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Original Research Article

The Effect of Return on Equity and Total Asset Turnover on the Prediction of Financial Distress with Debt to Equity Ratio as Moderating Variable

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Abstract: Several factors that affect financial distress are return on equity, debt to equity ratio, and total asset turnover. There is a decrease in return on equity and total asset turnover, as well as an increase in the debt to equity ratio which is not necessarily followed by the occurrence of financial distress. The purpose of this study was to examine and analyze the effect of ROE and TATO on predictions of financial distress conditions with DER as a moderating variable in basic industry and chemicals companies listed on the Indonesia Stock Exchange from 2013 to 2017. The theory used was the return on equity, total asset turnover, debt to equity ratio, and financial distress.A quantitative research method was used in the study. This study's population consisted of 60 basic industry and chemical companies and there were 27 companies served as the research sample. The results of the study indicate that ROE affects predictions of financial distress conditions in basic industry and chemicals companies listed on the Indonesia Stock Exchange for the 2013-2017 period. Meanwhile, TATO does not affect the prediction of financial distress conditions in basic industry and chemicals companies listed on the Indonesia Stock Exchange for the 2013-2017 period. The effect of ROE on Financial Distress is not moderated by DER, but the effect of TATO on Financial Distress is moderated by DER.

Keywords: ROE,TATO, DER, Financial Distress.

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INTRODUCTION

Companies that experience bankruptcy usually start with financial distress.However, companies in financial distress will not inevitably end up in bankruptcy because this is dependent on the company's capacity to prevent and overcome financial distress conditions that would lead to bankruptcy.The Altman Z-Score model, which has been tested and proven by various studies and exhibits substantial results, is one of the models that can be used to analyze the company's financial distress problems.

The researcher chose a sample of basic industry and chemicals companies because it is expected that the movement of the basic industry and chemicals sector will continue to weaken due to pressure from the Rupiah's instability amid the global economy, where companies in this sector are still heavily reliant on imports (www.vibiznews.com). Furthermore, numerous economic phenomena had a significant impact on the Indonesian economy throughout the research period, such as the rise in global oil prices and the worldwide economic crisis or inflation.So, it is hoped that the results can describe the actual conditions and test the consistency of prior study results.

Error prediction on the future continuity of a company's activities can be fatal, resulting in the loss of income or investment in a company. Companies can use financial statement analysis techniques to monitor financial situations to avoid and reduce the possibility of bankruptcy. Financial

statement analysis is an essential technique for obtaining information about a company's financial condition and the results that have been achieved as a consequence of the company's determined and implemented strategy. The condition and development of financial distress can be identified by analyzing the company's financial statements.Financial ratios are a model that is frequently used in assessing financial statements.

According to Brahmana (2007) and Hidayat (2013), financial distress occurs when a company is unable to manage and maintain the stability of its financial performance, which results from a failure to market its products, resulting in a drop in sales. As a result of lower revenue from sales, the company may incur operating losses and net losses for the current year. Furthermore, the losses will result in a capital deficiency owing to a drop in the value of retained earnings needed to make dividend payments to shareholders, resulting in a deficiency in total equity.If this continues, it does not rule out the potential that the company's total liabilities would one day exceed the total assets of the company. The conditions mentioned above are associated with a company suffering financial distress, and if the company is unable to overcome the conditions described above, the company will lead to bankruptcy.

LITERATURE REVIEW

According to Syamsuddin (2011: 119), if financial expenses rise, earnings before interest and taxes (EBIT) must rise as well to compensate. As a result, growing financial leverage increases the risk that the company must bear since the increased financial burden forces the company to maintain a greater level of EBIT. According to Sudana (2011: 160), the higher the leverage factor, the greater the ROE range, and therefore the company's financial risk. In other words, if economic conditions change, the variability of net income for companies that use a lot of debt is higher than for companies that use less debt. According to Tampubolon (2014: 55), corporate failure is induced by several factors, including a very low rate of return (poor rate of return), guaranteed assets against debt (technical insolvency), and bankruptcy (bankrupt).

According to Hanafi and Halim (2016: 81), a high ratio typically implies good management, whereas a low ratio should urge management to reevaluate its strategy, marketing, and capital expenditures. If this ratio is low, the company is not generating enough sales volume to cover its asset investment. This demonstrates poor performance, which can have an impact on the company's finances and increase the probability of bankruptcy. The activity ratio, according to Rodoni and Ali (2014: 192), indicates how effectively a company uses its resources (capital assets). The use of corporate resources to generate sales, on the other hand, if low, indicates the organization's inefficiency in utilizing resources, implying that the company's performance is low. According to Sudana (2011: 22), the higher the total asset turnover ratio, the more effective the company's management of all assets.

According to Sjahrial (2008:202), in general, the possibility of financial distress grows with the usage of debt. This means that the more debt is used, the higher the burden of interest costs, and the greater the probability that a decrease in income will cause financial distress. According to Rodoni and Ali (2014: 191), the higher the company's debt, the higher the possibility that the company would be unable to fulfill its obligations. In other words, more debt exposes the company to the risk of insolvency and financial distress.According to Fahmi (2016:169), financial distress begins with the inability to fulfill obligations, especially short-term obligations including liquidity obligations as well as obligations in the solvency category.

METHODOLOGY

According to Sugiyono (2016: 215), a population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions.This study's population consisted of 60 basic industry and chemicals companies listed on the Indonesia Stock Exchange between 2013 and 2017. The total number of sample data utilized in this study was 135 samples drawn from a total sample of 27 companies, multiplied by a 5-year research period.

According to Ghozali and Latan (2015:5), Partial Least Squares (PLS) is a powerful analytical method that is also known as soft modeling because it eliminates the assumptions of OLS (Ordinary Least Squares) regression, such as the data must be normally distributed in a multivariate manner and there is no problem of multicollinearity between exogenous variables. PLS has the advantage of not requiring a large number of samples and not requiring data to be normally distributed.

RESULTS AND DISCUSSION

This study uses the financial statements of basic industry and chemicals companies listed on the Indonesia Stock Exchange from 2013 to 2017. Descriptive statistics provide an overview or description of a data set based on the average value (mean), standard deviation, maximum value, and minimum value of the independent and dependent variables. The following is general statistical data

derived from all of the data used:

Table IV.1. Descriptive Statistics

Indikator:	Korelasi Indikator	File Raw			
	Rata-Rata	Median	Minimu...	Maksimum	Standar Deviasi
ROE	97.504	81.000	1.000	603.000	86.325
TATO	880.333	804.000	4.000	2,104.000	476.350
DER	857.126	609.000	4.000	6,341.000	929.383
FD	3,802.200	2,887.0...	34.000	15,762.000	3,491.878

Based on the results of descriptive statistics calculations in Table 4.6., it can be explained as follows:

1. The Return on Assets variable has 135 samples, with a minimum value of 1 and a maximum value of 603. Meanwhile, the average value (mean) is 97,504, the median value is 81, and the standard deviation is 86,325.
2. The Total Asset Turnover variable has 135 samples, with a minimum value of 4 and a maximum value of 2,104. Meanwhile, the average value (mean) is 880,333, the median value is 804, and the standard deviation is 476,35.
3. The Debt To Equity Ratio variable has 135 samples, with a minimum value of 4 and a maximum value of 6,341. Meanwhile, the average value (mean) is 857,126, the median value is 609, and the standard deviation is 929,383.
4. The financial Distress variable has 135 samples, with a minimum value of 34 and a maximum value of 15,762. Meanwhile, the average value (mean) is 3.802.2, the median value is 2.887, and the standard deviation is 3.491,878.

INNER MODEL

Structural model evaluation is conducted to predict the relationship between variables in the study. This evaluation will explain how much the ability of the independent variable in explaining the dependent variable or commonly known as R square. The results of the evaluation of the structural model (inner model) can be seen in Table 4.7.

Table-4.7

R Square		
	R Square	**Adjusted R Square**
Financial Distress	0,265	0,237

Table 4.7. above shows that the value of R square is 0.265 or 26.5%. This value indicates that the ability of the independent variables, namely ROE, TATO, the interaction of ROE with DER, and the interaction of TATO with DER in explaining the dependent variable, namely financial distress, is 26.5%. While the remaining 73.5% is explained by other variables not examined in this study.

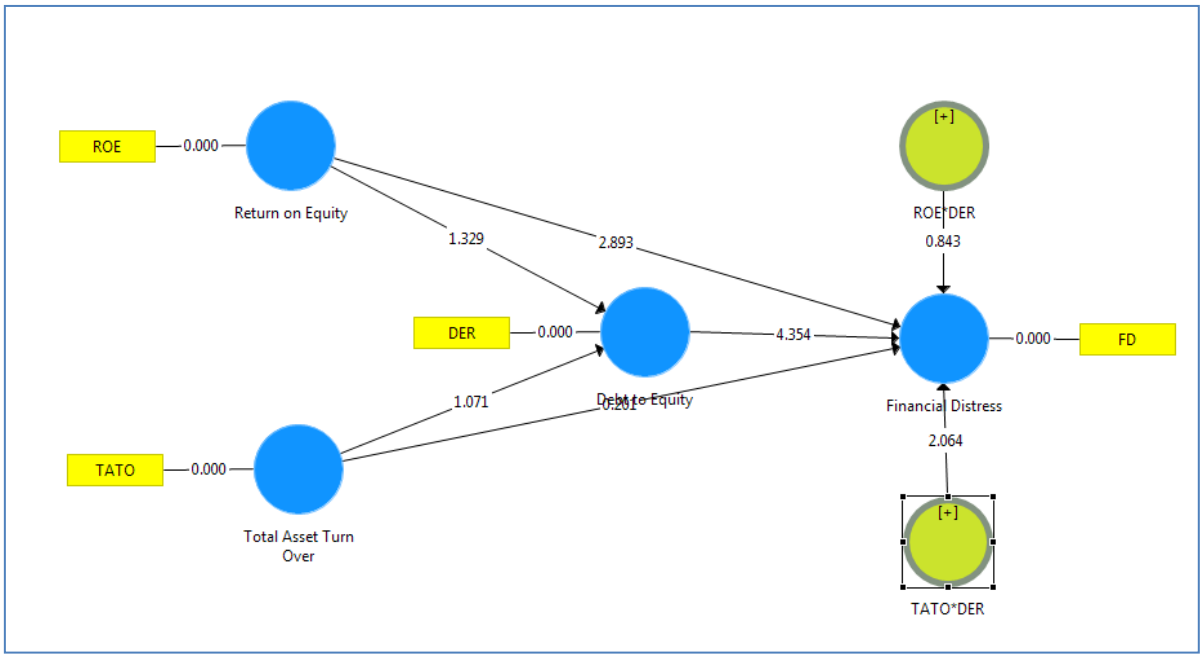

Fig-1: Path Coefficient Results

Table-IV: Path Coefficient Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (| O/STDEV |)	P Values
ROE*DER -> Financial Distress	-0,145	-0,189	0,172	0,843	**0,400**
Return on Equity -> Financial Distress	0,286	0,286	0,099	2,893	**0,004**
TATO*DER -> Financial Distress	0,188	0,195	0,091	2,064	**0,040**
Total Asset Turnover -> Financial Distress	-0,016	-0,012	0,078	0,201	**0,841**

Based on Table 4.8. above, then the equation of analysis in this study is as follows:
Financial Distress = 0,286ROE -0,016TATO – 0,364 DER – 0,145ROE*DER + 0,188TATO*DER

Based on the results of hypothesis testing and the above equation, it can be explained as follows:

1. The Effect of Return on Equity on Financial Distress
   From the results of hypothesis testing, the T statistic value of 2,893 is greater than 1,96 (2,893 > 1,96) and the P-value of 0,004 is smaller than 0,05 (0,004 < 0,05). Based on the results of the hypothesistesting, H_1 is accepted, which means that return on equity affects financial distress in basic industry and chemicals companies listed on the Indonesia Stock Exchange.
2. The Effect of Total Asset Turnover on Financial Distress
   From the results of hypothesis testing, the T statistic value of 0,201 is smaller than 1,96 (0,201 < 1,96) and the P-value of 0,841 is greater than 0,05 (00,841 > 0,05). Based on the results of the hypothesis testing, H_2 is rejected, which means that TATO does not affect financial distress in basic industry and chemicals companies listed on the Indonesia Stock Exchange.
3. The Effect of ROE on Financial Distress with DER as Moderating Variable
   From the results of hypothesis testing, the T statistic value of 0,843 is smaller than 1,96 (0,843 < 1,96) and the P-value of 0,400 is greater than 0,05 (0,400 > 0,05). Based on the results of the hypothesis testing, H_3 is rejected, which means that the influence of ROE on Financial Distress is not moderated by DER on basic industry and chemicals companies listed on the Indonesia Stock Exchange. The effect of DER on Financial Distress has a T statistic of 4,354 greater than 1,96 (4,354 > 1,96) and a P-value of 0,000 less than 0,05 (0,00 < 0,05), thus indicating that DER affects Financial Distress.
4. The Effect of TATO on Financial Distress with DER as Moderating Variable
   From the results of hypothesis testing, the T statistic value of 2,064 is greater than 1,96 (2,064 > 1,96) and the P-value of 0,040 is smaller than 0,05 (0,04 < 0,05). Based on the results of the hypothesis testing, H_4 is accepted, which means that the effect of TATO on Financial Distress is moderated by DER on basic industry and chemicals companies listed on the Indonesia Stock Exchange. The effect of DER on Financial Distress has a T statistic of 4,354 greater than 1,96 (4,354 > 1,96) and a P-value of 0,000 less than 0,05 (0,00 < 0,05), indicating that DER has an effect on Financial Distress.

The Effect of Return on Equity on Financial Distress

These results indicate that ROE affects the prediction of financial distress conditions in basic industry and chemicals companies listed on the IDX from 2013 to 2017 because companies experiencing major financial distress are affected by ROE. The results of this study are following the theory of Sudana (2011: 160) which states that a greater ROE range increases the company's financial risk. The results of this study are consistent with the findings of Widati and Pratama (2015), who found a significant positive effect between return on equity (ROE) and financial distress, with a high ROE percentage indicating that the company is not in financial distress. According to the results of this study, partially, ROE has a significant effect on financial distress in basic industry and chemicals companies listed on the IDX from 2013 to 2017, because profit levels affect both large and small companies.

The Effect of Total Asset Turnover on Financial Distress

The results of this study are not following the theory of Hanafi and Halim (2013:81) which states that if the TATO ratio is low, then it shows poor performance which can affect the company's finances and trigger the probability of bankruptcy. The results of this study are not in line with the research of Yudiawati and Indriani (2016), which states that TATO affects financial distress, where the higher the level of TATO, the less likely the occurrence of financial distress in a company. Based on the results of this study, it shows that, partially, TATO has no significant effect on financial distress in basic industry and chemicals companies listed on the IDX from 2013 to 2017.

The Effect of Return on Equity on Financial Distress with Debt to Equity Ratio as a Moderating Variable

The results of this study are not following the theory of Sjahrial (2008), which states that the possibility of financial distress increases with the increasing use of debt. The results of this study are not in line with research by Noviandri (2014), which states that DER affects financial distress, where a greater DER value can cause financial distress. Based on the results of this study, it shows that, partially, DER has a significant effect on financial distress in basic industry and chemicals companies listed on the IDX from 2013 to 2017 because high levels of debt can increase the risk of companies being in financial distress.

The Effect of Total Asset Turnover on Financial Distress with Debt to Equity Ratio as a Moderating Variable

The results of this study are following the theory of Hanafi and Halim (2013:81) which states that if the TATO ratio is low, then it shows poor performance which can affect the company's finances and trigger the probability of bankruptcy. The results of this study are in line with the research of Yudiawati and Indriani (2016), which states that TATO affects financial distress, where the higher the level of TATO, the less likely the occurrence of financial distress in a company.

CONCLUSION

Based on the results of research and discussion that have been stated in the previous chapter, the conclusions that can be drawn in this study are as follows:

1. Return on Equity has an effect on Financial Distress in basic industry and chemicals companies listed on the Indonesia Stock Exchange.
2. Total Asset Turnover has no effect on Financial Distress in basic industry and chemicals companies listed on the Indonesia Stock Exchange.
3. The effect of Return on Equity on Financial Distress is not moderated by the Debt to Equity Ratio on basic industry and chemicals companies listed on the Indonesia Stock Exchange.
4. The effect of Total Asset Turnover on Financial Distress is moderated by the Debt to Equity Ratio on basic industry and chemicals companies listed on the Indonesia Stock Exchange.

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