International Journal of Disaster Recovery and Business Continuity
Vol.12, No. 1, (2021), pp. 449–461

The Model of Financial Distress in the Pharmaceutical Industry

Reschiwati[1], Fran Sayekti[2], Rr Dimas Veronica Priharti[3], Hafidz Muhammad Arsyad[4]
[1] Sekolah Tinggi Ilmu Ekonomi Y.A.I Jakarta, Indonesia.
[2] Universitas Teknologi Yogyakarta, Indonesia.
[3] Universitas Baturaja, Indonesia.
[4] ABFII Perbanas Jakarta, Indonesia.

ABSTRACT

The current weakening of the rupiah will have an important impact on the industry in obtaining raw materials. The pharmaceutical industry in Indonesia still uses around 90% of its raw materials from imports. This can affect finances that can bring financial distress. This study aimed to determine the effect of liquidity (Cash Ratio), profitability (ROE), Solvency (DAR), and Inflation on Financial Distress (Z "- Score). This research was conducted at the company Pharmaceutical industry sector listed on the Indonesia Stock Exchange. The population of this research is all companies that have listed on the Indonesia Stock Exchange with the research period 2014 through to 2018. After passing through the sample selection stage, the number of companies that meet the criteria of the sample is as much as 5 pharmaceutical companies sub-sector. This research using descriptive analysis techniques and multiple linear regression analysis with methods Random Effect Model (REM). The results showed that Liquidity (Cash Ratio) had a significant positive effect; Solvency (DAR) and inflation have a significant negative effect on Financial Distress (Z "- Score). While profitability (ROE) has no effect on Financial Distress (Z ''-Score).

Keywords*: Financial Distress, Liquidity, Profitability, Solvency, Inflation*

INTRODUCTION

Companies can run into bankruptcy because the company is experiencing financial difficulties, or in other words, are in financial distress. According to Hidayat and Meiranto(2014), Financial distress is a condition in which the company is facing financial difficulties problem. Financial difficulties caused by a series of errors, lack of supervision efforts, lack of proper decision-making, as well as weaknesses interconnected that can contribute directly or indirectly to the company's financial condition, resulting in less use by what is needed. According to Damodaran (in Curry & Banjarnahor, 2018), The causes of the company's financial distress is more micro. While external factors are more macro.

A company can be categorized are experiencing financial distress if the company has a negative operating income, net income is negative, negative equity book value and companies are merging. Another phenomenon of financial distress is a company tend to liquidity problems, as indicated by the decline in the company's ability to meet its obligations to creditors(Hidayat & Meiranto, 2014),

Meanwhile, according to Curry and Banjarnahor (2018), The situation of financial distress can be seen from companies that can not meet the payment schedule or when the cash flow projections indicate that the company is unable to meet its obligations. Companies that have a negative net profit and for several years do not pay dividends as well as an indicator that the company is experiencing financial difficulties.

Required indicator to see the level of health and performance of the company to predict whether a company has the potential to bankrupt or not. One way to look at the performance by using financial ratios(Curry & Banjarnahor, 2018), In general, research on bankruptcy, failure, or financial distress using financial performance indicators in predicting the condition of the company in the future(Hidayat & Meiranto, 2014),

Financial ratios can be used for financial distress include liquidity ratios, profitability ratios, and leverage ratio

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

The liquidity ratio is the ability of an entity to pay off current liabilities of the company to utilize its current assets (Agustini & Wirawati, 2019), Current liabilities the company may be a debt that will mature in the near term and so on. Such obligations can be covered by the means of the company's liquidity. To keep the company remains in a liquid state and avoid financial distress, the company must have current funds greater than current debt. This is consistent with research Yustika(2015)wherein the variables affecting the liquidity of financial distress. However, according to research conducted by Agustini and Wirawati(2019), The liquidity ratio did not affect the financial distress. This is because the liquidity ratio is a measure of the short-term, while the financial distress is predictive for the long term.

Profitability ratio indicates the company's ability to generate profits in a given period about sales, total assets, or equity (Agustini & Wirawati, 2019), This ratio provides a measure of the effectiveness and efficiency of the management of a company. With the effectiveness of the use of corporate assets, it will reduce the cost incurred by the company so that the company will acquire the savings and has sufficient funds to run its business. With the existence of sufficient funds, then the likelihood of companies experiencing financial distress in the future will be smaller. As research conducted by Widati and Primary (2015) which indicates the profitability demonstrated by Return On Equity positive effect on financial distress, whereas, in research Hidayat and Meiranto (2014), profitability ratios are the only financial ratios are not significant in predicting financial distress.

The leverage ratio shows the ability of an entity to pay off the current debt and long term debt or ratios used to assess the extent to which an entity is financed using debt, as expressed by Wiagustini (in Agustini & Wirawati, 2019), If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to debts greater than assets. The company's inability to meet its debt maturity creditor may cause financial distress. This is supported by research conducted by Anggraini (2017)which indicates that the Debt to Assets Ratio negatively affects financial distress. On the other hand, Ratna and Marwati(2018) in research shows that leverage indicated by Debt to Assets Ratio does not affect the financial distress because most companies have total assets so high that the company can pay the liabilities with fixed assets of financial distress.

Another indicator used to predict financial distress is inflation. As revealed by Anggraini(2017) if inflation increases, the cost of production such as wages and raw materials will be higher also. Manufacturers will raise the selling price of goods. The high selling price of goods will reduce purchasing power. The company's operating income will be decreased, so that will have a direct impact on the company's finances. Companies should be able to press the variable cost increase. If this is not done then the finance company will continue to decline so it can not pay its obligations in the long term, even the company could face bankruptcy. So that inflation positively affects financial distress(Anggraini, 2017), according to research Earth(2018), Inflation negatively affects financial distress. These results indicate that the rise in inflation led to rising prices. By taking this opportunity the company increased prices by taking advantage less but the company production process is still running, so the company's profits and most importantly the company is not experiencing financial distress in times of inflation because many companies are in good condition when high inflation rates.

Pharmaceutical company is a company that has faced a very serious challenge in the past 2 years. A weakening rupiah exchange rate can have an impact on the company's financial stability. The pharmaceutical industry in Indonesia still relies on 90% of imported raw materials. This condition is getting worse because the pharmaceutical industry is an industry that is very limited by government policies, especially in determining the selling price of products. The implementation of the BPJS Health policy that limits drug selling prices has an impact on increasing drug consumption in the community but does not increase pharmaceutical company revenues. The growth of the pharmaceutical industry in 3 years has decreased. This can affect the sustainability of the pharmaceutical industry. This study aims to determine whether financial conditions and inflation rates affect the financial distress of pharmaceutical companies in Indonesia.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

LITERATURE REVIEW

Agency Theory

According to Brigham (in Wahyudi, 2015), Agency theory is the basis of the theory underlying the company's business practices over the years. The main principle of this theory asserts their working relationship between the parties to authorize a party receiving authority (agency). This separation in the accounting literature is called agency theory. According to Jensen and Meckling (in Saputra, 2016), Agency theory explains the existence of a contractual relationship between two or more parties in which one party called the principal (principal), who hires another party, called the agent (the agent) to perform some of the services on behalf of the owner which includes the delegation of authority.

In this case, the principals to delegate responsibility for decision making to the agent (Saputra, 2016), Principal responsibilities to an agent by the labor contract agreed upon. The powers and responsibilities of the agent and the principal stipulated in the employment contract by mutual consent. Principal hires an agent to perform tasks in the interest of the principal, including the delegation of decision-making authority. The contracts are often made based on the net income number, so it can be said that the agency theory has implications for accounting. According to Watts and Zimmerman (in Saputra, 2016), Principal and agent relationships are often determined by accounting numbers. This triggers the agent to think of how accounting can be used as a means to maximize its interests.

Financial Distress

Platt and Platt (in Ratna & Marwati, 2018) defining financial distress as a stage of decline in financial condition that occurs before the bankruptcy or liquidation.

Almilia and Kristijadi (in Ratna & Marwati, 2018) defining financial distress is a condition in which the company experienced negative net operating income for several years and for more than a year do not pay a dividend or eliminate the payment of dividends as well as layoffs.

As Luciana (in Ratna & Marwati, 2018) defining financial distress is a condition in which the company has delisted as a result of net income and negative equity book value in a row and the company has in-merger.

From the above definition, it can be concluded that financial distress is a condition in which the company experienced negative net operating income and negative equity book value over the years, coupled with the dismissal of the payment of dividends, which occurred before the company went bankrupt and caused the company delisted.

According to Moleong (2018), Financial difficulties (financial distress) began when the company can not meet the payment schedule or when the cash flow projections indicate that the company will soon be unable to meet its obligations.

According to Lin et al. (in Muflihah, 2017), Financial distress occurs because the liabilities of the company are greater than wealth (assets), the size and profits. Which makes less cash flow the company can not maximize the company's operations that result in decreased profits or losses that threatened its existence.

Other causes of companies experiencing financial difficulties are the absence or lack of effort to oversee the financial condition so that the use of the money is not appropriate. As a result, companies lack the money to pay salaries, buy raw materials and pay debts(Moleong, 2018),

The impact of financial distress not only worsen the financial condition of the company but also lead to other effects such as poor assessment of the performance of the company's management, the number of employees/employee is important that out because there will be the possibility of falling wages/salaries, suppliers refuse to provide credit and creditors do not want to give loan (Ratna & Marwati, 2018),

Financial Distress Using the Altman Z-Score Model

Financial ratios can be used as an indication of the bankruptcy of the company. Altman is known as a pioneer in the theory of bankruptcy with its Z-Score. Z-Score is a multivariable equation used by Altman to predict the rate of bankruptcy. The Z-Score continues to change, namely:

1. Original Z-Score

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

The original Z-Score Altman was first formulated by the background conditions, among others: the samples are taken from public manufacturing companies, companies located in the United States, formulated in 1968, the number of samples 66 companies consisting of 33 companies went bankrupt and 33 companies do not go bankrupt. The total ratio selected for testing were 22 pieces. Of these selected then only the most powerful 5 ratios collectively correlated with bankruptcy. The first version of the original Z-Score can be seen below.

Z = 1.2 + 1.4 X1 X2 X3 + 0.6 + 3.3 + 1.0 X4 X5

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total assets; X4 = Book value of equity / Book value of debt;
X5 = Sales / Total assets

Information:

a. If the value of Z-score> 2.99 then include companies that are not bankrupt.
b. If the Z-Score value from 1.81 to 2.99 the gray areas including enterprise.
c. If the value of Z-score <1.81, then including the bankrupt company.

1. Z'-Score

Due to the limitations of the use of the Z-Score which can only be used for public companies and manufacturing, then Altman developed two variants of the Z-Score, the Z'-Score and Z "-Score. Z'-Score is intended for non-public company (private) by way of reformulating ratio used, ie eliminating the market value of equity and replace it with a book value of equity.

Z = 1,717 X1 + 0.847 X2 + 3,107 X3 + X4 + 0.998 0.420 X5

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total; EBIT / Total assets assets; X4 = Book value of equity / Book value of debt; X5 = Sales / Total assets

Information:

a. If the value Z'-score> 2.90 then include companies that are not bankrupt.
b. If the Z'-Score values from 1.23 to 2.90 the gray areas including enterprise.
c. If the value Z'-Score <1.23 then including the bankrupt company.

2. Z "-Score

The final variant is Z "-Score. In the final model is the ratio of sales to total assets eliminated in the hope of industry effects, in terms of the size of the companies linked to assets or sales, can be eliminated. The sample used was replaced by companies from developing countries (emerging markets), namely Mexico. Z "-Score is the formula of the most flexible because it can be used for public and private companies.

Z = 6,56 X1 + X2 + 6.72 3.26 + 1.05 X3 X4

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total assets; X4 = Book value of equity / Book value of debt

Information:

a. If the value of Z "-Score> 2.60 then include companies that are not bankrupt.
b. If the value of Z "-Score 1.1 to 2.60 then including enterprise gray area.
c. If the value of Z "-Score <1.1 then including the bankrupt company.

Liquidity ratio

The liquidity ratio used to measure a company's ability to settle liabilities (liabilities) of short-term maturities (World, 2013). According to Harahap (in Anggraini, 2017), liquidity ratio is the ratio used to measure how liquid a company. The company's ability to meet its short-term debt is a depiction of the liquidity ratio. The ratio could be obtained from a source of information on working capital, ie items that are in current assets and items that are on the current debt.

Ratios are commonly used in measuring the liquidity ratio is the current ratio, which measures the company's ability to repay short-term liabilities by calculating the current assets divided by current liabilities., Quick Ratio which measures the company's ability to repay short-term liabilities by calculating

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

the current assets minus inventory divided by current liabilities, cash Ratio which measures the company's ability to repay short-term liabilities by counting cash and cash equivalents divided by current liabilities.

Profitability ratios

Profitability ratios are used to measure a company's ability to generate profits (World, 2013), According to Harahap (in Anggraini, 2017), Profitability is a depiction of a company's ability to earn a profit through all the capabilities and resources that exist within the company.

According to Brigham and Houston (in Anggraini, 2017), The company with the return on investment is very high which will use debt in relatively small quantities. A highly profitable company does not require too much debt funding for higher returns allow these companies to do most of its funding through internally generated funds.

Ratios are commonly used in measuring the profitability ratios Return on Assets (ROA), which indicates how much the use of corporate assets in profit. With the large ROA means the company can allocate its assets well to earn a profit and of course the company's performance was improving(Earth, 2018), ROA is calculated by comparing the net income divided by total assets, return on equity (ROE), which is used to determine the level of profit after tax compared to the level of equity held companies. ROE is used by shareholders to determine the company's ability to obtain a net profit to the distribution of dividends. ROE is calculated by comparing the net income with capital, profit margin which measures how much profit earned on sales generated by computing the net income divided by net sales

Solvency ratio

The solvency ratio or leverage is used to measure how far the company is financed with debt and how to affect the increase in earnings per share (World, 2013), The solvency ratio also showed the risks facing the company. The greater the risks facing the company, then the uncertainty to generate profits in the future will also increase. The solvency ratio shows the need for companies to think for providing funding for the debts of companies that are being borne. The lender company will take into account and evaluate the company's solvency ratio because lenders always want funds that he had lent will be returned with interest to the company that he depends on (Ratna & Marwati, 2018),

Ratios are commonly used in measuring the solvency ratio is the Debt to Asset Ratio (DAR), which measure how far the company's assets are financed with liabilities, Debt to Equity Ratio (DER), which measures the level of use of debt to total shareholders' equity of the company.

Inflation

Inflation is an increasing trend in the prices of goods and services in general and continuously. The increase of one or two types of goods can not be called inflation, but the price increases caused the rise in most of the prices of other goods. With inflation, the price of goods has increased so that people's purchasing power will decline. Reduction in people's purchasing power also means that their welfare level decreased(Anggraini, 2017),

Iramani (in Anggraini, 2017)said that high inflation will result in a lot of aspects in the management, especially financial. Pricing should be done carefully, because if the wrong company will suffer losses. Inflation causes a decline in purchasing power will decrease the company's revenue. If companies can not afford in the face of inflation, then the resulting financial distress in the company.

According to Rachmawati et al (in Anggraini, 2017), Inflation has a significant impact on the financial difficulties in which the lower the sensitivity to inflation, it will hinder the company's financial difficulties.

Liquidity Ratio and Financial Distress

The liquidity ratio used to measure the ability of an entity to pay off the current liabilities of the company to utilize its current assets. Such obligations can be covered from the means of liquid held firm to keep the company remains in a liquid state and avoid financial distress, making liquidity variables affecting financial distress. Sawyer (in Curry & Banjarnahor, 2018) explained that the liquidity ratio used to measure the liquidity of the company, demonstrating the company's ability to fund the company's operations to meet obligations (debt) short-term.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

If the company can fund and pay off short-term liabilities with the good, then the company's potential financial distress will be smaller (Yustika, 2015),
H1: Liquidity has a positive influence on the financial distress.

Profitability Ratios and Financial Distress

The profitability ratio indicates the company's ability to generate profits in a given period to sales, total assets, and the capital itself. With the effectiveness of the use of corporate assets, it will reduce the cost incurred by the company so that the company will acquire the savings and has sufficient funds to run its business, and the possibility of companies experiencing financial distress in the future will be smaller, so the profitability effect on the financial distress.
According to Ardiyanto (in Yustika, 2015), Profitability is a ratio used to measure a company's ability to earn income or profit. High profitability ratios may indicate the company's ability to use and manage their assets effectively and efficiently to generate income, thereby reducing the costs incurred by the company. Therefore, the company will acquire savings and has sufficient funds to run its business to avoid financial distress. In contrast, the low value of the ratio of profitability of a company may allow the company's performance is less effective in treating assets to generate profit which can result in losses that resulted in negative cash flow and the company will experience financial distress(Agustini & Wirawati, 2019),
H2: Profitability positive influence on financial distress.

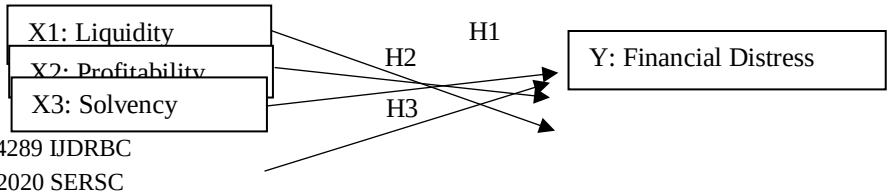
Leverage Ratio and Financial Distress

The leverage ratio shows the ability of an entity to pay off the current debt and long term debt. If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to greater debt than assets which may cause financial distress, so the effect on the solvency of financial distress.
Andre (in Moleong, 2018)explained that the leverage ratio is a ratio used to measure the extent of the company's assets are financed by debt. According to Sigit (in Curry & Banjarnahor, 2018), Leverage shows the company's ability to meet the obligations of both short term and long term. Analysis of the ratio is necessary to measure the company's ability to repay the debt (short term and long term) if at some point the company in liquidation or dissolved.
If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to debts greater than assets. If this situation can not be resolved properly, the potential for even greater financial distress. Bankruptcy usually begins with the moment of default. This is due to the greater amount of debt, the higher the probability of financial distress. Companies with many creditors will speedily move towards financial distress, compared to companies with a single creditor(Moleong, 2018),
H3: Solvency hurts financial distress.

Inflation and Financial Distress

If inflation increases, the cost of production such as wages and raw materials will be higher also. Manufacturers will raise the selling price of goods. The high selling price of goods will reduce purchasing power. The company's operating income will decline, so will have a direct impact on the company's finances, so that the inflation effect on financial distress. Darmawan (in Earth, 2018)explains that inflation causes the prices of all goods started to increase. This condition will reduce the purchasing power of consumers, so the company has a revenue decrease. If it continues over time, it will be detrimental to the company so that it will lead to financial distress. According to Nurhidayah, Rizqiyah and Rachmawati (in Anggraini, 2017)Inflation rate provides positive significant impact to the financial difficulties in which the lower the sensitivity to inflation, it will hinder the company's financial difficulties, or the greater the rate of inflation, then the likelihood of financial distress will also increase and this means Z "-Score decreases.
H4: Inflation has a negative effect on financial distress.

Following the theoretical framework that describes this hypothesis.



ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

H4

X4: Inflation

Figure1: Framework

RESEARCH METHODS

Population and Sample Techniques

The population in this study is pharmaceutical industry sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2014 to 2018. Sampling uses a purposive sampling technique, which is a sampling technique with certain considerations or criteria (Sujarweni, 2015). The criteria set are as follows: (1) The company has been listed before January 1, 2014 and has not been delisted from the IDX during the study period; (2) The company provides audited Annual Financial Statements as of December 31 during the study period, which is for 5 consecutive years. The number of companies in the consumer goods industry sector listed on the IDX is 11 companies. Based on data obtained from the IDX website, www.idx.co.id, from a total of 11 companies there are 5 companies that meet the criteria. Because the period taken is 5 years, the number of observations in this study is 25 samples.

Operational Variables

Financial distress (Y)

Measured by using a model of the Altman Z "-Score. The formula for calculating the value of Z "-

Liquidity (X1)

In the present study, the liquidity ratio is proxied by the Cash Ratio (CR).

CR = Cash / Short Term Debt

Profitability (X2)

In the present study, proxied by profitability ratios Return On Equity (ROE).

ROE = Net Income / Shareholders' Equity

Solvency (X3)

In the present study, the solvency ratio is proxied by the Debt to Asset Ratio (DAR).

DAR = Total Debt / Total Assets

Inflation (X4)

This variable was measured by recording the data rate of inflation published by Bank Indonesia (BI) every month starting in January 2014 until December 2018. The monthly data use in this research is that the data have not taken too wide fluctuation range. Then the monthly data are averaged over a year.

Processing and data analysis

Descriptive statistics

Descriptive statistics were used to provide information about the characteristics of the study is to determine the variables financial picture of distress, liquidity, profitability, solvency, inflation.

Selection of Panel Data Regression Model

To select a panel data estimation technique is done in three steps, namely, First, the Chow test is used to choose among methods common effect or fixed-effect method. Second, the Hausman test is used to select the method of fixed effect or random effect method. Third, the Lagrange Multiplier test (LM) which is used to choose among methods common effect or random effect method.

Classic assumption test

Consisting of normality test, autocorrelation test, heteroscedasticity Test, Multicollinearity Test

The goodness of Fit Test

Composed of Coefficient Determination Test (Test ²) and statistics test (t-test)

FINDING AND DISCUSSION

Descriptive Statistics Analysis

Table 1: Descriptive Statistics Variable

	Z_SCORE	CASH_RATIO	RETURN_ON_EQUITY	DEBT_ASSET_RATIO	INFLASI

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

Mean	6.58300	.68120	.21932	.30188	.04660
Std. Dev.	3.850201	.556568	.431946	.147421	.014629
Observations	25	25	25	25	25

The mean (mean) of Z "-Score is 6.58300 while the standard deviation is 3.850201 with 25 observations. Based on the descriptive statistical analysis, the average sample is in a state of not bankrupt or does not experience financial distress. The average (mean) and standard deviation of the Cash Ratio is 0.68120 and 0.556568 with 25 observations. From the descriptive statistical analysis above, the average sample liquidity is 68.12% or it can be said to be in a liquid condition. The average value (mean) of ROE is 0.21932 and the standard deviation of 0.431946 with the number of observations of 25 samples. Descriptive statistical analysis of profitability shows the average sample has a percentage of profit from capital of 21.93%. The mean value of the DAR is 0.30188 and the standard deviation is 0.147421 with 25 observations. Descriptive solvability statistical analysis shows the level of liabilities on the average assets of the sample is 30.18%. The average (mean) value of inflation is 0.04660 and the standard deviation is 0.014629 with 25 observations taken.

Results Selection Panel Data Regression Model

Table 2: Results of Panel Data Regression Model Selection

Type Test	Calculate F / Chi-Square Count	Probability	Result
Chow test	18.078174	0.0000	Fixed Effect Model (FEM)
Hausman test	3.903631	0.4192	Random Effect Model (REM)
Lagrange Multiplier test	12.06200	0.0001	Random Effect Model (REM)
Panel Data Regression Models			Random Effect Model (REM)

Based on the table 2 on top of the panel data regression models were used Random Effect Model (FEM).

Analysis of Panel Data Regression Model Random Effect

Table 3: Panel Data Regression Model Random Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.57480	0.793063	15.85599	0.0000
CR	1.713527	0.292675	5.854717	0.0000
ROE	-0.358295	0.356850	-1.004049	0.3273
DAR	-16.40321	1.684364	-9.738523	0.0000
INFLASI	-17.50268	6.363641	-2.750419	0.0123

Effects Specification	S.D.	Rho
Cross-section random	0.940277	0.8396
Idiosyncratic random	0.410995	0.1604

Weighted Statistics			
R-squared	0.948879	Mean dependent var	1.440279
Adjusted R-squared	0.938654	S.D. dependent var	1.696449
S.E. of regression	0.420177	Sum squared resid	3.530971
F-statistic	92.80666	Durbin-Watson stat	1.465869
Prob(F-statistic)	0.000000		

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

From table 3 panel data regression equation was as follows:

Z_SCORE = 12.57480 + 1.713527*CR - 0.358295*ROE - 16.40321*DAR - 17.50268*INFLASI + [CX=R]

Based on the above equation, the following interpretations of the regression equation are: (1) Constant of 12,57480; meaning that without considering the independent variable, the value of Z "-Score or financial distress is 12.57480; (2) Liquidity regression coefficient (Cash Ratio) of 1.713527; meaning that each increase in Cash Ratio is 1 unit, it will increase Y by 1.713527 units, assuming other variables are considered constant; (3) Profitability regression coefficient (Return On Equity) of -0.358295; meaning that each increase in ROE by 1 unit, it will decrease Y by 0.358295 units, assuming other variables are considered constant; (4) Solvability regression coefficient (Debt to Asset Ratio) of - 16.40321; it means that every DAR increase is 1 unit, it will decrease Y by 16.40321 units, assuming other variables are considered constant; (5) inflation regression coefficient of -17.50268; it means that every increase of inflation is 1 unit, it will increase Y by 17.50268 units, assuming other variables are considered constant.

Classic assumption test
Normality Test Results

Table 4: Jarque-fallow Normality Test Results

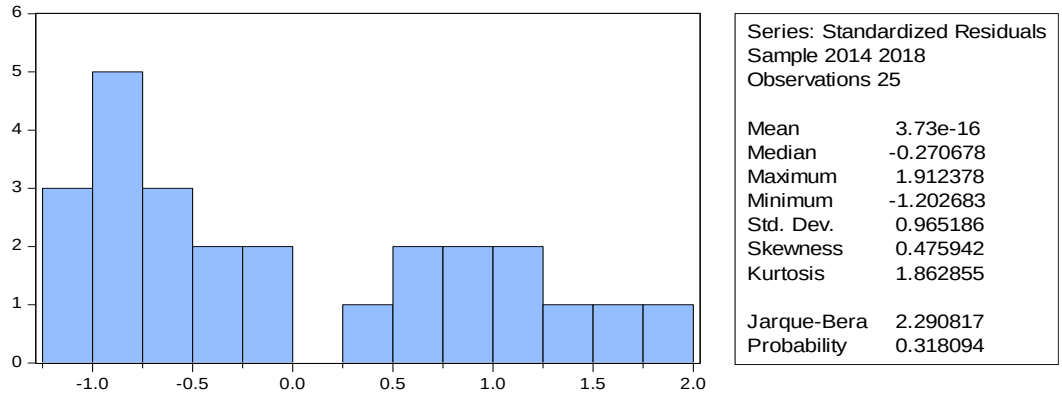


Table 4 shows the results of the regression normality test with a Jarque-Bera statistical value of 2.290817 and a significance probability value of 0.318094> 0.05 means that the assumption of normality is met.

Heterokedasticity Test Results
Heterokedastisitas test is done using the White test. If the probability value is <0.05, it will produce a rejection of H0 which states there is a heterokedasticity problem. Conversely, if the probability value> 0.05, it will produce H0 acceptance which states there is no heterokedasticity problem.

Table 5: White Heteroscedasticity Test Results

Heteroskedasticity Test: White

F-statistic	1.281004	Prob. F(14,10)	0.3527
Obs*R-squared	16.05035	Prob. Chi-Square(14)	0.3103
Scaled explained SS	8.235594	Prob. Chi-Square(14)	0.8767

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

Based on the table above shows that almost all independent variables are above the level of significance (p> 0.05), it can be concluded that there is no heteroscedasticity.

Multicollinearity Test Results

The method for testing the presence of multicollinearity can be seen from the tolerance value or variance inflantion factor (VIF). The limit of tolerance value> 0.1 or VIF value is less than 10, so there is no multicollinearity.

Table 6: Results of the Multicollinearity Test of Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.777609	29.79679	NA
CR	0.152515	5.173002	1.697203
ROE	0.185611	1.630735	1.239826
DAR	2.592205	12.89641	1.773123
INFLASI	141.3869	12.87794	1.113018

The multicollinity test results in table 6. show that all independent variables have a VIF less than 10. So it can be concluded that there is no multicollinity between the independent variables in the regression model.

Test Results of Goodness of Fit

Coefficient of Determination (R Square)

Overall multiple regression test results as can be seen in table 3. shows the adjusted R2 value of 0.938654 which shows that financial distress can be influenced by four independent variables namely liquidity, profitability, solvency, and inflation by 93.87%, and the rest can explained by other variables not explained in the model.

Statistical Test Results (t Test)

The number of observations in this study were 25 and the number of variables was 5, so the degree of freedom was 25 - 5 = 20, and the significance level was 5% in two directions, then the value of the table was 2,086 / -2,086. Interpreted the t test from table 3. above : (1) Liquidity (Cash Ratio) has a tcount> t table (5.854717> 2.086) with a significance level of 0.0000 <0.05. This shows that liquidity has a positive and significant effect on financial distress (Z ”-Score) ; (2) Profitability (Return On Equity) has a value-table ≤ t count ≤ t table (-2.086 <-1.004049 <2.086) with a significance level of 0.3273> 0.05. This shows that profitability has a negative and not significant effect on financial distress (Z ”-Score) ; (3) Solvency (Debt to Asset Ratio) has a t-value <-table (-9.738523 <-2.086) with a significance level of 0.0000 <0.05. This shows that solvency has a negative and significant effect on financial distress (Z ”-Score) ; (4) Inflation has a t-value ≤ -table (-2.750419 <-2.086) with a significance level of 0.0123 <0.05. This shows that inflation has a negative and significant effect on financial distress (Z ”-Score).

Discussion

Partial test results (t test) show that liquidity measured by Cash Ratio has a positive and significant effect on financial distress (Z ”-Score). This result is proved by Prob value. equal to 0.0000, which is smaller than the significance level of 0.05. The company's ability to meet its short-term obligations from the

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

amount of cash funds or cash equivalents available has a positive effect on the level of bankruptcy of the company represented by its indicator, the variable Z ”-Score. This is because the liquidity ratio is a short-term measure, while financial distress is a prediction for the long term.

Partial test results (t test) indicate that profitability as measured by Return On Equity (ROE) has a negative and not significant effect on financial distress (Z ”-Score). This result is proved by Prob value. of 0.3273, which is greater than the significance value of 0.05. The company's ability to generate profits by comparison with capital does not affect the level of bankruptcy of the company represented by its indicator, the variable Z ”-Score. Companies that experience financial distress generally have negative profitability. Profitability shows the efficient and effective use of assets in generating company profits. The company's negative profitability indicates that there is no effectiveness in using company assets to generate net profit. Profitability is the net result of various policies and decisions, where the ratio is used as a measure of the company's ability to benefit from every dollar of sales generated. The greater the profitability, the smaller the probability that the company will experience financial distress.

Partial test results (t test) indicate that the solvency measured by Debt to Assets Ratio (DAR) has a negative and significant effect on financial distress (Z ”-Score). This result is proved by the regression coefficient value of -16.40321 and Prob value. is 0.0000, which is smaller than the significance value of 0.05, which means it shows a negative and significant relationship.

This is because debt is a very highlighted factor for assessing whether a company is healthy or not. If the company cannot utilize its debt properly, it will threaten the sustainability of the company. Vice versa, if the company can optimize its debt well, then the company's survival will be longer and further away from the threat of bankruptcy. The lower the company's ability to pay long-term and short-term obligations, the more likely it is to experience financial distress. Vice versa, if the company's ability to pay long-term and short-term obligations is higher, the less likely to experience financial distress.

Partial test results (t test) show that inflation has a negative and significant effect on financial distress (Z ”-Score). This result is proved by Prob value. of 0.0123, which is less than the significance value of 0.05. Financial distress is influenced by high or low inflation rates. In a state of high inflation, pharmaceutical companies do not have the risk to experience financial distress. There is a significant influence between the rate of inflation with financial distress because the inflation rate in the study period looks unstable, there is a big decrease. Besides that, with the different inflation rates, the number of observations that experience financial distress and in a healthy condition remains the same.

CONCLUSION

Based on the data analysis and discussion conducted, the conclusions obtained in this study are the results of partial testing (t test) with the Random Effect Model (REM) method showing that: (1) Liquidity has a positive and significant effect on financial distress. Liquidity that is proxied by Cash Ratio does not affect financial distress because, although most companies have lower availability of cash and cash equivalents compared to their current liabilities, these companies are not in financial distress. Although the availability of cash and cash equivalents is lower compared to its current liabilities, the company still has other current assets such as receivables and inventories so that the company is able to pay off its current liabilities; (2) Profitability is the only variable that has a negative and not significant effect on financial distress. Profitability which is proxied by Return On Equity (ROE) does not affect financial distress because, although most companies have a low percentage of profit from capital, these companies are not in financial distress, (3) Inflation has a negative and significant effect on financial distress . Inflation decreases financial distress because the inflation rate tends to be unstable and there is a significant decrease; (4) Solvency has a negative and significant effect on financial distress. Solvency which is proxied by Debt to Asset Ratio (DAR) is one of the causes of companies experiencing financial distress. Companies with high DAR will be more vulnerable to financial distress, where the higher the proportion of debt compared to assets, the possibility of companies experiencing financial distress will be higher.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

REFERENCES

3. Agustini, N. W., & Wirawati, N. G. (2019). Pengaruh Rasio Keuangan pada Financial Distress Perusahaan Ritel yang Terdaftar di Bursa Efek Indonesia (BEI). *E-Jurnal Akuntansi Universitas Udayana*, 254-256.

4. Anggraini, R. (2017). Analisis Profitabilitas, Likuiditas, Leverage, dan Inflasi Dalam Memprediksi Financial Distress pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia. *ASSETS : Jurnal Ilmiah Ilmu Akuntansi, Keuangan dan Pajak*.

5. Curry, K., & Banjarnahor, E. (2018). Financial Distress pada Perusahaan Sektor Properti Go Public di Indonesia. *Seminar Nasional Pakar ke 1 Tahun 2018*, 207-208.

6. Dunia, F. A. (2013). *Pengantar Akuntansi.* Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

7. Hanafi, I., & Supriyadi, S. G. (2018). Prediksi Financial Distress Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *Ekuivalensi*, 46.

8. Hidayat, M. A., & Meiranto, W. (2014). Prediksi Financial Distress Perusahaan Manufaktur di Indonesia. *Diponegoro Journal Of Accounting*, 1-2. Retrieved from Statiskian.

9. Marfungatun, F. (2017). Pengaruh Rasio Profitabilitas, Likuiditas dan Leverage Terhadap Kondisi Financial Distress Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *E-journal S1 AK Universitas Pendidikan Ganesha*, 10.

10. Moleong, L. C. (2018). Pengaruh Real Interest Rate dan Leverage Terhadap Financial Distress. *MODUS*, 72.

11. Muflihah, I. Z. (2017). Analisis Financial Distress Perusahaan Manufaktur di Indonesia dengan Regresi Logistik. *Majalah Ekonomi, 4*, 257.

12. Ningrum, D. A. (2018, 10 19). *4 Perusahaan besar mendadak bangkrut, ini penyebabnya*. Retrieved from merdeka.com: https://www.merdeka.com/uang/4-perusahaan-besar-mendadak-bangkrut-ini-penyebabnya.html

13. Pertiwi, D. A. (2018). Pengaruh Rasio Keuangan, Growth, Ukuran Perusahaan dan Inflasi Terhadap Financial Distress di Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2012 - 2016. *Jurnal Ilmu Manajemen*, 361.

14. Pioh, H. T., Tommy, P., & Sepang, J. L. (2018). Pengaruh Debt to Equity Ratio, Earning Per Share dan Return On Asset Terhadap Nilai Perusahaan Sub Sector Food and Beverages di Bursa Efek Indonesia. *EMBA*, 3020.

15. Priyatno, D. (2013). *Mandiri Belajar Analisis Data Dengan SPSS.* Yogyakarta: MediaKom.

16. Purnomo, P. (2014). Analisis Pengaruh Tingkat Prediksi Financial Distress Terhadap Imbal Hasil Saham pada Sektor Pertambangan di Bursa Efek Indonesia. *Jurnal OE*, 383-384.

17. Ratna, I., & Marwati. (2018). Analisis Faktor-Faktor yang Mempengaruhi Kondisi Financial Distress pada Perusahaan yang Delisting dari Jakarta Islamic Index Tahun 2012-2016. *Jurnal Tabarru' : Islamic Banking and Finance*, 54-55.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

18. Saputra, T. I. (2016, February 4). *Makalah Teori Akuntansi - Grand Theory*. Retrieved from Tunggal Ika Saputra: http://tunggalikasaputra.blogspot.com/2016/02/makalah-teori-akuntansi-grand-theory.html

19. Septiadi, A., & Winarto, Y. (2018, 12 27). *Sepanjang 2018, jumlah perkara kepailitan melonjak*. Retrieved from Kontan.co.id: https://nasional.kontan.co.id/news/sepanjang-2018-jumlah-perkara-kepailitan-melonjak?page=all

20. Sujarweni, V. W. (2015). *Metodologi Penelitian Bisnis & Ekonomi*. Yogyakarta: Pustaka Baru Press.

21. Wahyudi, I. (2015, Augustus). *Grand Theory*. Retrieved from Magister Akuntansi: https://magisterakutansi.blogspot.com/2015/08/grand-theory.html

22. Wahyuni, S., Elu, W. B., Prihandini, W., Safaria, S., Riwayati, H. E., Jasman, & Iqbal, M. (2017). *Buku Panduan Penulisan Skripsi Program Studi S1 Manajemen dan S1 Akuntansi Fakultas Ekonomi dan Bisnis Institut Keuangan Perbankan dan Informatika Asia IKPIA Perbanas*. Jakarta: Koperasi Karyawan Institut Perbanas.

23. Widati, L. W., & Pratama, B. A. (2015). Pengaruh Current Ratio, Debt to Equity Ratio, dan Return on Equity untuk Memprediksi Kondisi Financial Distress. *Prosiding Seminar Nasional Multi Disiplin Ilmu & Call for Papers Unisbank (Sendi_U)*.

24. Yustika, Y. (2015). Pengaruh Likuiditas, Leverage, Profitabilitas,Operating Capacity dan Biaya Agensi Manajerial Terhadap Financial Distress. *Jom FEKON*, 4-6.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

The Model of Financial Distress in the Pharmaceutical Industry

by Reschiwati, Fran Sayekti, Rr Dimas Veronica Priharti, Hafidz Muhammad Arsyad

Submission date: 01-Apr-2021 09:02AM (UTC+0800)
Submission ID: 1547748841
File name: 35712-Article_Text-55655-1-10-20210322.pdf (420.16K)
Word count: 7271
Character count: 38972

International Journal of Disaster Recovery and Business Continuity
Vol.12, No. 1, (2021), pp. 449–461

The Model of Financial Distress in the Pharmaceutical Industry

Reschiwati[1], Fr Sayekti[2], Rr Dimas Veronica Priharti[3], Hafidz Muhammad Arsyad[4]
[1] Sekolah Tinggi Ilmu Ekonomi Y.A.I Jakarta, Indonesia.
[2] Universitas Teknologi Yogyakarta, Indonesia.
[3] Universitas Baturaja, Indonesia.
[4] ABFII Perbanas Jakarta, Indonesia.

ABSTRACT

The current weakening of the rupiah will have an important impact on the industry in obtaining raw materials. The pharmaceutical industry in Indonesia still uses around 90% of its raw materials from imports. This can affect finances that can bring financial distress. This study aimed to determine the effect of liquidity (Cash Ratio), profitability (ROE), Solvency (DAR), and Inflation on Financial Distress (Z "-Score). This research was conducted at the company Pharmaceutical industry sector listed on the Indonesia Stock Exchange. The population of this research is all companies that have listed on the Indonesia Stock Exchange with the research period 2014 through to 2018. After passing through the sample selection stage, the number of companies that meet the criteria of the sample is as much as 5 pharmaceutical companies sub-sector. This research using descriptive analysis techniques and multiple linear regression analysis with methods Random Effect Model (REM). The results showed that Liquidity (Cash Ratio) had a significant positive effect; Solvency (DAR) and inflation have a significant negative effect on Financial Distress (Z "- Score). While profitability (ROE) has no effect on Financial Distress (Z "-Score).

Keywords: *Financial Distress, Liquidity, Profitability, Solvency, Inflation*

INTRODUCTION

Companies can run into bankruptcy because the company is experiencing financial difficulties, or in other words, are in financial distress. According to Hidayat and Meiranto(2014), Financial distress is a condition in which the company is facing financial difficulties problem. Financial difficulties caused by a series of errors, lack of supervision efforts, lack of proper decision-making, as well as weaknesses interconnected that can contribute directly or indirectly to the company's financial condition, resulting in less use by what is needed. According to Damodaran (in Curry & Banjarnahor, 2018), The causes of the company's financial distress is more micro. While external factors are more macro.

A company can be categorized are experiencing financial distress if the company has a negative operating income, net income is negative, negative equity book value and companies are merging. Another phenomenon of financial distress is a company tend to liquidity problems, as indicated by the decline in the company's ability to meet its obligations to creditors(Hidayat & Meiranto, 2014),

Meanwhile, according to Curry and Banjarnahor (2018), The situation of financial distress can be seen from companies that can not meet the payment schedule or when the cash flow projections indicate that the company is unable to meet its obligations. Companies that have a negative net profit and for several years do not pay dividends as well as an indicator that the company is experiencing financial difficulties.

Required indicator to see the level of health and performance of the company to predict whether a company has the potential to bankrupt or not. One way to look at the performance by using financial ratios(Curry & Banjarnahor, 2018), In general, research on bankruptcy, failure, or financial distress using financial performance indicators in predicting the condition of the company in the future(Hidayat & Meiranto, 2014),

Financial ratios can be used for financial distress include liquidity ratios, profitability ratios, and leverage ratio

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

The liquidity ratio is the ability of an entity to pay off current liabilities of the company to utilize its current assets (Agustini & Wirawati, 2019), Current liabilities the company may be a debt that will mature in the near term and so on. Such obligations can be covered by the means of the company's liquidity. To keep the company remains in a liquid state and avoid financial distress, the company must have current funds greater than current debt. This is consistent with research Yustika(2015)wherein the variables affecting the liquidity of financial distress. However, according to research conducted by Agustini and Wirawati(2019), The liquidity ratio did not affect the financial distress. This is because the liquidity ratio is a measure of the short-term, while the financial distress is predictive for the long term.

Profitability ratio indicates the company's ability to generate profits in a given period about sales, total assets, or equity (Agustini & Wirawati, 2019), This ratio provides a measure of the effectiveness and efficiency of the management of a company. With the effectiveness of the use of corporate assets, it will reduce the cost incurred by the company so that the company will acquire the savings and has sufficient funds to run its business. With the existence of sufficient funds, then the likelihood of companies experiencing financial distress in the future will be smaller. As research conducted by Widati and Primary (2015) which indicates the profitability demonstrated by Return On Equity positive effect on financial distress, whereas, in research Hidayat and Meiranto (2014), profitability ratios are the only financial ratios are not significant in predicting financial distress.

The leverage ratio shows the ability of an entity to pay off the current debt and long term debt or ratios used to assess the extent to which an entity is financed using debt, as expressed by Wiagustini (in Agustini & Wirawati, 2019), If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to debts greater than assets. The company's inability to meet its debt maturity creditor may cause financial distress. This is supported by research conducted by Anggraini (2017)which indicates that the Debt to Assets Ratio negatively affects financial distress. On the other hand, Ratna and Marwati(2018) in research shows that leverage indicated by Debt to Assets Ratio does not affect the financial distress because most companies have total assets so high that the company can pay the liabilities with fixed assets of financial distress.

Another indicator used to predict financial distress is inflation. As revealed by Anggraini(2017) if inflation increases, the cost of production such as wages and raw materials will be higher also. Manufacturers will raise the selling price of goods. The high selling price of goods will reduce purchasing power. The company's operating income will be decreased, so that will have a direct impact on the company's finances. Companies should be able to press the variable cost increase. If this is not done then the finance company will continue to decline so it can not pay its obligations in the long term, even the company could face bankruptcy. So that inflation positively affects financial distress(Anggraini, 2017), according to research Earth(2018), Inflation negatively affects financial distress. These results indicate that the rise in inflation led to rising prices. By taking this opportunity the company increased prices by taking advantage less but the company production process is still running, so the company's profits and most importantly the company is not experiencing financial distress in times of inflation because many companies are in good condition when high inflation rates.

Pharmaceutical company is a company that has faced a very serious challenge in the past 2 years. A weakening rupiah exchange rate can have an impact on the company's financial stability. The pharmaceutical industry in Indonesia still relies on 90% of imported raw materials. This condition is getting worse because the pharmaceutical industry is an industry that is very limited by government policies, especially in determining the selling price of products. The implementation of the BPJS Health policy that limits drug selling prices has an impact on increasing drug consumption in the community but does not increase pharmaceutical company revenues. The growth of the pharmaceutical industry in 3 years has decreased. This can affect the sustainability of the pharmaceutical industry. This study aims to determine whether financial conditions and inflation rates affect the financial distress of pharmaceutical companies in Indonesia.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

LITERATURE REVIEW

Agency Theory

According to Brigham (in Wahyudi, 2015), Agency theory is the basis of the theory underlying the company's business practices over the years. The main principle of this theory asserts their working relationship between the parties to authorize a party receiving authority (agency). This separation in the accounting literature is called agency theory. According to Jensen and Meckling (in Saputra, 2016), Agency theory explains the existence of a contractual relationship between two or more parties in which one party called the principal (principal), who hires another party, called the agent (the agent) to perform some of the services on behalf of the owner which includes the delegation of authority.

In this case, the principals to delegate responsibility for decision making the agent (Saputra, 2016), Principal responsibilities to an agent by the labor contract agreed upon. The powers and responsibilities of the agent and the principal stipulated in the employment contract by mutual consent. Principal hires an agent to perform tasks in the interest of the principal, including the delegation of decision-making authority. The contracts are often made based on the net income number, so it can be said that the agency theory has implications for accounting. According to Watts and Zimmerman (in Saputra, 2016), Principal and agent relationships are often determined by accounting numbers. This triggers the agent to think of how accounting can be used as a means to maximize its interests.

Financial Distress

Platt and Platt (in Ratna & Marwati, 2018) defining financial distress as a stage of decline in financial condition that occurs before the bankruptcy or liquidation.

Almilia and Kristijadi (in Ratna & Marwati, 2018) defining financial distress is a condition in which the company experienced negative net operating income for several years and for more than a year do not pay a dividend or eliminate the payment of dividends as well as layoffs.

As Luciana (in Ratna & Marwati, 2018) defining financial distress is a condition in which the company has delisted as a result of net income and negative equity book value in a row and the company has in-merger.

From the above definition, it can be included that financial distress is a condition in which the company experienced negative net operating income and negative equity book value over the years, coupled with the dismissal of the payment of dividends, which occurred before the company went bankrupt and caused the company delisted.

According to Moleong (2018), Financial difficulties (financial distress) began when the company can not meet the payment schedule or when the cash flow projections indicate that the company will soon be unable to meet its obligations.

According to Lin et al. (in Muflihah, 2017), Financial distress occurs because the liabilities of the company are greater than wealth (assets), the size and profits. Which makes less cash flow the company can not maximize the company's operations that result in decreased profits or losses that threatened its existence.

Other causes of companies experiencing financial difficulties are the absence or lack of effort to oversee the financial condition so that the use of the money is not appropriate. As a result, companies lack the money to pay salaries, buy raw materials and pay debts(Moleong, 2018),

The impact of financial distress not only worsen the financial condition of the company but also lead to other effects such as poor assessment of the performance of the company's management, the number of employees/employee is important that out because there will be the possibility of falling wages/salaries, suppliers refuse to provide credit and creditors do not want to give loan (Ratna & Marwati, 2018),

Financial Distress Using the Altman Z-Score Model

Financial ratios can be used as an indication of the bankruptcy of the company. Altman is known as a pioneer in the theory of bankruptcy with its Z-Score. Z-Score is a multivariable equation used by Altman to predict the rate of bankruptcy. The Z-Score continues to change, namely:

1. Original Z-Score

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

The original Z-Score Altman was first formulated by the background conditions, among others: the samples are taken from public manufacturing companies, companies located in the United States, formulated in 1968, the number of samples 66 companies consisting of 33 companies went bankrupt and 33 companies do not go bankrupt. The total ratio selected for testing were 22 pieces. Of these selected then only the most powerful 5 ratios collectively correlated with bankruptcy. The first version of the original Z-Score can be seen below.

= 1.2 + 1.4 X1 X2 X3 + 0.6 + 3.3 + 1.0 X4 X5

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total assets; X4 = Book value of equity / Book value of debt;
X5 = Sales / Total assets

Information:

a. If the value of Z-score> 2.99 then include companies that are not bankrupt.
b. If the Z-Score value from 1.81 to 2.99 the gray areas including enterprise.
c. If the value of Z-score <1.81, then including the bankrupt company.

1. Z'-Score

Due to the limitations of the use of the Z-Score which can only be used for public companies and manufacturing, then Altman developed two variants of the Z-Score, the Z'-Score and Z "-Score. Z'-Score is intended for non-public company (private) by way of reformulating ratio used, ie eliminating the market value of equity and replace it with a book value of equity.

Z = 1,717 X1 + 0.847 X2 + 3,107 X3 + X4 + 0.998 0.420 X5

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total; EBIT / Total assets assets; X4 = Book value of equity / Book value of debt; X5 = Sales / Total assets

Information:

a. If the value Z'-score> 2.90 then include companies that are not bankrupt.
b. If the Z'-Score values from 1.23 to 2.90 the gray areas including enterprise.
c. If the value Z'-Score <1.23 then including the bankrupt company.

2. Z "-Score

The final variant is Z "-Score. In the final model is the ratio of sales to total assets eliminated in the hope of industry effects, in terms of the size of the companies linked to assets or sales, can be eliminated. The sample used was replaced by companies from developing countries (emerging markets), namely Mexico. Z "-Score is the formula of the most flexible because it can be used for public and private companies.

= 6,56 X1 + X2 + 6.72 3.26 + 1.05 X3 X4

X1 = Working capital / Total assets; X2 = Retained earnings / Total assets;
X3 = EBIT / Total assets; X4 = Book value of equity / Book value of debt

Information:

a. If the value of Z "-Score> 2.60 then include companies that are not bankrupt.
b. If the value of Z "-Score 1.7 to 2.60 then including enterprise gray area.
c. If the value of Z "-Score <1.1 then including the bankrupt company.

Liquidity rati

The liquidity ratio used to measure a company's ability to settle liabilities (liabilities) of short-term maturities (World, 2013). According to Harahap (in Anggraini, 2017), liquidity ratio is the ratio used to measure how liquid a company. The company's ability to meet its short-term debt is a depiction of the liquidity ratio. The ratio could be obtained from a source of information on working capital, ie items that are in current assets and items that are on the current debt.

Ratios are commonly used in measuring the liquidity ratio is the current ratio, which measures the company's ability to repay short-term liabilities by calculating the current assets divided by current liabilities., Quick Ratio which measures the company's ability to repay short-term liabilities by calculating

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

the current assets minus inventory divided by current liabilities, cash Ratio which measures the company's ability to repay short-term liabilities by counting cash and cash equivalents divided by current liabilities.

Profitability ratios

Profitability ratios are used to measure a company's ability to generate profits (World, 2013), According to Harahap (in Anggraini, 2017), Profitability is a depiction of a company's ability to earn a profit through all the capabilities and resources that exist within the company.

According to Brigham and Houston (in Anggraini, 2017), The company with the return on investment is very high which will use debt in relatively small quantities. A highly profitable company does not require too much debt funding for higher returns allow these companies to do most of its funding through internally generated funds.

Ratios are commonly used in measuring the profitability ratios Return on Assets (ROA), which indicates how much the use of corporate assets in profit. With the large ROA means the company can allocate its assets well to earn a profit and of course the company's performance was improving(Earth, 2018), ROA is calculated by comparing the net income divided by total assets, return on equity (ROE), which is used to determine the level of profit after tax compared to the level of equity held companies. ROE is used by shareholders to determine the company's ability to obtain a net profit to the distribution of dividends. ROE is calculated by comparing the net income with capital, profit margin which measures how much profit earned on sales generated by computing the net income divided by net sales

Solvency ratio

The solvency ratio or leverage is used to measure how far the company is financed with debt and how to affect the increase in earnings per share (World, 2013), The solvency ratio also showed the risks facing the company. The greater the risks facing the company, then the uncertainty to generate profits in the future will also increase. The solvency ratio shows the need for companies to think for providing funding for the debts of companies that are being borne. The lender company will take into account and evaluate the company's solvency ratio because lenders always want funds that he had lent will be returned with interest to the company that he depends on (Ratna & Marwati, 2018),

Ratios are commonly used in measuring the solvency ratio is the Debt to Asset Ratio (DAR), which measure how far the company's assets are financed with liabilities, Debt to Equity Ratio (DER), which measures the level of use of debt to total shareholders' equity of the company.

Inflation

Inflation is an increasing trend in the prices of goods and services in general and continuously. The increase of one or two types of goods can not be called inflation, but the price increases caused the rise in most of the prices of other goods. With inflation, the price of goods has increased so that people's purchasing power will decline. Reduction in people's purchasing power also means that their welfare level decreased(Anggraini, 2017),

Iramani (in Anggraini, 2017)said that high inflation will result in a lot of aspects in the management, especially financial. Pricing should be done carefully, because if the wrong company will suffer losses. Inflation causes a decline in purchasing power will decrease the company's revenue. If companies can not afford in the face of inflation, then the resulting financial distress the company.

According to Rachmawati et al (in Anggraini, 2017), Inflation has a significant impact on the financial difficulties in which the lower the sensitivity to inflation, it will hinder the company's financial difficulties.

Liquidity Ratio and Financial Distress

The liquidity ratio used to measure the ability of an entity to pay off the current liabilities of the company to utilize its current assets. Such obligations can be covered from the means of liquid held firm to keep the company remains in a liquid state and avoid financial distress, making liquidity variables affecting financial distress. Saw (in Curry & Banjarnahor, 2018) explained that the liquidity ratio used to measure the liquidity of the company, demonstrating the company's ability to fund the company's operations to meet obligations (debt) short-term.

ISSN: 2005-4289 IJDRBC
Copyright⓪2020 SERSC

If the company can fund and pay off short-term liabilities with the good, then the company's potential financial distress will be smaller (Yustika, 2015),

H1: Liquidity has a positive influence on the financial distress.

Profitability Ratios and Financial Distress

The profitability ratio indicates the company's ability to generate profits in a given period to sales, total assets, and the capital itself. With the effectiveness of the use of corporate assets, it will reduce the cost incurred by the company so that the company will acquire the savings and has sufficient funds to run its business, and the possibility of companies experiencing financial distress in the future will be smaller, so the profitability effect on the financial distress.

According to Ardiyanto (in Yustika, 2015), Profitability is a ratio used to measure a company's ability to earn income or profit. High profitability ratios may indicate the company's ability to use and manage their assets effectively and efficiently to generate income, thereby reducing the costs incurred by the company. Therefore, the company will acquire savings and has sufficient funds to run its business to avoid financial distress. In contrast, the low value of the ratio of profitability of a company may allow the company's performance is less effective in treating assets to generate profit which can result in losses that resulted in negative cash flow and the company will experience financial distress(Agustini & Wirawati, 2019),

H2: Profitability positive influence on financial distress.

Leverage Ratio and Financial Distress

The leverage ratio shows the ability of an entity to pay off the current debt and long term debt. If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to greater debt than assets which may cause financial distress, so the effect on the solvency of financial distress.

Andre (in Moleong, 2018)explained that the leverage ratio is a ratio used to measure the extent of the company's assets are financed by debt. According to Sigit (in Curry & Banjarnahor, 2018), Leverage shows the company's ability to meet the obligations of both short term and long term. Analysis of the ratio is necessary to measure the company's ability to repay the debt (short term and long term) if at some point the company in liquidation or dissolved.

If a company uses debt financing is more, it is risky payment difficulties will occur in the future due to debts greater than assets. If this situation can not be resolved properly, the potential for even greater financial distress. Bankruptcy usually begins with the moment of default. This is due to the greater amount of debt, the higher the probability of financial distress. Companies with many creditors will speedily move towards financial distress, compared to companies with a single creditor(Moleong, 2018),

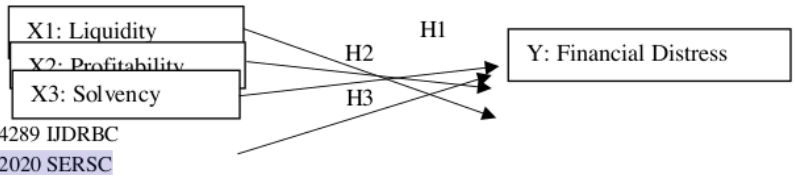
H3: Solvency hurts financial distress.

Inflation and Financial Distress

If inflation increases, the cost of production such as wages and raw materials will be higher also. Manufacturers will raise the selling price of goods. The high selling price of goods will reduce purchasing power. The company's operating income will decline, so will have a direct impact on the company's finances, so that the inflation effect on financial distress. Darmawan (in Earth, 2018)explains that inflation causes the prices of all goods started to increase. This condition will reduce the purchasing power of consumers, so the company has a revenue decrease. If it continues over time, it will be detrimental to the company so that it will lead to financial distress. According to Nurhidayah, Rizqiyah and Rachmawati (in Anggraini, 2017)Inflation rate provides positive significant impact to the financial difficulties in which the lower the sensitivity to inflation, it will hinder the company's financial difficulties, or the greater the rate of inflation, then the likelihood of financial distress will also increase and this means "-Score decreases.

H4: Inflation has a negative effect on financial distress.

Following the theoretical framework that describes this hypothesis.



ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

H4

X4: Inflation

Figure1: Framework

RESEARCH METHODS

Population and Sample Techniques

The population in this study is pharmaceutical industry sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2014 to 2018. Sampling uses a purposive sampling technique, which is a sampling technique with certain considerations or criteria (Sujarweni, 2015). The criteria set are as follows: (1) The company has been listed before January 1, 2014 and has not been delisted from the IDX during the study period; (2) The company provides audited Annual Financial Statements as of December 31 during the study period, which is for 5 consecutive years. The number of companies in the consumer goods industry sector listed on the IDX is 11 companies. Based on data obtained from the IDX website, www.idx.co.id, from a total of 11 companies there are 5 companies that meet the criteria. Because the period taken is 5 years, the number of observations in this study is 25 samples.

Operational Variables

Financial distress (Y)

Measured by using a model of the Altman Z "-Score. The formula for calculating the value of Z "-

Liquidity (X1)

In the present study, the liquidity ratio is proxied by the Cash Ratio (CR).

CR = Cash / Short Term Debt

Profitability (X2)

In the present study, proxied by profitability ratios Return On Equity (ROE).

ROE = Net Income / Shareholders' Equity

Solvency (X3)

In the present study, the solvency ratio is proxied by the Debt to Asset Ratio (DAR).

DAR = Total Debt / Total Assets

Inflation (X4)

This variable was measured by recording the data rate of inflation published by Bank Indonesia (BI) every month starting in January 2014 until December 2018. The monthly data use in this research is that the data have not taken too wide fluctuation range. Then the monthly data are averaged over a year.

Processing and data analysis

Descriptive statistics

Descriptive statistics were used to provide information about the characteristics of the study is to determine the variables financial picture of distress, liquidity, profitability, solvency, inflation.

Selection of Panel Data Regression Model

To select a panel data estimation technique is done in three steps, namely, First, the Chow test is used to choose among methods common effect or fixed-effect method. Second, the Hausman test is used to select the method of fixed effect or random effect method. Third, the Lagrange Multiplier test (LM) which is used to choose among methods common effect or random effect method.

Classic assumption test

Consisting of normality test, autocorrelation test, heteroscedasticity Test, Multicollinearity Test

The goodness of Fit Test

Composed of Coefficient Determination Test (Test ^{2}) and statistics test (t-test)

FINDING AND DISCUSSION

Descriptive Statistics Analysis

Table 1: Descriptive Statistics Variable

	Z_SCORE	CASH_RATIO	RETURN_ON_EQUITY	DEBT_ASSET_RATIO	INFLASI

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

Mean	6.58300	.68120	.21932	.30188	.04660
Std. Dev.	3.850201	.556568	.431946	.147421	.014629
Observations	25	25	25	25	25

The mean (mean) of Z "-Score is 6.58300 while the standard deviation is 3.850201 with 25 observations. Based on the descriptive statistical analysis the average sample is in a state of not bankrupt or does not experience financial distress. The average (mean) and standard deviation of the Cash Ratio is 0.68120 and 0.556568 with 25 observations. From the descriptive statistical analysis above, the average sample liquidity is 68.12% or it can be said to be in a liquid condition. The average value (mean) of ROE is 0.21932 and the standard deviation of 0.431946 with the number of observations of 25 samples. Descriptive statistical analysis of profitability shows the average sample has a percentage of profit from capital of 21.93%. The mean value of the DAR is 0.30188 and the standard deviation is 0.147421 with 25 observations. Descriptive solvability statistical analysis shows the level of liabilities on the average assets of the sample is 30.18%. The average (mean) value of inflation is 0.04660 and the standard deviation is 0.014629 with 25 observations taken.

Results Selection Panel Data Regression Model

Table 2: Results of Panel Data Regression Model Selection

Type Test	Calculate F / Chi-Square Count	Probability	Result
Chow test	18.078174	0.0000	Fixed Effect Model (FEM)
Hausman test	3.903631	0.4192	Random Effect Model (REM)
Lagrange Multiplier test	12.06200	0.0001	Random Effect Model (REM)
Panel Data Regression Models			Random Effect Model (REM)

Based on the table 2 on top of the panel data regression models were used Random Effect Model (FEM).

Analysis of Panel Data Regression Model Random Effect

Table 3: Panel Data Regression Model Random Effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.57480	0.793063	15.85599	0.0000
CR	1.713527	0.292675	5.854717	0.0000
ROE	-0.358295	0.356850	-1.004049	0.3273
DAR	-16.40321	1.684364	-9.738523	0.0000
INFLASI	-17.50268	6.363641	-2.750419	0.0123

Effects Specification	S.D.	Rho
Cross-section random	0.940277	0.8396
Idiosyncratic random	0.410995	0.1604

Weighted Statistics			
R-squared	0.948879	Mean dependent var	1.440279
Adjusted R-squared	0.938654	S.D. dependent var	1.696449
S.E. of regression	0.420177	Sum squared resid	3.530971
F-statistic	92.80666	Durbin-Watson stat	1.465869
Prob(F-statistic)	0.000000		

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

From table 3 panel data regression equation was as follows:

Z_SCORE = 12.57480 + 1.713527*CR - 0.358295*ROE - 16.40321*DAR - 17.50268*INFLASI + [CX=R]

Based on the above equation, the following interpretations of the regression equation are: (1) Constant of 12,57480; meaning that without considering the independent variable, the value of Z "-Score or financial distress is 12.57480; (2) Liquidity regression coefficient (Cash Ratio) of 1.713527; meaning that each increase in Cash Ratio is 1 unit, it will increase Y by 1.713527 units, assuming other variables are considered constant; (3) Profitability regression coefficient (Return On Equity) of -0.358295; meaning that each increase in ROE by 1 unit, it will decrease Y by 0.358295 units, assuming other variables are considered constant; (4) Solvability regression coefficient (Debt to Asset Ratio) of - 16.40321; it means that every DAR increase is 1 unit, it will decrease Y by 16.40321 units, assuming other variables are considered constant; (5) inflation regression coefficient of -17.50268; it means that every increase of inflation is 1 unit, it will increase Y by 17.50268 units, assuming other variables are considered constant.

Classic assumption test
Normality Test Results

Table 4: Jarque-fallow Normality Test Results

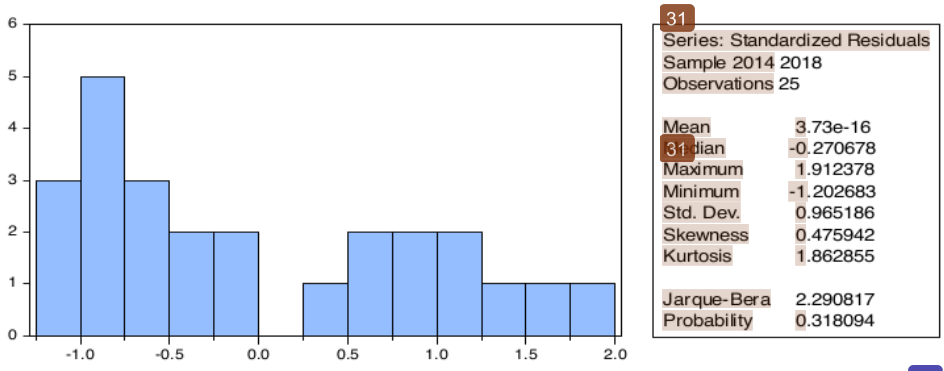


Table 4 shows the results of the regression normality test with a Jarque-Bera statistical value of 2.290817 and a significance probability value of 0.318094> 0.05 means that the assumption of normality is met.

Heterokedasticity Test Results

Heterokedastisitas test is done using the White test. If the probability value is <0.05, it will produce a rejection of H0 which states there is a heterokedasticity problem. Conversely, if the probability value> 0.05, it will produce H0 acceptance which states there is no heterokedasticity problem.

Table 5: White Heteroscedasticity Test Results

Heteroskedasticity Test: White

F-statistic	1.281004	Prob. F(14,10)	0.3527
Obs*R-squared	16.05035	Prob. Chi-Square(14)	0.3103
Scaled explained SS	8.235594	Prob. Chi-Square(14)	0.8767

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

Based on the table above shows that almost all independent variables are above the level of significance (p> 0.05), it can be concluded that there is no heteroscedasticity.

Multicollinearity Test Results

The method for testing the presence of multicollinearity can be seen from the tolerance value or variance inflantion factor (VIF). The limit of tolerance value> 0.1 or VIF value is less than 10, so there is no multicollinearity.

Table 6: Results of the Multicollinearity Test of Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.777609	29.79679	NA
CR	0.152515	5.173002	1.697203
ROE	0.185611	1.630735	1.239826
DAR	2.592205	12.89641	1.773123
INFLASI	141.3869	12.87794	1.113018

The multicollinity test results in table 6. show that all independent variables have a VIF less than 10. So it can be concluded that there is no multicollinity between the independent variables in the regression model.

Test Results of Goodness of Fit

Coefficient of Determination (R Square)

Overall multiple regression test results as can be seen in table 3. shows the adjusted R2 value of 0.938654 which shows that financial distress can be influenced by four independent variables namely liquidity, profitability, solvency, and inflation by 93.87%, and the rest can explained by other variables not explained in the model.

Statistical Test Results (t Test)

The number of observations in this study were 25 and the number of variables was 5, so the degree of freedom was 25 - 5 = 20, and the significance level was 5% in two directions, then the value of the table was 2,086 / -2,086. Interpreted the t test from table 3. above : (1) Liquidity (Cash Ratio) has a tcount> t table (5.854717> 2.086) with a significance level of 0.0000 <0.05. This shows that liquidity has a positive and significant effect on financial distress (Z "-Score) ; (2) Profitability (Return On Equity) has a value-table ≤ t count ≤ table (-2.086 <-1.004049 <2.086) with a significance level of 0.3273> 0.05. This shows that profitability has a negative and not significant effect on financial distress (Z "-Score) ; (3) Solvency (Debt to Asset Ratio) has a t-value <-table (-9.738523 <-2.086) with a significance level of 0.0000 <0.05. This shows that solvency has a negative and significant effect on financial distress (Z "-Score) ; (4) Inflation has a t-value ≤ -table (-2.750419 <-2.086) with a significance level of 0.0123 <0.05. This shows that inflation has a negative and significant effect on financial distress (Z "-Score).

Discussion

Partial test results (t test) show that liquidity measured by Cash Ratio has a positive and significant effect on financial distress (Z "-Score). This result is proved by Prob value. equal to 0.0000, which is smaller than the significance level of 0.05. The company's ability to meet its short-term obligations from the

ISSN: 2005-4289 IJDRBC
Copyright©2020 SERSC

amount of cash funds or cash equivalents available has a positive effect on the level of bankruptcy of the company represented by its indicator, the variable Z ”-Score. This is because the liquidity ratio is a short-term measure, while financial distress is a prediction for the long term.

Partial test results (t test) indicate that profitability as measured by Return On Equity (ROE) has a negative and not significant effect on financial distress (Z ”-Score). This result is proved by Prob value. of 0.3273, which is greater than the significance value of 0.05. The company's ability to generate profits by comparison with capital does not affect the level of bankruptcy of the company represented by its indicator, the variable Z ”-Score. Companies that experience financial distress generally have negative profitability. Profitability shows the efficient and effective use of assets in generating company profits. The company's negative profitability indicates that there is no effectiveness in using company assets to generate net profit. Profitability is the net result of various policies and decisions, where the ratio is used as a measure of the company's ability to benefit from every dollar of sales generated. The greater the profitability, the smaller the probability that the company will experience financial distress.

Partial test results (t test) indicate that the solvency measured by Debt to Assets Ratio (DAR) has a negative and significant effect on financial distress (Z ”-Score). This result is proved by the regression coefficient value of -16.40321 and Prob value. is 0.0000, which is smaller than the significance value of 0.05, which means it shows a negative and significant relationship.

This is because debt is a very highlighted factor for assessing whether a company is healthy or not. If the company cannot utilize its debt properly, it will threaten the sustainability of the company. Vice versa, if the company can optimize its debt well, then the company's survival will be longer and further away from the threat of bankruptcy. The lower the company's ability to pay long-term and short-term obligations, the more likely it is to experience financial distress. Vice versa, the company's ability to pay long-term and short-term obligations is higher, the less likely to experience financial distress.

Partial test results (t test) show that inflation has a negative and significant effect on financial distress (Z ”-Score). This result is proved by Prob value. of 0.0123, which is less than the significance value of 0.05. Financial distress is influenced by high or low inflation rates. In a state of high inflation, pharmaceutical companies do not have the risk to experience financial distress. There is a significant influence between the rate of inflation with financial distress because the inflation rate in the study period looks unstable, there is a big decrease. Besides that, with the different inflation rates, the number of observations that experience financial distress and in a healthy condition remains the same.

CONCLUSION

Based on the data analysis and discussion conducted, the conclusions obtained in this study are the results of partial testing (t test) with the Random Effect Model (REM) method showing that: (1) Liquidity has a positive and significant effect on financial distress. Liquidity that is proxied by Cash Ratio does not affect financial distress because, although most companies have lower availability of cash and cash equivalents compared to their current liabilities, these companies are not in financial distress. Although the availability of cash and cash equivalents is lower compared to its current liabilities, the company still has other current assets such as receivables and inventories so that the company is able to pay off its current liabilities (2) Profitability is the only variable that has a negative and not significant effect on financial distress. Profitability which is proxied by Return On Equity (ROE) does not affect financial distress because, although most companies have a low percentage of profit from capital, these companies are not in financial distress, (3) Inflation has a negative and significant effect on financial distress . Inflation decreases financial distress because the inflation rate tends to be unstable and there is a significant decrease; (4) Solvency has a negative and significant effect on financial distress. Solvency which is proxied by Debt to Asset Ratio (DAR) is one of the causes of companies experiencing financial distress. Companies with high DAR will be more vulnerable to financial distress, where the higher the proportion of debt compared to assets, the possibility of companies experiencing financial distress will be higher.

ISSN: 2005-4289 IJDRBC
Copyright ⓒ 2020 SERSC

REFERENCES

3. Agustini, N. W., & Wirawati, N. G. (2019). Pengaruh Rasio Keuangan pada Financial Distress Perusahaan Ritel yang Terdaftar di Bursa Efek Indonesia (BEI). *E-Jurnal Akuntansi Universitas Udayana*, 254-256.

4. Anggraini, R. (2017). Analisis Profitabilitas, Likuiditas, Leverage, dan Inflasi Dalam Memprediksi Financial Distress pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia. *ASSETS : Jurnal Ilmiah Ilmu Akuntansi, Keuangan dan Pajak*.

5. Curry, K., & Banjarnahor, E. (2018). Financial Distress pada Perusahaan Sektor Properti Go Public di Indonesia. *Seminar Nasional Pakar ke 1 Tahun 2018*, 207-208.

6. Dunia, F. A. (2013). *Pengantar Akuntansi*. Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

7. Hanafi, I., & Supriyadi, S. G. (2018). Prediksi Financial Distress Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *Ekuivalensi*, 46.

8. Hidayat, M. A., & Meiranto, W. (2014). Prediksi Financial Distress Perusahaan Manufaktur di Indonesia. *Diponegoro Journal Of Accounting*, 1-2. Retrieved from Statiskian.

9. Marfungatun, F. (2017). Pengaruh Rasio Profitabilitas, Likuiditas dan Leverage Terhadap Kondisi Financial Distress Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *E-journal S1 AK Universitas Pendidikan Ganesha*, 10.

10. Moleong, L. C. (2018). Pengaruh Real Interest Rate dan Leverage Terhadap Financial Distress. *MODUS*, 72.

11. Muflihah, I. Z. (2017). Analisis Financial Distress Perusahaan Manufaktur di Indonesia dengan Regresi Logistik. *Majalah Ekonomi, 4*, 257.

12. Ningrum, D. A. (2018, 10 19). *4 Perusahaan besar mendadak bangkrut, ini penyebabnya*. Retrieved from merdeka.com: https://www.merdeka.com/uang/4-perusahaan-besar-mendadak-bangkrut-ini-penyebabnya.html

13. Pertiwi, D. A. (2018). Pengaruh Rasio Keuangan, Growth, Ukuran Perusahaan dan Inflasi Terhadap Financial Distress di Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2012 - 2016. *Jurnal Ilmu Manajemen*, 361.

14. Pioh, H. T., Tommy, P., & Sepang, J. L. (2018). Pengaruh Debt to Equity Ratio, Earning Per Share dan Return On Asset Terhadap Nilai Perusahaan Sub Sector Food and Beverages di Bursa Efek Indonesia. *EMBA*, 3020.

15. Priyatno, D. (2013). *Mandiri Belajar Analisis Data Dengan SPSS*. Yogyakarta: MediaKom.

16. Purnomo, P. (2014). Analisis Pengaruh Tingkat Prediksi Financial Distress Terhadap Imbal Hasil Saham pada Sektor Pertambangan di Bursa Efek Indonesia. *Jurnal OE*, 383-384.

17. Ratna, I., & Marwati. (2018). Analisis Faktor-Faktor yang Mempengaruhi Kondisi Financial Distress pada Perusahaan yang Delisting dari Jakarta Islamic Index Tahun 2012-2016. *Jurnal Tabarru' : Islamic Banking and Finance*, 54-55.

ISSN: 2005-4289 IJDRBC
Copyrightⓒ2020 SERSC

18. Saputra, T. I. (2016, February 4). *Makalah Teori Akuntansi - Grand Theory*. Retrieved from Tunggal Ika Saputra: http://tunggalikasaputra.blogspot.com/2016/02/makalah-teori-akuntansi-grand-theory.html

19. Septiadi, A., & Winarto, Y. (2018, 12 27). *Sepanjang 2018, jumlah perkara kepailitan melonjak*. Retrieved from Kontan.co.id: https://nasional.kontan.co.id/news/sepanjang-2018-jumlah-perkara-kepailitan-melonjak?page=all

20. Sujarweni, V. W. (2015). *Metodologi Penelitian Bisnis & Ekonomi*. Yogyakarta: Pustaka Baru Press.

21. Wahyudi, I. (2015, Augustus). *Grand Theory*. Retrieved from Magister Akuntansi: https://magisterakutansi.blogspot.com/2015/08/grand-theory.html

22. Wahyuni, S., Elu, W. B., Prihandini, W., Safaria, S., Riwayati, H. E., Jasman, & Iqbal, M. (2017). *Buku Panduan Penulisan Skripsi Program Studi S1 Manajemen dan S1 Akuntansi Fakultas Ekonomi dan Bisnis Institut Keuangan Perbankan dan Informatika Asia IKPIA Perbanas*. Jakarta: Koperasi Karyawan Institut Perbanas.

23. Widati, L. W., & Pratama, B. A. (2015). Pengaruh Current Ratio, Debt to Equity Ratio, dan Return on Equity untuk Memprediksi Kondisi Financial Distress. *Prosiding Seminar Nasional Multi Disiplin Ilmu & Call for Papers Unisbank (Sendi_U)*.

24. Yustika, Y. (2015). Pengaruh Likuiditas, Leverage, Profitabilitas,Operating Capacity dan Biaya Agensi Manajerial Terhadap Financial Distress. *Jom FEKON*, 4-6.

ISSN: 2005-4289 IJDRBC
Copyrightⓒ2020 SERSC

The Model of Financial Distress in the Pharmaceutical Industry

ORIGINALITY REPORT

34%	29%	21%	16%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	sersc.org Internet Source	5%
2	www.ijbmi.org Internet Source	2%
3	Muhammad Khusni Mubarrok, Mohammad Wasil, I. G. A. Aju Nitya Dharmani. "Predictions of Financial Distress in Consumption Goods Industrial Companies Listed on the Indonesia Stock Exchange in 2016-2018", Quantitative Economics and Management Studies, 2020 Publication	2%
4	Submitted to School of Business and Management ITB Student Paper	1%
5	dspace.lib.uom.gr Internet Source	1%
6	Submitted to Fulbright University Vietnam Student Paper	1%
7	internationalconference.com.my	

	Internet Source	1%
8	www.mejournal.in Internet Source	1%
9	ijisrt.com Internet Source	1%
10	www.trijurnal.lemlit.trisakti.ac.id Internet Source	1%
11	Submitted to Fakultas Kedokteran Gigi Universitas Trisakti Student Paper	1%
12	Submitted to University of Bradford Student Paper	1%
13	link.springer.com Internet Source	1%
14	www.iiste.org Internet Source	1%
15	www.ijbel.com Internet Source	1%
16	paramita.co.id Internet Source	1%
17	www.investopedia.com Internet Source	1%
	Submitted to Universitas 17 Agustus 1945	

18	Surabaya Student Paper	1%
19	Submitted to Sultan Agung Islamic University Student Paper	1%
20	repository.unpas.ac.id Internet Source	<1%
21	www.archives.palarch.nl Internet Source	<1%
22	Euodia Stefani Handiyanti. "The Effect of Return On Assets, Current Ratio, Debt To Equity Ratio on Income Growth in Automotive Companies Registered in Indonesia Stock Exchange", Quantitative Economics and Management Studies, 2020 Publication	<1%
23	sloap.org Internet Source	<1%
24	Shofi Malina, I Gede Arimbawa, Ani Wulandari. "The Effect of Return On Assets and Return On Equity To Earning Per Share and Price Book Value In Sub-Sectors of Construction Companies Listed In Indonesia Stock Exchange In 2015-2018", Quantitative Economics and Management Studies, 2020 Publication	<1%

25	financetp.fa.ru Internet Source	<1%
26	Yeterina Widi Nugrahanti, T. Sutrisno, Aulia Fuad Rahman, Endang Mardiati. "Do firm characteristics, political connection and corporate governance mechanism affect financial distress (Evidence from Indonesia)", International Journal of Trade and Global Markets, 2020 Publication	<1%
27	Yanuar Ramadhan, Marindah Marindah. "Financial Distress Analysis in an Indonesian Textile Company", KnE Social Sciences, 2021 Publication	<1%
28	repositori.usu.ac.id Internet Source	<1%
29	repository.uinjkt.ac.id Internet Source	<1%
30	Submitted to Universitas Diponegoro Student Paper	<1%
31	e-repository.perpus.iainsalatiga.ac.id Internet Source	<1%
32	Submitted to Universiti Malaysia Terengganu UMT Student Paper	<1%

33	mafiadoc.com Internet Source	<1%
34	journalajeba.com Internet Source	<1%
35	Submitted to De La Salle University - Manila Student Paper	<1%
36	Submitted to INTI International University Student Paper	<1%
37	. Harjadi, Pardomuan Sihombing. "Financial Distress Analysis of Registered Insurance Companies in Indonesia Stock Exchange 2015-2019", European Journal of Business and Management Research, 2020 Publication	<1%
38	Submitted to CSU Northridge Student Paper	<1%
39	Submitted to Colorado Technical University Student Paper	<1%
40	e-journal.iainpekalongan.ac.id Internet Source	<1%
41	www.dicdbm.com Internet Source	<1%
42	Dina Nurhikmawaty, Isnurhadi , Marlina Widiyanti. "The Effect of Debt to Equity Ratio	<1%

and Return on Equity on Stock Return with Dividend Policy as Intervening Variables in Subsectors Property and Real Estate on Bei", Open Journal of Business and Management, 2020
Publication

43	eprints.umm.ac.id Internet Source	<1%
44	media.neliti.com Internet Source	<1%
45	www.ijstr.org Internet Source	<1%
46	www.ssbfnet.com Internet Source	<1%
47	E. A. Onatuyeh, I. Ukolobi. "Tax Aggressiveness, Corporate Governance and Audit Fees: A Study of Listed Firms in Nigeria", International Journal of Financial Research, 2020 Publication	<1%
48	Submitted to Universitas Pendidikan Indonesia Student Paper	<1%
49	Yuli Anwar. "The Effect of Working Capital Management on Profitability in Manufacturing Company Listed in Indonesia Stock Exchange", The Accounting Journal of Binaniaga, 2018	<1%

	Publication	
50	www.mdpi.com Internet Source	<1%
51	www.simulation.investopedia.com Internet Source	<1%
52	Febricia Frontalin Kumendong, Francis Hutabarat. "ANALYSIS FACTOR OF FINANCIAL DISTRESS: AN EVIDENCE OF CABLE SUB SECTOR IN INDONESIA FROM YEAR 2016-2017", Abstract Proceedings International Scholars Conference, 2019 Publication	<1%
53	Muhammad Tesar, Lidiyawati .. "Conservatism Determinants: Evidence from Indonesia Manufacturing Sector", KnE Social Sciences, 2019 Publication	<1%
54	Submitted to Universiti Teknologi MARA Student Paper	<1%
55	journal.unpar.ac.id Internet Source	<1%
56	jurnal.stie-aas.ac.id Internet Source	<1%
57	vdocuments.mx Internet Source	<1%

58	Submitted to Universitas Jenderal Soedirman Student Paper	<1%
59	Submitted to University of California, Merced Student Paper	<1%
60	allbookkeepingsolutions.com.au Internet Source	<1%
61	dspace.uii.ac.id Internet Source	<1%
62	www.termpaperwarehouse.com Internet Source	<1%
63	Endah Satriani, Yulis Diana Alfia. "Influence of Profitability, Solvability, and Company Growth on Going Concern Audit Opinions", Jurnal AKSI (Akuntansi dan Sistem Informasi), 2020 Publication	<1%
64	docplayer.info Internet Source	<1%
65	ocs.upnvj.ac.id Internet Source	<1%
66	www.scitepress.org Internet Source	<1%
67	Fika Andriani, Pardomuan Sihombing. "Comparative Analysis of Bankruption Prediction Models in Property and Real Estate Sector	<1%

Companies Listed on the IDX 2017-2019", European Journal of Business and Management Research, 2021
Publication

68	Suroto Suroto, Ch. Asta Nugraha. "Effect of Corporate Social Responsibility Disclosures and Financial Information Against Abnormal Return (Empirical studies on food and beverage sub-sector manufacturing Companies listed on the Indonesia Stock Exchange for the period 2013 - 2017)", Media Ekonomi dan Manajemen, 2019 Publication	<1%
69	Zakharia Sabatian, Francis M. Hutabarat. "THE EFFECT OF FRAUD TRIANGLE IN DETECTING FINANCIAL STATEMENT FRAUD", Jurnal Akuntansi, 2020 Publication	<1%
70	eudl.eu Internet Source	<1%
71	ijpbaf.org Internet Source	<1%
72	worldwidescience.org Internet Source	<1%
73	"Comprehensible Science", Springer Science and Business Media LLC, 2021 Publication	<1%

74	"Project Financing and the International Financial Markets", Springer Science and Business Media LLC, 1999 Publication	<1%
75	Ikpesu Fredrick. "Firm specific determinants of financial distress: Empirical evidence from Nigeria", Journal of Accounting and Taxation, 2019 Publication	<1%
76	aimos.ugm.ac.id Internet Source	<1%
77	idoc.pub Internet Source	<1%
78	lib.ibs.ac.id Internet Source	<1%
79	www.aessweb.com Internet Source	<1%
80	www.coursehero.com Internet Source	<1%
81	www.iosrjournals.org Internet Source	<1%
82	www.scribd.com Internet Source	<1%
83	www.slideshare.net Internet Source	<1%

84	Edward I. Altman, Edith Hotchkiss. "Corporate Financial Distress and Bankruptcy", Wiley, 2005 Publication	<1%
85	repository.mercubuana.ac.id Internet Source	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		