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Financial Ratio to Financial Distress conditions on Indonesia Stock Exchange Listed Companies

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Abstract

This study points to discover out whether monetary proportions have an impact on budgetary trouble conditions in chemical sub-sector manufacturing companies recorded on the Indonesian Stock Exchange (IDX) for the year 2014-2017. To decide the test in this study utilized a non-probability sampling strategy, specifically purposive testing by setting up a few criteria that must be met to be utilized as a test. The investigation strategy utilized is different straight relapse investigation utilizing the assistance of SPSS Form 25. The comes about appeared that there are as it were two monetary proportions that have a noteworthy impact on monetary trouble, to be specific the proportion of working capital to add up to resources and gaining some time recently intrigued and charges to add up to resources. Whereas the other four proportions have no critical impact on monetary distress.

Keywords: Financial Distress, Financial Ratio, Altman Model, Cash Flow.

INTRODUCTION

Financial distress cause the company to be unable to meet its obligations at maturity. One of the characteristics of the stock companies that are said to experience financial distress as a company that suffered losses for 03 consecutive years or companies that have a negative side of earnings per share (EPS) value. Companies that can't cope with the conditions of financial distress can end in bankruptcy. Therefore, it is very important for companies to make financial distress prediction.

One way that can be done to predict financial distress conditions is to do a financial ratio analysis. In this study, researchers used the Altman model ratio consisting of five ratios, namely, "the ratio of working capital to total assets, retained earnings to total assets, earnings before interest and taxes to total assets, market value of equity to book value of total liabilities and sales to total assets and coupled with cash flow ratio, namely, cash flow ratio from operating to total assets". The selection of these six ratios is considered to already represent the types of ratios that exist.

LIBRARY REVIEW

Financial Statements

A financial statement is a statement that explains the current situation of the financial statements or in a period of uncertainty (Cashmere, 2016:7). Financial statements aim to make available information on the financial condition, financial performance & cash flow condition that are beneficial to the company and other interested parties (PSAK, Number 1 revision 2015).

Financial Ratio Analysis

Financial ratio analysis is an analysis conducted by linking various estimates in financial statements in the form of financial ratios (Hery, 2016: 139). There are

several types of financial ratios, including

    a. Liquidity Ratio
    b. Profitability Ratio
    c. Financial Leverage Ratio
    d. Sales Growth Ratio
    e. Activity Ratio
    f. Cash Flow

Financial Distress

Financial distress is a company's condition in which the company experiences a lot of financial difficulties that cause the company to be unable to meet its obligations at maturity. According to Rudianto (2013: 253) financial distress prediction information is useful to help management in making improvements and prevention to avoid financial distress conditions. In addition, it is useful to provide a basic introduction of the company's ability to manage investments invested by external parties.

Factors Causing Financial Distress

According to Demodaran, the factors that cause financial distress can be divided into two, namely internal factors & external factors. Internal factors in the form of cash flow difficulties & the amount of debt the company has. While external factors can be caused by government policies that can add to the business burden borne by the company, such as increased tax rates and increases in borrowing rates.
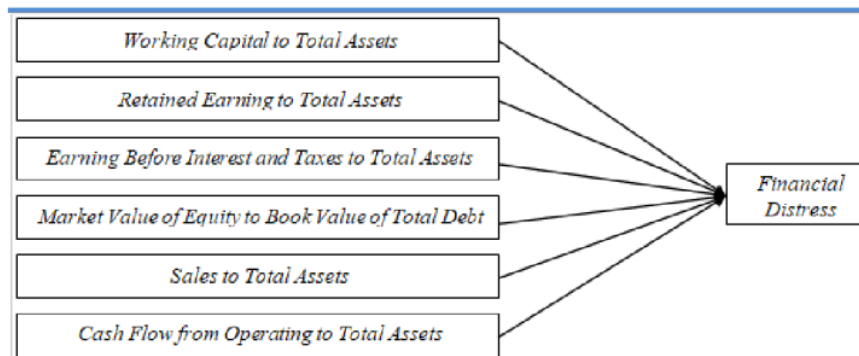

Figure 1. Research framework

Hypothesis

H1: Working Capital to Total Asset (WCTA) has a significant effect on the financial distress condition of the company.

H2: Retained Earnings to Total Asset (RETA) has a significant effect on the financial distress condition of the company.

H3: Earnings Before Interest and Tax to Total Asset (EBITTA) has a significant effect on the financial distress condition of the company.

H4: Market Value of Equity To book Value of Total Liability (MVTL) has a significant effect on the financial distress condition of the company.

H5: Sales to Total Asset (SETA) has a significant impact on the financial distress condition of the company.

H6: Cash Flow from Operations to Total Asset (CFOTA) has a significant effect on the financial distress condition of the company.

RESEARCH METHODS

Dependent Variables

The dependent variable in this research is a financial distress. The company is said to experience financial distress if it has a negative EPS value. Therefore, to measure the value of this dependent variable using dummy variables, i.e. by looking at the company's EPS value. Dummy variables are worth 1 if the company experiences a negative EPS value and is worth 0 if the company's EPS value is positive.

Independent Variables

"The independent variables in the study used the Altman model ratio as well as coupled with the cash flow ratio.

a. The Working Capital to Total Assets Ratio (WCTA) indicates a company's ability to generate net working capital from its total assets.

b. Retained Earnings to Total Assets (RETA) ratio, indicating a company's ability

$$WCTA = \frac{\text{Working Capital}}{\text{Total Assets}}$$

to generate profits, as retained earnings after deducting expenses

$$RETA = \frac{\text{Retained Earning}}{\text{Total Assets}}$$

c. The Earning Before Interest and Taxes to Total Assets (EBITTA) ratio measures a company's ability to generate profits from the assets it uses.

$$EBITTA = \frac{\text{Earning Before Interest and Taxes}}{\text{Total Assets}}$$

d. The Market Value of Equity to Book Value of Total Liabilities (MVTL) ratio demonstrates a company's ability to meet its obligations from its own capital market value.

$$MVTL = \frac{\text{Market Value of Equity}}{\text{Total Liabilities}}$$

e. Ratio Sales to Total Assets (SETA), shows the company's ability to generate sales from assets it owns.

$$SETA = \frac{\text{Sales}}{\text{Total Assets}}$$

f. The Cash Flow from Operating to Total Assets (CFOTA) ratio demonstrates a company's ability to generate its cash flow through its assets".

$$CFOTA = \frac{\text{Cash Flow from Operating}}{\text{Total Assets}}$$

Types and Sources of Data

The data used in this research is secondary data reported by companies are listed on the Stock Exchange of Indonesia. While the data source used in this study is data derived from the financial statements of each sample company during the research period, namely from 2014-2017.

Population and Sample

The population in this study is the same as the chemical sub-sector manufacturing companies listed in the IDX from 2014-2017 with a population of 13 companies. While the selection of samples in this study was conducted with purposive sampling techniques that are based on certain criteria so that 9 companies that meet the criteria to be sampled.

Data Analysis Tools

The tool used in this study is the SPSS version 25 program with the following statistical tests:

1. Multiple linear regression analysis with classical assumption tests:
    a. Normality Test
    b. Heteroskedasticity Test
    c. Autocorrelation Test
    d. Multicollinearity Test
2. Test T (Partial)
3. Test F (Simultaneous)

Test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		36
Normal Parametersa,b	Mean	,0000000
	Std. Deviation	,25125300
Asymp. Sig. (2-tailed)		,200c,d
Test distribution is Normal.		

Source: Processed Data, 2019
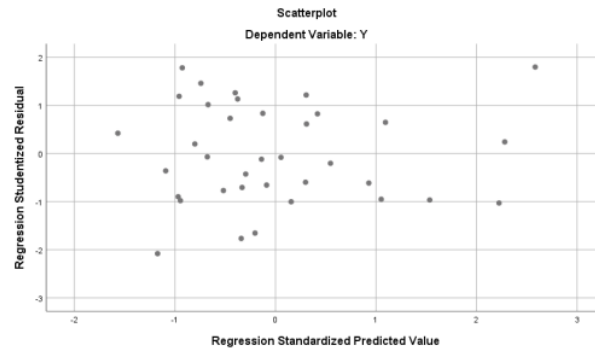
Source: Processed Data

Figure 1 Scatterplot Graphic

RESULTS AND DISCUSSIONS

Normality Test Results

"The normality test aims to test whether the regression model used is normal. The basis of decision-making in this test is when the value of asymp. sig. (2-tailed) > 0.05 then normal distributed data. Based on the table above, known asymp values. sig. (2-tailed) by (0.200 > 0.05) it can be concluded that the data is normal distribution.

Heteroskedasticity Test Results

Based on figure 2, it is known that the dots do not form a clear pattern and spread above and below the number 0 - Y axis. It can be concluded that there is no heteroskedasticity in the regression model.

Multicollinearity Test Results

Dasar decision making in this test is if the tolerance value > 0.10 and the value of VIF < 10.00 then there is no multicollinearity.

Based on the results of table 2, it is known that the six variables have a tolerance value of > 0.10 while the VIF value of the six variables < 10.00 it can be concluded that there are no symptoms of multicollinearity in the regression model".

Test

Unstandardized Coefficients			Standardized Coefficients Beta	T	Sig.	Collinearity Statistics	
Model	B	Std. Error				Tolerance	VIF
1 (Constant)	.734	.125		5,	.000		
WCTA	-.957	.255	-.496	-	.001	.602	1.662
RETA	-4.154	1.531	-.571	-	.872	.238	4.202
EBITTA	-.168	1.033	-.030	-	.011	.310	3.226
MVTL	.023	.023	.155	1,	.320	.448	2.231
SETA	-.065	.149	-.051	-	.664	.779	1.284
CFOTA	,123	,744	,021	,	,869	,679	1,472

Table 3:- Autocorrelation

	Unstandardized Residual
Test Valuea	-,00050
Cases < Test Value	18
Cases >= Test Value	18
Total Cases	36
Number of Runs	13
Z	-1,860
Asymp. Sig. (2-tailed)	,063

Source: Processed Data, 2021

Autocorrelation Test

Based on the desired results of the Run Test it may be known that the value of asymp. sig. (2-tailed) by (0.063 > 0.05) it can be identified that there is no autocorrelation symptoms in regression models.

Test T (Partial)

The T test aims to determine the presence of significant or not influence of each independent variable on the dependent variable.

The basis of decision making in this test is that if t calculates < t table with a significance value smaller than 0.05 then it means that there is a significant influence on financial distress.

Based on the results of table 4, it is known that there are only two ratios that affect financial distress, namely the ratio of WCTA with t calculated of -3,747 < t table 2.045 and the value of significance of -3,747 < t table 2.045 and the value of significance of 0.001 < 0.05, and EBITTA ratio to t calculated of -0.163 < t table 2.045 and significance value of 0.011 < 0.05. While the other four ratios, namely the ratio of RETA, MVTL, SETA and CFOTA have a significance value greater than 0.05 which means that the four ratios have no significant effect on financial distress.

Table 4. t- Test (Partial)

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	,734	,125		5,894	,000		
	WCTA	-,957	,255	-,496	-3,747	,001	,602	1,662
	RETA	-4,154	1,531	-,571	-2,713	,872	,238	4,202
	EBITTA	-,168	1,033	-,030	-,163	,011	,310	3,226
	MVTL	,023	,023	,155	1,012	,320	,448	2,231
	SETA	-,065	,149	-,051	-,438	,664	,779	1,284
	CFOTA	,123	,744	,021	,166	,869	,679	1,472

Source: Processed Data, 2021

Table 5. Test F

	Model Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	5,013	6	,835	10,966	,000b
Residual	2,209	29	,076		
Total	7,222	35			

Source: Processed Data, 2021

Test F (Simultaneous)

Based on the results of table 5, it is known that tilapia F calculated by 10,966 greater than F table 2.42 with a significance value of 0.000 it can be concluded that the ratio of WCTA, RETA, EBITTA, MVTL, SETA and CFOTA simultaneously has a significant effect on financial distress.

Conclusion

Based on research that has been done through several tests that have been described earlier, it can be inferred from the six ratios used, namely the ratio of WCTA, RETA, EBITTA, MVTL, SETA and CFOTA there are only two ratio that affect financial distress,namely the ratio of WCTA to t calculates -3,747 < t table 2.045 and significance value of 0.001 < 0.05, and EBITTA ratio with t calculate of -0.163 < t table 2.045 and significance value of 0.011 < 0.05. While the other four ratios, namely the ratio of RETA, MVTL, SETA and CFOTA have a significance value greater than 0.05 which means that the four ratios have no significant effect on the financial distress.

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