more optimal because the value of cash fluctuates causing the cash ratio to be unstable, this shows cash management is not effective and efficient. The lower the cash value, the less money the company has to pay for the company's daily needs, this will disrupt the company's operations. Debt is a source of company funds, both short-term debt and long-term debt. If too much debt is also not good, therefore in managing debt the company must be careful in seeking funds from debt because the greater the debt, the greater the company's dependence on debt, this can lead to a debt to asset ratio. increased which means ineffective and inefficient as well. Companies should be careful and full of considerations and calculations in finding funds that come from debt. Companies must pay attention to the level of sales, because the declining sales each year will result in decreased profits and vice versa if sales increase can increase the net profit generated by the company. This can increase the net profit margin. So the company must further increase the level of sales which can be through credit sales policies or discount sales policies in order to generate maximum profits. Debt that is not needed by the company to be reduced to reduce debt owned by the company.

References

Bunaya, Emma Rofika, 2013, *Pengaruh Cash Ratio, Debt to Equity Ratio, dan Earning Per Share Terhadap Cash Deviden Pada Perusahaan Jasa Non Keuangan Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2006-2009,* Skripsi Universitas Negeri Yogyakarta, Yogyakarta

Harjito D. Agus & Martono, 2013, *Manajemen Keuangan,* Edisi Kedua,Cetakan Ketiga, Ekonisia, Yogyakarta

Hazriani, 2017, *Analisa Pengaruh Debt to Asset Ratio dan Debt to Equity Terhadap Profitabilitas Pada PT. Ciputra Development Tbk. Selama Periode 2008-2013,* Universitas Tama Jagakarsa, Jakarta

Hery, 2016. *Analisis Laporan Keuangan,* Gramedia, Jakarta

Kasmir, 2014, *Analisis Laporan Keuangan,* Raja Grapindo Persada, Depok

Mustaqim, 2019, *Workshop SPSS 24,* Modul Universitas Tama Jagakarsa, Jakarta

Oktaviani,Yeni, 2018, *Pengaruh Current Ratio, Debt to Total Asset Ratio,Debt to Equity Ratio Dan Net Profit Margin terhadap Harga Saham Pada Perusahaan Food And Beverage Yang Terdaftar Di BEI Periode 2013-2016,* Universitas Maritim Raja Ali Haji, Tanjung Pinang

Riyanto Bambang, 2011. *Dasar – Dasar Pembelanjaan Perusahaan,* Edisi Keempat, BPFE, Yogyakarta

Rudianto, 2012, *Pengantar Akuntansi,* Erlangga, Jakarta

Subramanyam dan John J. Wild, 2014, *Analisis Laporan Keuangan,* Salemba Empat, Jakarta

Wahnida, Selva, 2017, *Pengaruh Current Ratio, Debt to Asset Ratio dan Return on EquityTerhadap Harga Saham Perusahaan Pada Sektor Pertanian Dalam Kelompok ISSI,* UIN Raden Fatah, Palembang

www.idx.co.id

www.indocement.co.id.