

# What Factors Cause Financial Difficulties in Retail Companies?

Sri Sulasmiyati\*

Department of Business Administration  
Universitas Brawijaya  
Malang, Indonesia  
\*sri\_su\_fia@ub.ac.id

**Abstract**—Retail companies are currently facing technological advancements that have resulted in a shift in how people shop from offline to online shopping. The trend of shifting public shopping at malls to shopping on online sites has resulted in many retail companies closing. This phenomenon will lead to company's financial distress. The aim of this research is to determine factors which cause the company's financial difficulties, which is represented by the ICR (Interest Coverage Ratio), variable which shows the company's ability to pay interest, owned by the retail company where listed on Indonesia Stock Exchange (IDX) period 2014-2017. This ability is influenced by several factors, both internal and external factors. The company's internal factors focus on the operational aspects of the company proxied by current ratio (CR), quick ratio (QR), debt ratio (DR), debt equity ratio (DER), and return on equity (ROE). External factors that are assumed to be the cause of companies experiencing financial difficulties are macroeconomic factors, which are measured by economic growth and inflation. The type of this research is quantitative research methods, data sources are taken from official sources that have been published and the analysis technique is logistic regression. The result of this research indicate debt ratio influences positive significantly and return on equity influences negative significantly to interest coverage ratio.

**Keywords**—retails, financial distress, operational aspects, macroeconomic factors, logistic regression

## I. INTRODUCTION

Due to the large growth of internet users in Indonesia, Bank Indonesia estimates that there are 24.7 million people who shop online [1]. Many online stores dominate the market share in Indonesia, some of them are Lazada, Tokopedia, and Bukalapak. Changes in the way people shop from conventional systems to online shopping has caused many retail stores to close. The following information are some news about the closing of large retailers in Indonesia. One of them are PT. Modern Putra Indonesia, commonly known as 711 (seven eleven), which was closed down massively with 20 outlets in 2016 and continued the following year, PT. Matahari department Store, closed its two stores in Pasaraya Blok M and Pasaraya Manggarai. GAP and Banana Republic owned by PT. Gilang Agung, PT. Mitra Adiperkasa as the owner of the Lotus and Debenhams retail stores also closed its outlets in Indonesia [2].

This phenomenon will lead to company's financial distress especially for retails company. Financial distress is a condition that is avoided by all types of companies. Companies that experience financial distress require predictions that can be used to assist company management in making decisions to improve the company's financial condition [3]. An early warning system is needed to anticipate financial distress because this model can be used as a means of identifying financial difficulties. According to Damodaran financial distress is influenced by internal and external company factors [4]. Internal factors that influence financial distress are company operations, poor corporate governance, and losses experienced by companies in operational activities. External factors that affect financial distress are uncontrollable by companies and macroeconomics, for example the rise in the composite stock price index (CSPI), economic growth, inflation, and the exchange rate [5].

Fred and Copeland stated, if the company has a large number of customers such as traders who sell to retailers, the analysis can be limited into three financial ratios to predict whether potential buyers have good credit risk or not, which are: liquidity ratios, leverage and profitability ratios [6]. One of the financial ratios used in financial distress study is the liquidity ratio. The liquidity ratio shows the company's ability to encounter its short-term responsibilities. Liquidity ratios commonly used in research are CR and QR [7-10].

In addition to the liquidity ratio, leverage ratio is also often used as an indicator of financial difficulties. Utari et al. stated leverage ratios are the ability of companies to use debt to finance investments or operational activities [11]. The leverage ratio shows the company's ability to pay short-term and long-term obligations of the company. Financial distress analysis begins with the company's inability to meet short-term obligations including liquidity obligations and liabilities in the category of solvency/leverage ratio [8]. Several studies have used the debt ratio and debt to equity ratio to measure the company's financial distress. These ratios as a ratio that shows the company's ability to meet short-term and long-term obligations [7-9].

Furthermore, profitability ratios are also used to measure the occurrence of financial distress in the company. Van Horne and Wachowicz stated, profitability ratios explain the relationship of earnings with sales and investment [12]. The

ratio used in profitability ratios is return on equity (ROE). Ayu et al. found ROE has no significant influence on financial distress [7]. Likewise, Rohmadini et al. shows the same results [9]. However, research by Assaji and Machmuddah indicate different results, which is ROE has a significant influence on financial distress [13].

Rodoni and Ali detailed, uncertain economic conditions in a country are one of the causes of financial distress [14]. Macroeconomic variables cannot be controlled by the company can result company being unable to handle its risks and consequences, so the company's plan is not going according to the plan, furthermore asset transfer can occur. External factors that are assumed to be the cause of companies experiencing financial difficulties are macroeconomic factors, which are measured by inflation and economic growth. Djumahir stated inflation will affect the price of goods that will affect the ability of people to buy goods which will further reduce the company's sales turnover [15]. Meanwhile, Sukirno stated, economic growth is indicated by the realization of an increase in real output of the production capacity of goods and services from previous years [16].

The aim of this research is to determine factors which cause the retail company having financial difficulties. Based on the background stated earlier, the research problems formulated are as follows:

- Does the current ratio significantly influence financial distress in retail companies listed on IDX for 2014-2017?
- Does the quick ratio have a significant effect on financial distress in retail companies listed on IDX for 2014-2017?
- Does the ratio of total debt to total assets (debt ratio) have a significant effect on financial distress in retail companies listed on IDX for 2014-2017?
- Does the ratio of total debt to equity (debt equity ratio) have a significant effect on financial distress in retail companies listed on IDX for 2014-2017?
- Does return on equity (ROE) have a significant effect on financial distress in retail companies listed on IDX for 2014-2017?
- Does economic growth significantly influence financial distress in retail companies listed on IDX for 2014-2017?
- Does inflation have a significant effect on financial distress in retail companies listed on IDX for 2014-2017?

**II. LITERATURE REVIEW**

Van Horne and Wachowicz explain the current ratio (CR) is the company's ability to pay short-term liabilities using current assets [12]. The higher the CR, the higher the company's capability to pay debts. Quick ratio (QR) shows the company's ability to meet short-term liabilities with the most liquid assets. This ratio serves as a complement to the current

ratio in liquidity [6]. Debt ratio (DR) shows the important part of debt funding for a company by calculating of company assets funded by debt in percentage. The higher the debt ratio, the higher the financial risk. The ratio of total debt to equity (Debt Equity Ratio) is the ratio of the ratio of total debt to equity [17].

Return on Equity (ROE) is a ratio that compares net income with equity that has been invested by shareholders in a company. This ratio shows the company's ability to generate a return on investment based on the book value of the shareholders [18].

Sukirno stated, economic growth is indicated by the realization of an increase in real output over the production capacity of goods and services from previous years [16]. According to Rodoni and Ali inflation is a process of increasing prices in general and continuously. It is measured as inflation if there is a process of continuous price increases and mutual influence of commodities needed by society [14]. ICR (Interest Coverage Ratio), variable which explain the company's ability to pay interest, Classens and Classens defines companies that experience financial distress if the company has an ICR of less than 1 (one) [19].

The hypothesis model for this study could be shown as in a figure below (fig. 1).

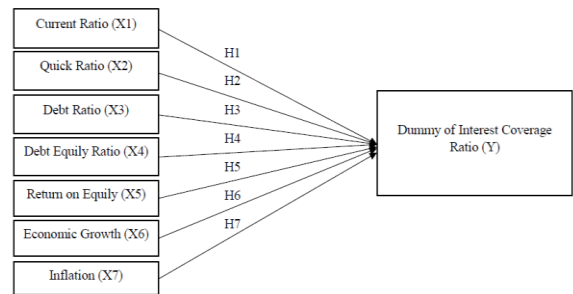


Fig. 1. Hypothesis model.

**III. METHODS**

The type of this research is a quantitative method with an explanatory research approach using logistic regression analysis [20]. The logistic regression procedure used in this study is binary logistic regression. It is called logistic regression because the independent variable is a dichotomous variable or a variable with two categories [21]. The software used to generate these equations is the SPSS version 21 program. The following is the logistic regression equation generated

$$DISTRESSED_i = \beta_0 + \beta_1CR + \beta_2QR + \beta_3DR + \beta_4DER + \beta_5ROE + \beta_5PER + \beta_5INF$$

Explanation:

- $DISTRESSED_i$  = A value of 1 for companies that experience financial distress and a value of 0 for companies that do not experience financial distress.
- $\beta_0$  = Constant
- CR = current ratio is measured as a ratio of current assets to current liabilities.

- QR = quick ratio is calculated by dividing liquid current assets by total current liabilities.
- DR = debt ratio is measured as total liabilities to total assets.
- DER = debt equity ratio is calculated by dividing total assets to equity.
- ROE = return on equity is measured as net income to equity.
- PER = economic growth is measured by the rate of economic growth
- INF = inflation is measured by the consumer price index

From 24 retail companies were listed on the IDX, researchers obtained sample of 16 companies. Data sources are taken from official website, the Indonesia Stock Exchange (IDX), specifically [www.idx.co.id](http://www.idx.co.id). The data samples were obtained from the statements of financial and annual report of the company published on its official website from 2014-2017.

**IV. RESULTS AND DISCUSSION**

The table below is a descriptive statistical table of all observational data.

**TABLE I. STATISTICS DESCRIPTIVE**

Variable	N	Min	Max	Mean	Std. Dev.
CR	68	1.19	1.403	235.06	263.81
QR	68	0.17	935.54	133.33	171.44
DR	68	1.44	1,683.44	109.29	248.47
DER	68	-151.13	1,819.24	166.92	254.38
ROE	68	-105.90	799.10	25.33	100.59
PER	68	4.94	5.19	5.08	0.10
INF	68	3.02	8.36	4.58	2.21
Valid N	68				

From table1 could be shown the data of each variable as follow. Current ratio (CR) has the lowest value of 1.19% and a highest of 1,403% with mean of 235.06% and a standard deviation (SD) of 263.81% in the time of the study. Quick ratio (QR) in all samples in that period has the lowest value of 0.17%, the highest value is 935.54%, with mean of 133.33% and a SD of 171.44%. Debt Ratio (DR) in the time of the study has the lowest value of 1.44%, the highest is 1,683.44%, with mean of 109.29% and a SD of 248.47%. Debt Equity Ratio (DER) in all samples has a worse value of -151.13%, the highest is 1,819.24% with mean of 166.92% and a SD of 254.38%. Return on Equity (ROE) in all samples has a lowest value of -105.90% and a highest is 799.10% with mean is 25.33% and a SD of 100.59%. The two variables external shows as follows: Economic Growth in all time of period of research has a lowest value of 4.94% which is occurred in 2016, a highest of 5.19% in 2017, with mean is 5.08% and a SD is 0.10%. Meanwhile inflation throughout the periods of research has the lowest of 3.02% on 2016, the highest of 8.36% on 2014, with mean of 4.58% and a SD of 2.21%.

**TABLE II. OMNIBUS TEST OF MODEL COEFFICIENT**

		Chi-Square	Df	Sig.
Step 1	Step	44.699	7	0.000
	Block	44.699	7	0.000
	Model	44.699	7	0.000

The test for the overall regression coefficient (overall model fit test) of 7 predictors is done with the omnibus test of model coefficient. It results of the test of model coefficient obtained the chi-square value (a decrease in the value of -2 log like hood) of 44,699 with a level of significance 0.00. Significance value that is less than  $\alpha$  of 0.05 indicates that there are significant influences from 7 predictors that is current ratio (CR), quick ratio (QR), debt ratio (DR), debt equity ratio (DER), return on equity (ROE), economic growth and inflation altogether can describe the incidence of financial distress in the retail company.

**TABLE III. HYPOTHESIS RESULT**

		$\beta$	S.E	Wald	df	Sig	Exp(B)
Step 1	CR	0.000	0.015	0.000	1	0.996	1.000
	QR	0.002	0.021	0.006	1	0.941	1.002
	DR	0.061	0.020	9.565	1	0.002	1.063
	DER	-0.004	0.005	0.948	1	0.330	0.963
	ROE	-.0372	0.127	8.565	1	0.003	0.689
	PER	6.075	4.306	1.991	1	0.158	434.771
	INF	-0.208	0.254	0.669	1	0.413	0.813
	Constant	-31.660	22.017	2.068	1	0.150	0.000

Nagelkerke's R Square of 0.686 shows the variability of the independent variable can be explained by the variability of the dependent variable of 68.6% and the remaining 48.2% is explained by other variables outside the model studied. From the table 3 we can conclude the logit equation in this model is as follows:

$$DISTRESSED_i = -31,660 + 0,000CR + 0,002QR + 0,061DR - 0,004DER - 0,372ROE + 6,075PER - 0,208INF$$

Based on the results of the hypothesis test table in table 3 is as follows:

Current ratio (CR) has a significance value of 0.996. Significance value of more than 0.05 indicates no significant effect of the CR variable on ICR. From the entire research sample, there were only 16 observational data compared to all observational data of 68 observations during the study period that were non-liquid or had a total current debt greater than its current assets which caused the company to be unable to repay its short-term debt. This has led to the findings that the variables CR no significant effect on the ICR. This study has the same result with the results of research of Hartianah and Sulasmiyati which states that the current ratio does not significantly influence on financial distress [8].

Likewise, the Quick ratio (QR) variable which has a significance value of 0.941. Significance value of more than 0.05 indicates that there is no significant effect of the QR variable on ICR. From the overall sample, there were 47 observations from 68 observations which were non-liquid or had difficulty in fulfilling their short-term obligations. Although there are many observational data that experience

non-liquid conditions, quick ratio cannot predict financial distress accurately. This result is in line with the results of research showed by Ayu et al. which states that quick ratio does not significantly influence financial distress [7].

However, different results are shown by the debt ratio (DR) variable which has a significance value of 0.002. Significance value less than alpha 0.05 indicates a significant effect of the DR variable on ICR. Debt ratio calculation in all samples shows 5 samples results are not solvable. That means there are 5 companies do not have the ability to pay off their obligations both short-term and long-term liabilities because the total debt value is greater than the total asset value. The logistic regression test results show that the debt ratio variable has an influence on the likelihood of a company suffering financial distress. The results of this study are in line with the results of research conducted by Wikhan [10] which shows that the DR variable has a significant positive effect on financial distress and Rohmadini [9] also showed the same result.

Debt equity ratio (DER) has a significance value of 0.330. Significance value of more than the 0.05 level indicates that there is no significant influence of the DER variable on ICR. From the calculation of all samples, from 68 observations there were 43 observations that were not solvable. The results of this study cannot prove that the debt equity ratio variable has an influence on financial distress. The results of this study are in line with the results of research led by Ayu et al. which stated that the DER does not significantly influence on financial distress [7]. However, the results of this study contradict with the research of Hartianah and Sulasmiyati and the theory which stated that the higher the value of the DER, the less solvable because the debt is greater than the equity so suffering difficulties in repaying debt will experience financial distress [8].

The only profitability ratio of the study showed a significant effect on financial distress. Return on equity (ROE) has a significance value of 0.003 which is less than alpha of 0.05. It indicates a significant effect of the ROE variable on ICR. Return on equity which calculates the ratio between net income and equity to generate profits can predict the existence of financial distress that occurs in the company. The results of this study are the same as those directed by Assaji and Machmuddah [13]. The results of this study are shown by the logistic equation has a negative relationship direction in line with the theory that the higher the profitability ratio, the better the management of equity for the company's business activities in generating profits so that the smaller the company is experiencing financial difficulties.

Two macroeconomic variables study exhibited similar results i.e. no significant effect on the ICR. Economic growth (PER) has a significance value of 0.158 while inflation (INF) has a value of 0.148. Significance value of more than 0.05 means that there is no significant influence of economic growth (PER) and inflation (INF) variables against ICR. Economic variables that are proxied by economic growth and the consumer price index are unable to predict financial distress. This result is the same as those researches conducted by Zaki et al. [5]. Hartianah and Sulasmiyati who stated that inflation does not have a significant influence on financial distress [8]. The

result contradicts with the theory which states that macroeconomic variables which are company external factors can cause financial distress. It can be seen from the absence of a significant influence between economic growth and inflation with financial distress, so it can be concluded that economic growth and inflation are not macroeconomic factors that cause financial distress.

This research has several limitations: (1) Researchers only chose one sub-sector industry from many trade sectors, which is retail. It is possible in other sectors could have different research results, and (2). There is a lot of information in the company's financial statements that is incomplete, so, in result it can reduce the number of samples used in this study.

## V. CONCLUSION AND SUGGESTION

The results of this study indicate that from the company's internal and external factors broken down into 7 hypothesis, only the DR and ROE variables have a significant effect. It means the retail companies facing financial difficulty affected by the amount of debt and profitability. Where the two variables are factors that are classified into internal factors of the company. While in terms of the company's external factors both economic growth and inflation variables do not significantly influence the financial difficulties experienced by retail companies.

For companies which do not want to experience financial distress could considered the result of this study. They should maintain the DR and ROE value, because the greater the debt it will cause companies financial difficulty and the lowest the earning of the companies will be led to its difficulties too. Finally, here is some suggestion for further researchers. They should develop this study using samples from different sectors and uses other or more variables because several reasons. Samples from various sectors might be results a better model for predict financial distress. For dependent variable could also use the financial distress test using numbers of interest coverage ratio by using calculations directly without using a dummy variable. From the result of this study, which shows that economic growth and inflation were proxies macroeconomics variables did not have significant effects, other factors such as interest rate or exchange rate could be considered.

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