

The effect of current ratio, net profit margin and debt to equity ratio on financial distress

Dewinda Yanuaridha Krisvarahma Purwanto^{1*}, Irfan Yoga Pardistya²

Fakultas Ekonomi dan Bisnis Universitas Singaperbangsa, Karawang.

*Email: yanuaridha99@gmail.com

Abstract

This study aims to determine the effect of CR (Current Ratio), NPM (Net Profit Margin) and DER (Debt to Equity Ratio) on Financial Distress in Retail Subsector companies listed on the Indonesia Stock Exchange for the period 2014-2019. The method of analysis used in this research is multiple linear regression analysis method. Financial Distress is measured using the Altman Z-Score approach. The population used in this study is the retail subsector companies listed on the Indonesian Stock Exchange for the period 2014-2019. The sample used in this study were 13 companies which were determined using purposive sampling method. The results of this study indicate that; 1) Partially CR (Current Ratio) and NPM (Net Profit Margin) have a significant positive effect on Financial Distress in Retail Subsector companies listed on the Indonesia Stock Exchange for the period 2014-2019. 2). DER (Debt to Equity Ratio) partially has a significant negative effect on Financial Distress in Retail Subsector companies listed on the Indonesia Stock Exchange for the period 2014-2019. 3) CR (Current Ratio), NPM (Net Profit Margin) and DER (Debt to Equity Ratio) simultaneously affect financial distress in retail subsector companies listed on the Indonesia Stock Exchange for the period 2014-2019.

Keywords: Current ratio; net profit margin; debt to equity; financial distress

PRELIMINARY

Financial distress is a condition in which a company's operating cash flow is inadequate to pay off current obligations (such as trade payables or interest expense) and the company is forced to take corrective action. (Hapsari, 2012). This study uses the Altman Z-Score method, because this method is able to predict financial difficulties or bankruptcy with the highest level of accuracy, namely 95% (S. Sean and Viriany, 2016).

As a result of shifting consumer behavior Some retail companies are forced to close several of their outlets or stores that are scattered in various parts of Indonesia because the company is unable to compete with the presence of e-commerce. This results in the possibility of a company experiencing bankruptcy that begins with financial difficulties or commonly referred to as financial distress. Bankruptcy of a company can be seen and measured through its financial statements. A company can be categorized as experiencing financial distress (financial difficulties) if the company has financial performance that shows negative operating profit, negative net income, negative book value of equity, and the company conducts a merger. The prediction of the company's financial distress condition is very important to be done to obtain early signs of bankruptcy as part of an early warning system for management. When viewed from the financial condition, there are 3 conditions that cause financial distress, namely the factor of capital inadequacy, the amount of debt burden, and the condition of companies that experience losses that must be maintained in balance because these three factors are interrelated so as to avoid bankruptcy (Rodoni and Ali, 2010) in Surya Gandi AS, (2019).

According to Kasmir (2015) Liquidity ratios are ratios that illustrate the company's ability to meet obligations (short-term debt). The liquidity ratio in this study is proxied by the current ratio. Current ratio is used to measure the company's ability to meet its obligations that are due soon (Wiagustini, 2014: 87). Current ratio variable was chosen in this study to analyze how much influence the availability of current assets to meet current liabilities as a determinant of the risk of financial distress. Research conducted by Damayanti et al (2017) shows the current ratio has a negative influence on financial distress, because if the condition of the company is liquid, the company is able to finance its short-term obligations so as to avoid financial distress. Research conducted by Dihin Septyanto and Nadia Figrita Welandasari (2019) that Current Ratio has a positive and partially significant effect on Financial Distress, because even though the company has sufficient inventory, it seems that the inventory cannot be easily sold or used as cash because the product is absorbed in The market is not so good that the company does not have enough money to pay short-term obligations. The results of other studies conducted by Alfinda Rohmadini, et al (2018) stated that Current Ratio has a partial and simultaneous effect on Financial Distress. Liquidity does not have a significant effect on Financial Distress because there is no significant difference between a company's liquidity that improves conditions of financial difficulty and a company that does not increase financial difficulties.

Profitability Ratios are proxied into Net Profit Margins. Net Profit Margin is a ratio of net profit to total sales, showing the level of net profit that can be obtained from each sales rupiah. The greater the NPM, the better the net profit gained by the company (Robin Haryadi, 2013: 87) in Aly Jaya (2017). Based on the results of research conducted by Silalahi et al. (2018) shows that variable leverage ratio, profitability ratio and firm size simultaneously have a negative effect on financial distress. Other research conducted by rikah (2016) in Net Profit Margin has a significant positive effect in predicting Financial Distress. According to him, with a high value of net profit margin, the results of profit sharing will also be high, while to pay the company's obligations the portion will be smaller, this can result in the company experiencing financial distress. Thus the net profit margin has a positive effect in predicting financial distress in the company. Another study conducted by Aly Jaya (2017) that profitability proxied by Net Profit Margin affects financial distress. According to him, the higher the profitability, the possibility of Financial distress will be lower and otherwise.

PSAK No. 1 presentation of Financial Statements Part III illustrates the application of paragraphs 132 and 133 for non-financial entity entities, the ratio of debt to capital is calculated by net debt (total debt) divided by adjusted capital, where adjusted capital consists of all components of equity. The leverage ratio measures the extent to which a company's assets are financed by debt (Kasmir, 2015: 113).

The leverage ratio in this study is proxied by the debt to equity ratio (DER). DER compares long-term debt with own capital to find out the use of long-term debt compared to own capital Wiagustini in Ni Komang Utami GD (2016) The DER variable was chosen in this study to analyze how much influence the total debt has on company equity as a determinant of the risk of financial distress. Research conducted by Ardian et al (2017) results that Debt to Equity Ratio has a positive and significant effect on financial distress conditions, so that the higher the level of corporate debt financed by own capital, the higher the possibility of financial distress to occur. Another study conducted by Srikalimah (2017) gives the result that Debt to Equity Ratio has a low and not significant effect in predicting Financial Distress.

METHOD

The research method, the author intends to collect data and observe carefully about certain aspects that are closely related to the problem under study so that data will be obtained that support the preparation of research reports. In the preparation of this thesis the method used in this study uses the quantitative methods with descriptive analysis and verification analysis approaches.

In this study, the population used is the financial statements of retail subsector companies listed on the Indonesia Stock Exchange from 2014 to 2019. The sampling technique used in this study was purposive sampling. Purposive sampling is a sampling technique with certain considerations (Sugiyono, 2013: 122). The reason for selecting samples by using purposive sampling is because not all samples have criteria that match those will be processed by the author, therefore the authors chose a purposive sampling technique by setting certain criteria. These criteria are as follows (1) Subsector company Retail which were successively listed on the IDX for the 2014-2019 period. (2) Subsector company Retail the financial statements of which are published in full from 2014 to 2019 by the Indonesia Stock Exchange website (www.idx.co.id). The sample used in this study were 13 companies of retail subsector companies listed on the Indonesia Stock Exchange from 2014 to 2019.

The approach used in this research is descriptive approach because this approach aims to present a structured and factual description of the relationship between the variables studied. According to Sugiyono (2016:53) the descriptive approach is: "Descriptive research is research conducted to determine the existence of an independent variable either on only one or more variables without making comparisons or linking with other variables (the independent variable is a stand-alone variable, not an independent because if the independent is always paired with the dependent variable)".

In this study, verification analysis aims to find out the results of research related to the effect of Current Ratio, Net Profit Margin and Debt to Equity Ratio on Financial Distress using multiple regression analysis.

RESULTS AND DISCUSSION

Descriptive statistical analysis results

Descriptive statistical analysis is part of data analysis which serves to provide an overview of the variables in this study. Descriptive statistics in this study refer to the minimum value, maximum value, average value (mean), and standard deviation. The variables in this study include the variables Current Ratio, Net Profit Margin and Debt to Equity Ratio. The results of descriptive data processing can be seen in the table below:

Multiple linear regression analysis

This multiple linear regression test aims to calculate the influence of two or more independent variables on one dependent variable and predict the dependent variable by using two or more independent variables (Rochaety, et al., 2019: 117). In this study, multiple linear regression analysis is used to determine the effect of Current ratio (CR), Net Profit Margin (NPM) and Debt Tto Equity Ratio (DER) on Financial Distress. The results of linear regression analysis in this study can be seen in the table below:

Table 1. Multiple linear regression analysis

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.534	.360		4.260	.000
1 CR	1.445	.170	.415	8.484	.000
NPM	31.055	2.205	.570	14.083	.000
DER	-.597	.088	-.321	-6.796	.000

a. Dependent Variable: FINANCIAL_DISTRESS

Based on the results of regression analysis as shown in table 4.22 above, it can be developed through multiple regression model equations, here are the equations:

$$FD = 1,534 + 1,445CR + 31,055NPM + (-0,597DER) + e$$

Knowing:

Y : *Financial Distress*

α : constant

X₁ : *Current Ratio*

X₂ : *Net Profit Margin*

X₃ : *Debt to Equity Ratio*

$\beta_1, \beta_2, \beta_3$: Regression Coefficient

e : Disturbing Factors Outside Model / Error Level

From the above formula it can be concluded as follows:

The constant value of 1.534 with the direction of the positive relationship indicates that when Current Ratio, Net Profit Margin and Debt to Equity Ratio is zero then Financial Distress increased by 1.534 or by 1.53%;

Regression coefficient Current Ratio (CR) amounting to 1.445 with a positive direction indicates that every increase Current Ratio (CR) it will be followed by an increase Financial Distress 1.445 or 1.45% with the assumption that other independent variables are considered constant;

Regression coefficient Net Profit Margin (NPM) amounted to 31.055 with the direction of the positive relationship indicates that each increase Net Profit Margin (NPM) it will be followed by an increase Financial Distress 31.055 or 31.06% with the assumption that other independent variables are considered constant; and

Regression coefficient Debt to Equity Ratio (DER) amounting to -0.597 with a negative relationship direction indicates that any increase Debt to Equity Ratio (DER)) it will be followed by a decrease Financial Distress of -0.597 or 59.7% with the assumption that other independent variables are considered constant.

Coefficient of determination (R²)

Coefficient of determination (R²) in essence measures how far the model's ability to explain the dependent variables. The coefficient of determination is zero and one. Small R² value means that the ability of the independent variables to explain the variation in the dependent variable is very limited. NA value close to one means that the independent variables provide almost all the information needed to predict the variation in the dependent variable (Ghozali, 2016: 95). If the coefficient of determination (R²) = 0 means that there is no relationship between the independent variable and the dependent variable, on the contrary, for the coefficient of determination (R²) = 1, there is a perfect relationship.

The influence of variable current ratio (CR) on financial distress

The results of the Influence of Variable Current Ratio (CR) on Financial Distress in this study can be seen in the table below:

Table 2. The Influence of Variable Current Ratio (CR) on Financial Distress Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.534	.360		4.260	.000
CR	1.445	.170	.415	8.484	.000

a. Dependent Variable: FINANCIAL_DISTRESS

There is a table 2 Variabel CR (X1) produces a tcount of 8.484, which means that tcount > ttable (8.484 > 2.008) and a significant level of 0.000 < 0.05, which means that H0 is rejected and H1 is accepted. So it can be said that the Current Ratio has a significant effect on financial Distress. Regression coefficient Current Ratio (CR) amounting to 1.445 with a positive direction indicates that every increase Current Ratio (CR) it will be followed by an increase Financial Distress 1.445 or 1.45% with the assumption that other independent variables are considered constant.

The results of this study are in line with research conducted by Imam Asfali (2019) in his research which states that the Current Ratio variable has a positive and significant effect on the Financial Distress variable. In addition, other research conducted by Mitha Christina G. (2018) in her research stated that the Current Ratio variable has a positive and significant effect on the Financial Distress variable.

According to Kasmir (2015: 134) The current ratio is a ratio to measure the company's ability to pay its short-term obligations or debt that is due immediately when collected as a whole. The results of this study are not in accordance with the theory, this could be due to the fact that most companies rely more on debt funding. So many companies rely on company funding to pay their short-term obligations because the company has good corporate funding, the company will not be reckless to sell or cash out its current assets to pay for company obligations. And companies experiencing financial distress must not only fulfill their short-term obligations but also have to fulfill their long-term obligations, the current ratio only calculates the company's ability to pay its short-term obligations. (Rikah, 2016).

The influence of variable net profit margin (NPM) on financial distress

The results of the influence of variable net profit margin (npm) on financial distress in this study can be seen in the table below:

Table 3. The Influence of Variable Net Profit Margin (NPM) on Financial Distress Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.534	.360		4.260	.000
NPM	31.055	2.205	.570	14.083	.000

a. Dependent Variable: FINANCIAL_DISTRESS

There is a table 3 Variabel NPM (X2) produces a tcount of 14.083, which means that tcount > ttable (14.083 > 2.008) and a significant level of 0.000 < 0.05, which means that H0 is rejected and H1 is accepted. So it can be said that the Net Profit Margin has a significant effect on *financial Distress*. Regression coefficient *Net Profit Margin (NPM)* amounted to 31.055 with the direction of the positive relationship indicates that each increase Net Profit Margin (NPM) it will be followed by an increase Financial Distress 31.055 or 31.06% with the assumption that other independent variables are considered constant.

This research result is in line with the research conducted by Rikah (2016) in her research which states that the ratio of the variable Net profit Margin (NPM) has a positive and significant effect on the Financial Distress variable. There is another research conducted by Muhammad Juhari (2018) and his research which states that the Net Profit Margin (NPM) ratio has a positive and significant effect on the Financial Distress variable.

According to Kasmir (2015: 200), say Net Profit Margin is a measure of profit by comparing the profit after interest and taxes compared to sales. A company that has high profitability means that it has a large profit, this means that the company is less likely to experience financial distress. The results of

this study are not in accordance with the theory, this could be because some companies use the net profit margin for the benefit of managers or owners of capital, the company's net profits are used to be distributed to company managers or owners of capital. With a high net profit margin value, the results of the profit sharing will also be high, while to pay the company's obligations the share will be smaller, this can cause the company to experience financial distress. (Rikah, 2016).

The influence of variable debt to equity ratio (DER) on financial distress

The results of the influence of variable debt to equity ratio (der) on financial distress in this study can be seen in the table below:

Table 4. The Influence of Variable Debt to Equity Ratio (DER) on Financial Distress Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.534	.360		4.260	.000
	DER	-.597	.088	-.321	-6.796	.000

a. Dependent Variable: FINANCIAL_DISTRESS

There is a table 4 Variabel DER (X3) returns the value tcount amounting to -6,796 which means that tcount $-6,796 < t_{table} (-6,796 < 2,008)$ and a significant level of $0,000 < 0,05$, which means that H0 rejected and H1 received. So it can be said that the Debt to Equity Ratio has a negative effect on financial Distress. Regression coefficient Debt to Equity Ratio (DER) amounting to -0.597 with a negative relationship direction indicates that any increase Debt to Equity Ratio (DER)) it will be followed by a decrease Financial Distress of -0.597 or 59.7% with the assumption that other independent variables are considered constant

This research result is in line with the research conducted by Mitha Christina Ginting (2018) in her research which states that the Debt to Equity Ratio (DER) variable has a negative and significant effect on the Financial Distress variable. As for other research conducted by Hery Wijarnato and Anik Nurhidayati (2016) in their research which states that the Debt to Equity Ratio (DER) variable has a negative and significant effect on the Financial Distress variable.

According to Kasmir (2015: 157) Debt to equity ratio is a ratio used to assess debt and equity. This ratio is found by comparing all debt, including current debt and total equity. The higher the percentage of debt to total equity, the greater the risk of the company being unable to meet its long-term obligations. However, many companies rely on long-term debt to fund company capital so that the company has the capital to run the company and to increase the company's profits. With the higher the company's long-term debt, the higher the business capital owned by the company, and the company has a lot of funds to run the company in order to gain a lot of profit. The higher the company's long-term debt (debt to equity ratio), the company will avoid financial distress. (Rikah, 2016)

The influence of variable current ratio (CR), net profit margin (NPM) and debt to equity ratio (DER) on financial distress simultaneously

The results of the influence of variable current ratio (cr), net profit margin (npm) and debt to equity ratio (der) on financial distress simultaneously in this study can be seen in the table below:

Table 5. Influence of variable current ratio (CR), net profit margin (NPM) and debt to equity ratio (DER) on financial distress simultaneously ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	215.987	3	71.962	204.942	.000 ^b
Residual	17.557	50	.351		
Total	233.444	53			

a. Dependent Variable: FINANCIAL_DISTRESS

b. Predictors: (Constant), DER, NPM, CR

Based on the results of data processing in table 5 above, obtained F_{count} amounting to 204,942 while F_{table} obtained through the F_{table} ($\alpha = 0.05$, $dk = k-1$ and $df = nk-1$) so that $\alpha = 0.05$, $dk = 3-1 = 4$

and $df = 54 - 3 - 1 = 50$ then the value is obtained. F_{table} amounting to 3,183. Then, $F_{count} > F_{table}$ ($204,942 > 3,183$) and a significant value ($sig < 0.05$) ($0,000 < 0.05$), thus H_0 rejected and H_1 received. So it can be concluded that the independent variables (CR, NPM, DER) in this study together (simultaneously) have a significant effect on the dependent variable (Financial Distress). the contribution of the influence of the independent variables (CR, NPM and DER) on the dependent variable (Financial Distress) is 92.5% or 93%. This shows that the ability to explain the independent variables, namely CR, NPM, and DER on the dependent variable (Financial Distress) which can be explained by this equation model is 92.5% or 93% while the remaining 7.5% or 7% is influenced or explained by variables or other factors not included in this research model.

This research result is in line with the research conducted by Hery Wijarnato and Anik Nurhidayati (2016) who state that the variables Current Ratio, Net profit Margin and Debt to Equity Ratio jointly influence (Simultaneously) on Financial Distress. Other research conducted by Andre Vici Adrian, et al (2017) also states that the variables Current Ratio, Net profit Margin and Debt to Equity Ratio jointly influence (Simultaneously) on Financial Distress

CONCLUSIONS

Based on the results of data analysis and discussion, it can be concluded as follows:
 The Current Ratio has increased in 2015 then decreased in 2016-2018 and has increased again in 2019 in retail subsector trading companies listed on the IDX for the 2014-2019 period;
 Net Profit Margin decreased from 2014-2018 then increased in 2019 in retail subsector trading companies listed on the IDX for the 2014-2019 period;
 Debt to Equity Ratio has decreased from 2014-2018 then experienced an increase in 2019 in retail subsector trading companies listed on the IDX for the 2014-2019 period; and
 Based on the results of hypothesis testing with the Simultaneous Test (Test F), it shows that the Current Ratio, Net profit Margin and Debt to Equity Ratio simultaneously influence the Financial Distress of retail sub-sector companies listed on the IDX in 2014-2019.

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