

## **Analysis Of Financial Health Level On Financial Performance In Cement Companies Listed On The Indonesian Stock Exchange (Idx)**

**Dhea Zatira<sup>1)</sup>**

dhea.zatira@umt.ac.id

**Ria Puspitasari<sup>2)</sup>**

[ria.puspitasari@umt.ac.id](mailto:ria.puspitasari@umt.ac.id)

<sup>1)2)</sup>Universitas Muhammadiyah, Fakultas Ekonomi dan Bisnis

### **ABSTRAC**

*This study aims to analyze the Level of Financial Soundness on Financial Performance in Cement Companies that are Go Public Listed on the Indonesia Stock Exchange (BEI). Analysis of the level of financial health using the Altman Z-Score with several ratios, namely the ratio of Working Capital to Total Assets (X1), the ratio of retained earnings to total assets (X2), the ratio of EBIT to Total Assets (X3), the ratio of stock market value to book value of liabilities (X4), the ratio of Sales to Total Assets (X5) to the dependent variable on Financial Performance (Return on Assets). The data analysis technique used in this research is the Altman Z-Score with the criteria for bankruptcy and to find its effect with the panel data regression model assisted by E-Views software. The results of the calculation and analysis of the Z-Score criteria in cement companies in Indonesia, it is known that there is no cement company whose company finances are stated in a healthy condition. One company is prone to bankruptcy (gray zone) while the rest according to the Z-Score criteria are bankrupt. Furthermore, based on the panel data regression examiner simultaneously the five independent variables on financial performance (Y), while partially the working capital ratio to total assets (X1) affects financial performance (Y), the retained earnings ratio to total assets (X2) has no effect on Financial performance (Y), EBIT ratio to total assets (X3) affects financial performance (Y), stock market value ratio to book value of liabilities (X4) has no effect on financial performance (Y), Sales to Total Assets ratio (X5) affect financial performance.*

**Keyword: Altman Z-Score and Financial Performance**

## PRELIMINARY

The more rapidly developing business world in the era of globalization requires companies to be more effective and efficient in running their businesses. In general, a company is established with the aim of obtaining optimal profit, as well as for cement companies, the current economic development can be seen from the proliferation of more equitable development, so that the need for cement is increasing from year to year. However, the many cement companies make competition even higher, so that companies that are not able to compete cannot survive. Increased raw material prices and other costs that are not balanced with the company's capital capacity are reasons that will hinder the company's operations, this in turn will have an impact on the high selling price of the product which causes the product to be difficult to sell in the market and can also cause the company experiencing financial difficulties until bankruptcy.

Financial difficulties begin when the company cannot meet the payment schedule or when cash flow projections indicate that the company will soon fail to fulfill its obligations (Brigham and Daves in Fachrudin (2008: 2)). It is necessary to know how financially sound a company is to prevent bankruptcy for the company's management, so that it can determine the next appropriate steps to take. Likewise for investors, information regarding financial health will determine whether or not an investor should invest in the company. One method to detect bankruptcy can be used the *Z-Score* Analysis model. Altman, a financial economist, developed the *Z-Score* model from a multiple discriminant technique that uses several variables including several financial ratios. So that to examine the *Z-Score* Analysis model, financial statements from the balance sheet and profit and loss are needed.

The financial health of a company will affect the performance it will produce, according to Fahmi (2012: 2). Financial performance is a reflection of how successful the company's management is in achieving company goals, which can be seen from the various activities that have been carried out. According to Dewa and Sitohang (2015) Financial performance is used to evaluate the efficiency and effectiveness of a business. Company performance appraisal can also be done by analyzing the company's financial statements, of course, a good financial report is one that can provide returns to investors and creditors on a regular basis. Profitability ratios can be used to measure the company's performance in generating returns that can be allocated to external parties. The healthier a company, the better the company's performance.

The main data as input in this ratio analysis are the company's income statement and statement of financial position (balance sheet). With this report, a number of ratios can be determined and then this ratio can be used to assess several aspects of the company's operations (Syamsudin, in Khamida, 2012). This study will analyze company performance as measured by profitability ratios, namely return on assets and five financial ratios to detect financial health in the future using the Almant *Z-Score* discriminant method. The five ratios consist of the Ratio of Working Capital to Total Assets (X1), the Ratio of Retained Earning to Total Assets (X2), the ratio of EBIT to Total Assets (X3), the Ratio of Market Value of Share to Book Value (X4) and the Ratio of Sales to Total. Assets (X5).

The research objects to be used are publicly traded cement companies listed on the Indonesia Stock Exchange (IDX), namely PT Indocement Tunggal Prakarsa Tbk, PT

Semen Indonesia Tbk, PT Wijaya Karya Beton Tbk, PT Semen Baturaja Tbk, PT Solusi Bangun Indonesia Tbk., And PT Waskita Beton Precast Tbk.

The six companies are able to present financial reports regularly and periodically from 2016 to 2019 so that they will be used as research objects with the title "**Analysis of Financial Health Levels on Financial Performance at Go Public Cement Companies Listed on the Indonesia Stock Exchange (BEI)**".

## DISCUSSION OF RESEARCH RESULTS

### A. Analysis of Financial Soundness Level and Bankruptcy Predictions

Z-Score analysis is an analysis that can be used to determine the signs or symptoms of unhealthy company. With Z-Score analysis, management can predict how the company's prospects in the future will maintain its survival. The greater the Z value, the greater the guarantee for the survival of the company and the less risk of failure. Z-Score analysis is used to predict company bankruptcy. In addition, bankruptcy analysis is useful because it can make companies anticipate what is needed (Khamidah, 2012). The bankruptcy analysis model (Z-score) from Altman et al. (1995) which has been revised in Boedi and Devi (2013) is as follows:

Information:

$X_1$  = Rasio *Working Capital to Total Assets*

$X_2$  = Rasio *retained earning to total assets*

$X_3$  = Rasio *EBIT to Total Assets*

$X_4$  = Rasio *Market Value Of Share to Book Value of Liability*

$X_5$  = Rasio *Sales to Total Assets*

The criteria for bankruptcy according to Altman in Hanafi & Abdul Halim, 2007 are as follows:

**Table 1. Bankruptcy Criteria**

No.	Altman Z-Score	Predikat
1	$Z_i > 2.90$	Sehat
2	$Z_i$ diantara 1.20 – 2.90	Rawan Bangkrut (Grey Area / zone of ignorance)
3	$Z_i < 1.20$	Bankrut

After calculating the respective values of  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$  and  $X_5$  for four consecutive years, it can be seen that the average Z-Score value of cement companies in Indonesia is presented in the following table: PT Indocement Tunggal Prakarsa Tbk.

#### 1. PT Indocement Tunggal Perkasa

**Table 2. Z-Score Calculation of PT Indocement Tunggal Prakarsa Tbk**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	0.373	0.267	0.326	0.234	0.302	0.216	0.323	0.232
X2	0.847	0.726	0.615	0.704	0.596	0.689	0.584	0.675	0.572
X3	3.107	0.138	0.427	0.079	0.246	0.029	0.089	0.069	0.213
X4	0.420	0.457	0.192	0.427	0.179	0.403	0.169	0.066	0.028
X5	0.998	0.510	0.508	0.500	0.499	0.566	0.565	0.575	0.574
Nilai Z-Sscore		2.010		1.755		1.623		1.619	
Rata-rata Kriteria		$(2.010 + 1.755 + 1.623 + 1.619) / 4 = 1.752$							
		(Rawan Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score of PT Indocement Tunggal Prakarsa Tbk in 2016-2019, it is prone to bankruptcy because the Z-score is 1.752, which means  $1.20 < 1.752 < 2.9$ .

2. PT Semen Indonesia Tbk.

**Table 3. Z-Score Calculation of PT Semen Indonesia Tbk.**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	0.050	0.036	0.102	0.073	0.156	0.112	0.055	0.040
X2	0.847	0.052	0.044	0.005	0.004	0.045	0.038	0.014	0.012
X3	3.107	0.157	0.489	0.100	0.311	0.130	0.402	0.109	0.339
X4	0.420	0.434	0.182	0.320	0.134	0.326	0.137	0.135	0.057
X5	0.998	0.591	0.590	0.568	0.567	0.604	0.603	0.506	0.505
Nilai Z-Sscore		1.342		1.090		1.292			0.952
Rata-rata Kriteria		$(1.342 + 1.090 + 1.292 + 1.952) / 4 = 1.169$							
		(Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score of PT Semen Indonesia Tbk. 2016-2019 went bankrupt because the Z value was  $1.169 < 1.20$ .

3. PT Wijaya Karya Beton Tbk.

**Table 4. Z-Score Calculation of PT Wijaya Karya Beton Tbk.**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	0.124	0.089	0.019	0.014	0.070	0.050	0.094	0.068
X2	0.847	0.049	0.042	0.037	0.031	0.043	0.037	0.035	0.030
X3	3.107	0.073	0.227	0.059	0.184	0.070	0.217	0.061	0.188
X4	0.420	0.384	0.161	0.190	0.080	0.145	0.061	0.122	0.051
X5	0.998	0.747	0.745	0.759	0.757	0.780	0.779	0.685	0.684
Nilai Z-Sscore		1.264		1.066		1.143			1.021
Rata-rata Kriteria		$(1.264 + 1.066 + 1.143 + 1.021) / 4 = 1.123$							
		(Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score of PT Wijaya Karya Beton Tbk. 2016-2019 went bankrupt because the Z value was  $1.123 < 1.20$ .

4. PT Semen Baturaja Tbk.

**Table 5. Z-Score Calculation of PT Semen Baturaja Tbk.**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	0.090	0.064	0.064	0.046	0.093	0.067	0.078	0.056
X2	0.847	0.033	0.028	0.014	0.012	0.006	0.005	0.002	0.001
X3	3.107	0.234	0.726	0.118	0.366	0.139	0.431	0.135	0.419
X4	0.420	0.331	0.139	0.253	0.106	0.202	0.085	0.200	0.084
X5	0.998	0.348	0.347	0.306	0.305	0.397	0.396	0.352	0.351
Nilai Z-Sscore		1.304		0.836		0.984			0.911
Rata-rata Kriteria		$(1.304 + 0.836 + 0.984 + 0.911) / 4 = 1.009$							
		(Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score of PT Semen Baturaja Tbk. 2016-2019 went bankrupt because the Z value was  $1,009 < 1.20$ .

## 5. PT Solusi Bangun Indonesia Tbk..

**Table 6. Z-Score Calculation of PT Solusi Bangun Indonesia Tbk.**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	-0.145	-0.104	-0.126	-0.090	-0.383	-0.274	0.012	0.009
X2	0.847	-0.020	-0.017	-0.039	-0.033	-0.044	-0.037	0.026	0.022
X3	3.107	-0.009	-0.027	0.011	0.035	0.002	0.007	0.064	0.198
X4	0.420	0.327	0.138	0.309	0.130	0.313	0.131	0.304	0.128
X5	0.998	0.479	0.478	0.478	0.477	0.056	0.055	0.565	0.564
Nilai Z-Sscore		0.467		0.519		-0.117			0.920
Rata-rata Kriteria		$(0.467 + 0.519 - 0.117 + 0.920) / 4 = 0.447$							
		(Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score P PT Solusi Bangun Indonesia Tbk. Semen Baturaja Tbk. 2016-2019 went bankrupt because the Z value was 0.447 < 1.20.

## 6. PT Waskita Beton Precast Tbk.

**Table 7. Z-Score Calculation of PT Waskita Beton Precast Tbk.**

RASIO	z	Tahun							
		2016		2017		2018		2019	
X1	0.717	0.245	0.176	0.267	0.191	0.191	0.137	0.230	0.165
X2	0.847	0.053	0.045	0.095	0.080	0.116	0.099	0.125	0.106
X3	3.107	0.085	0.263	0.109	0.338	0.111	0.344	0.078	0.243
X4	0.420	0.417	0.175	0.347	0.146	0.359	0.151	0.329	0.138
X5	0.998	0.343	0.343	0.476	0.475	0.526	0.524	0.462	0.461
Nilai Z-Sscore		1.002		1.230		1.255			1.113
Rata-rata Kriteria		$(1.002 + 1.230 + 1.255 + 1.113) / 4 = 1.150$							
		(Bangkrut)							

(Source: Data processed, 2020)

Based on the calculation of the average Z-Score P PT Waskita Beto Precast Tbk. Semen Baturaja Tbk. 2016-2019 went bankrupt because the Z value was 1,150 < 1.20.

Based on the results of the calculation and analysis of the Z-Score criteria in cement companies in Indonesia, it can be concluded that there is no cement company whose company finances are stated in a healthy state. One company that is prone to bankruptcy (gray zone) is PT Indocement Tunggal Prakarsa Tbk. Meanwhile, PT Semen Indonesia Tbk, PT Wijaya Karya Beton Tbk, PT Semen Baturaja Tbk, PT Solusi Bangun Indonesia Tbk., And PT Waskita Beton Precast based on the Z-Score criteria went bankrupt.

Companies that are prone to bankruptcy can avoid this by paying attention to signs of bankruptcy (Lesmana and Surjanto in Qishti, et al (2013)) such as: Sales or income that has decreased significantly, Decreased profit and / or cash flow from operations, Decreased total assets, prices The stock market has decreased significantly, the possibility of failure in the industry is high. The company is young and has significant cuts in dividends.

### C. Panel Data Model Test

#### 1. Chow test

Chow test is done by comparing CEM with FEM

**Table 8. Chow test**

Redundant Fixed Effects Tests  
Equation: Untitled  
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.721476	(5,13)	0.1990
Cross-section Chi-square	12.194052	5	0.0322

(Source: E-Views Data Processing, 2020)

The Chi-square cross-section probability value is  $0.0322 < 0.05$ , meaning that FEM is more suitable for use in this model. Then the Hausman test must then be carried out.

#### 2. Hausman test

Conducted if the results of the Chow test, the FEM model are more suitable. Hausman test is done by comparing FEM with REM.

**Table 9. Hausman Test**

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.607379	5	0.1258

(Source: E-Views Data Processing, 2020)

Based on table 9, the Chi-square cross-section probability value  $0.1258 > 0.05$  means that the model that is more suitable for use in this test is the Random Effect Model, then the Multiple Langrange test must be carried out.

#### 3. Multiple Langrange Test

The LM test is used to compare the Common Effect Model with the Random Effect Model.

**Table 10. Multiple Langrange Test**

Lagrange multiplier (LM) test for panel data  
Date: 09/04/20 Time: 23:09  
Sample: 2016 2019  
Total panel observations: 24  
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Honda	-1.372459 (0.9150)	0.678727 (0.2487)	-0.490543 (0.6881)

(Source: E-Views Data Processing, 2020)

Based on table 10, it is known that the Prob Breusch Pagan value is  $0.9150 > 0.05$ , which means that the model that is more suitable for use in this study is the Common Effect Model. The Common Effect model can be seen in the table below.

**Table 11. Common Effect Model**

Dependent Variable: ROA Method: Panel Least Squares Date: 09/04/20 Time: 23:43 Sample: 2016 2019 Periods included: 4 Cross-sections included: 6 Total panel (balanced) observations: 24				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.091070	0.024661	-3.692947	0.0017
X1	0.108471	0.038027	2.852473	0.0106
X2	0.017599	0.022448	0.783987	0.4432
X3	0.359517	0.085984	4.181193	0.0006
X4	0.053423	0.030834	1.732592	0.1003
X5	0.135743	0.032281	4.205017	0.0005
R-squared	0.832221	Mean dependent var		0.042306
Adjusted R-squared	0.785616	S.D. dependent var		0.038839
S.E. of regression	0.017983	Akaike info criterion		-4.986465
Sum squared resid	0.005821	Schwarz criterion		-4.691952
Log likelihood	65.83758	Hannan-Quinn criter.		-4.908331
F-statistic	17.85681	Durbin-Watson stat		2.423335
Prob(F-statistic)	0.000002			

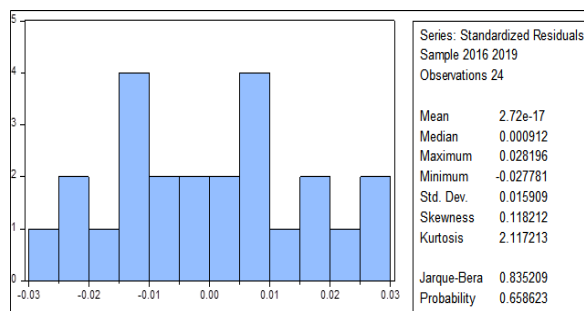
(Source: E-Views Data Processing, 2020)

Because the Common Effect Model is more suitable for use in this study, this research needs to test the classical assumptions.

### C. Classical Assumption Test

#### 1. Normality Test

**Figure 1. Normality Test**



(Source: E-Views Data Processing, 2020)

Based on Figure 1, it is known that the Jarque-Bera value is 0.835209 and the probability is 0.658623. Jarque-Bera value of  $0.835209 > 0.05$  means that the residuals are normally distributed.

## 2. Multicollinearity Test

**Table 12. Multicollinearity Test**

	X1	X2	X3	X4	X5
X1	1	0.69500934...	0.38948123...	0.25726447...	-0.0805318...
X2	0.69500934...	1	-0.0108825...	0.17578664...	0.04436266...
X3	0.38948123...	-0.0108825...	1	0.03867747...	-0.3605221...
X4	0.25726447...	0.17578664...	0.03867747...	1	-0.2308116...
X5	-0.0805318...	0.04436266...	-0.3605221...	-0.2308116...	1

(Source: E-Views Data Processing, 2020)

Based on table 12 it can be seen that there is no variable whose value is more than 0.8, so it can be concluded that there is no multicollinearity in this regression model.

## C. Panel Data Regression Test

To determine the functional relationship between variables X1, X2, X3, X4, X5 and variable Y (Return on Assets), multiple linear regression analysis is used.

**Table 13. multiple linear regression Analysis**

Variable	Coefficient	Std. Error
C	-0.091070	0.024661
X1	0.108471	0.038027
X2	0.017599	0.022448
X3	0.359517	0.085984
X4	0.053423	0.030834
X5	0.135743	0.032281

(Source: E-Views Data Processing, 2020)

Based on table 13, the equation for multiple linear regression analysis is as follows:

$$Y = -0,091070 + 0,108471 + 0,017599 + 0,359517 + 0,053423 + 0,135743 + \epsilon$$

The multiple linear equation above has the following meanings:

- If X1, X2, X3, X4 and X5 = 0, then Y is equal to the constant value, namely -0.09107
- If X1 = 1, X2, X3, X4 and X5 = 0, then every 1 unit addition of X1 will add Y by 0.0108471.
- If X2 = 1, X1, X3, X4 and X5 = 0, then every 1 unit addition of X2 will add Y by 0.017599.
- If X3 = 1, X1, X2, X4 and X5 = 0, then every 1 unit addition of X3 will add Y by 0.359517.
- If X4 = 1, X1, X2, X3 and X5 = 0, then each addition of 1 unit of X4 will add to the Y value of 0.053423
- If X5 = 1, X1, X2, X3 and X4 = 0, then each addition of 1 unit of X5 will add to the Y value by 0.135743.

## C. Hypothesis Testing

### 1. F-test

The F test is intended to test whether all the independent variables contained in the model have a joint influence on the dependent variable.



**Table 14. F test**

F-statistic	17.85681
Prob(F-statistic)	0.000002

(Source: E-Views Data Processing, 2020)

Table 14 shows that the value of the F-statistic or F-count is 17.85681, while the F-table with a level of  $\alpha = 5\%$ ,  $df_1 (k-1) = 4$ ,  $df_2 (nk) = 19$ . Obtained an F-table value of 2.90 means that F-count  $17.85681 > F$ -table 2.90 and the probability value F-statistic  $0.000002 < 0.05$ , then  $H_1$  is accepted, so it can be concluded that  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$  and  $X_5$  together have an effect on  $Y$ .

## 2. R<sup>2</sup> test

Testing the coefficient of determination (R<sup>2</sup>) aims to measure how far the model's ability to explain the variation of dependent variables. The value of the coefficient of determination is between zero and one. If the coefficient of determination of a model is close to one, it means that the independent variables can provide almost all the information needed to explain variations in the dependent variable (Arry, 2017).

**Tabel 15. Uji R<sup>2</sup>**

R-squared	0.832221
Adjusted R-squared	0.785616

(Source: E-Views Data Processing, 2020)

Table 15 menunjukkan bahwa nilai Adjusted R-squared sebesar 0,785616, artinya variasi perubahan naik turunnya  $Y$  dapat dijelaskan oleh  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$  dan  $X_5$  sebesar 78,5616% sementara sisanya 21,4384% dijelaskan oleh variable-variabel lain yang tidak diteliti dalam penelitian ini.

## 3. The t-test

To show how far the influence of one explanatory or independent variable is individually in explaining the variation of the dependent variable, partial testing is required (Gozali, 2016). Partial test is a test that measures the magnitude of the influence of each independent variable, namely the variables EPS, PBV, ROA, DER and GPM on the dependent variable, namely the Stock Price.

**Table 16. t - Test**

Variable	t-Statistic	Prob.
C	-3.692947	0.0017
X1	2.852473	0.0106
X2	0.783987	0.4432
X3	4.181193	0.0006
X4	1.732592	0.1003
X5	4.205017	0.0005

(Source: E-Views Data Processing, 2020)

### a. t - test (partial) Hypothesis 1: Working Capital to Total Assets (X1) on Financial Performance (Y).

The t-statistic or t-count  $X_1$  value is 2.852473, while the t-table value with a level of  $\alpha = 5\%$ ,  $df (n-k) = 19$ , the t-table value is 2.093. Thus, t statistic  $2.852473 > t$ -table 2.093

and a probability value of  $0.0106 < 0.05$ , then  $H_1$  is rejected so that it can be concluded that the hypothesis of the independent variable  $X_1$  has a positive and significant effect on the dependent variable, namely Financial Performance (Y) of the Cement company listed on the Indonesia Stock Exchange for the period 2016-2019.

The higher the ratio of working capital to total assets means that the greater the amount of capital used to spend on assets comes from capital than from debt. Companies that have a small interest expense, then the company's net profit will be even greater. The amount of net profit indicates that the company has a good financial performance because it is able to manage any capital given by investors to become profits that can be distributed to them.

**b. t - Test (partial) Hypothesis 2: Ratio of Retained Earning to Total Assets ( $X_2$ ) to Financial Performance (Y).**

The t-statistic or t-value  $X_2$  is 0.783987, while the t-table value with a level of  $\alpha = 5\%$ ,  $df (n-k) = 19$ , the t-table value is 2.093. Thus t statistic  $0.783987 < t\text{-table } 2.093$  and probability value  $0.4432 > 0.05$ , then  $H_1$  is accepted so that it can be concluded that the hypothesis of the independent variable  $X_2$  has no effect on the dependent variable, namely Financial Performance (Y) of the cement companies listed on the Stock Exchange. Indonesian Securities for the period 2016-2019.

The higher this ratio, the more retained earnings are used to spend the required assets. Retained earnings is a condition in which investors give up some of the profits that should be received but are reinvested in the company with the aim of being able to provide benefits in the future. The greater the retained earnings, the greater the financial burden to be borne by the company, if the company does not manage retained earnings properly, the sacrifices made by investors will not have an effect on the increase in the expected rate of profit. In other words, retained earnings will not affect the company's financial performance

**c. t - test (partial) Hypothesis 3: Ratio of EBIT to Total Assets ( $X_3$ ) to financial performance (Y)**

The t-statistic value or t-count  $X_3$  is 4.181193, while the t-table value with a level of  $\alpha = 5\%$ ,  $df (n-k) = 19$ , the obtained t-table value is 2.093. Thus, t statistic  $4.181193 > t\text{-table } 2.093$  and a probability value of  $0.0006 < 0.05$ , then  $H_1$  is rejected, so it can be concluded that the independent variable hypothesis  $X_3$  has a positive and significant effect on the dependent variable, namely Financial Performance (Y) of listed cement companies. on the Indonesia Stock Exchange for the period 2016-2019.

The higher this ratio, it means that the total assets owned by the company are able to generate bigger profits before debt and taxes. This can happen if the company's management is able to properly manage assets, especially cash, accounts receivable and inventories. So that the higher the ratio of earnings before interest and taxes to total assets, the higher the company's financial performance.

**d. t - test (partial) Hypothesis 4: Ratio of Market Value of Share to Book Value of Liability ( $X_4$ ) to Financial Performance (Y).**

The t-statistic or t-count  $X_4$  value is 1.732592, while the t-table value with a level of  $\alpha = 5\%$ ,  $df (n-k) = 19$ , the t-table value is 2.093. Thus t statistic  $1.732592 < t\text{-table } 2.093$  and probability value  $0.1003 > 0.05$ , then  $H_1$  is accepted so that it can be

concluded that the independent variable hypothesis X4 has no effect on the dependent variable, namely Financial Performance (Y) of the cement companies listed in Indonesia Stock Exchange 2016-2019 period.

The higher this ratio, it means that the amount of capital owned by the company is greater than the debt it has. The source of capital must be adjusted to the needs and prospects of the company, because the source of capital originating from debt will provide an interest expense that must be borne by the company, while the source of capital from its own capital (share capital) will provide a burden of return to investors which is only done if the company is experiencing a profit. If the asset management is carried out properly, the company will be able to pay the capital burden it has, so that sourced from debt or own capital, the source of capital it gets will not affect the company's financial performance in generating profit.

**e. T test (partial) Hypothesis 5 Ratio of Sales to Total Assets (X5) to Financial Performance (Y)**

The t-statistic value or t-count X5 is 4.205017, while the t-table value with a level of  $\alpha = 5\%$ ,  $df (n-k) = 19$ , the t-table value is 2.093. Thus, t statistic  $4.205017 > t\text{-table } 2.093$  and a probability value of  $0.0006 < 0.05$ , then  $H_1$  is rejected, so it can be concluded that the hypothesis of the independent variable X5 has a positive and significant effect on the dependent variable, namely the Financial Performance (Y) of the Cement company listed on the Indonesia Stock Exchange for the period 2016-2019.

This ratio illustrates the number of assets that are capable of generating a sales level for the company, so the higher this ratio indicates the higher the level of sales resulting from the processing of its assets. The higher the level of sales which is not followed by high expenses to be paid will increase net income. resulting from. So that the higher the ratio of sales to total assets, the higher the financial performance in generating profits.

## CONCLUSION

Based on the analysis that has been done, there are several conclusions in this study.

- a. Based on the results of the calculation and analysis of the Z-Score criteria in cement companies in Indonesia, it can be concluded that there is no cement company whose company finances are in a healthy state. One company that is prone to bankruptcy (gray zone) is PT Indocement Tunggal Prakarsa Tbk. Meanwhile, PT Semen Indonesia Tbk, PT Wijaya Karya Beton Tbk, PT Semen Baturaja Tbk, PT Solusi Bangun Indonesia Tbk., And PT Waskita Beton Precast based on the Z-Score criteria went bankrupt.
- b. Working Capital to Total Assets Ratio, retained earnings to total assets ratio, EBIT to Total Assets Ratio, Market Value of Share to Book Value of Liability Ratio and Sales to Total Assets Ratio simultaneously affect the financial performance of cement companies listed on the IDX for the 2014 period -2019.
- c. The working capital to total assets ratio affects the financial performance of cement companies listed on the IDX for the 2014-2019 period

- d. The ratio of retained earning to total assets has no effect on the financial performance of cement companies listed on the IDX for the 2014-2019 period
- e. The EBIT to Total Assets ratio has an effect on the Financial Performance of Cement Companies listed on the IDX for the 2014-2019 Period
- f. The Market Value of Share to Book Value of Liability ratio has an effect on the financial performance of cement companies listed on the IDX for the 2014-2019 period
- g. The ratio of Sales to Total Assets affects the financial performance of cement companies listed on the IDX for the 2014-2019 period.

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