PREDICTOR OF FINANCIAL DISTRESS IN TEXTILE AND GARMENT INDUSTRY LISTED IN IDX

1st Pramesta Khusuma Daneswari, 2nd Drs. Imron HR, M.M.
Management Department
Indonesian College of Economics
Jakarta, Indonesia
pramestakd@gmail.com; imron_hr@stei.ac.id

Abstract - *This research aims to predict financial distress in the Textile and Garment Industry registered in IDX in 2015-2019. The independent variables of this study are liquidity performance, solvency peformance, activity performance, profitability performance, and company size. The population of this study is a Textile and Garment Development board Company Registered in IDX. The sample is determined based on pusposive sampling method, with the number of samples as many as 5 textile and garment companies, so the total observation of this research data is as many as 100 observations. Data analysis techniques using logistics regression analysis with the E-Views10 application help tool. Based on the results of the liquidity performance variable determination coefficient, the current ratio has negative results and has no effect on financial distress in the textile and garment industries listed in IDX 2015-2019. Variable solvency performance projected by debt to equity ratio obtains negative results and has no effect on financial distress in the textile and garment industries listed in IDX in 2015-2019. The variable performance of activities projected by total asset turnover obtained significant negative results limited financial distress in textile and garment indutri registered in IDX in 2015-2019. Variable profitability performance projected by return on equity has a significant negative impact on financial distress in the textile and agrment industries listed on IDX in 2015-2019. and Variable size of the company projected by the log naturan total assets obtained a significant positive result on financial distress in the textile and garment industries listed in IDX in 2015-2019.*

Keywords: **CR, DER, TATO, Size, *Financial Distress***

I. INTRODUCTION

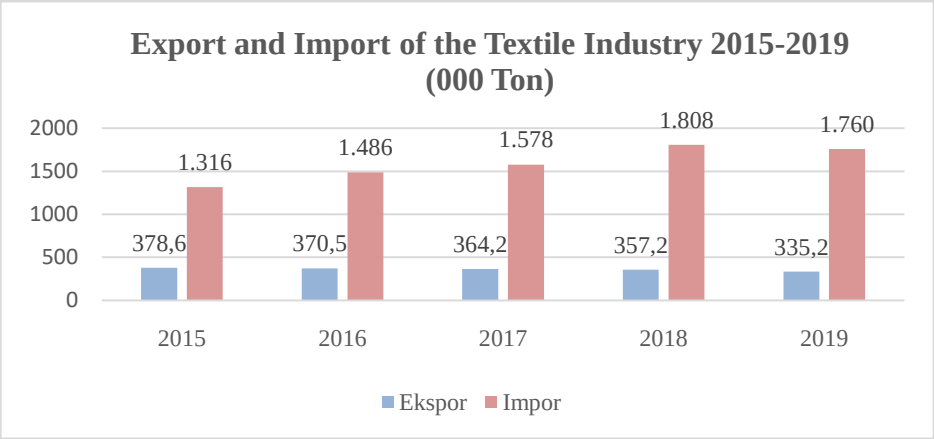
The development of the textile industry is often not in line with what is expected, the condition of old textile machines can be the beginning of problems and the intense global competition that is currently happening can cause further obstruction of the development of the textile.

The current competition is due to the large number of imported textile products entering the domestic market, so that the textile industry players must be able to maintain product quality and sales in order to be able to compete with imported products. However, the fact is that the current intense competition is making industry players overwhelmed by being unable to compete with imported products. The global textile market, which is still dominated by China and the intense competition from other countries in Southeast Asia, such as Vietnam, has created a lot of work that must be addressed by the government and business actors Kontan (2018).

Imported products that enter the country are none other than due to the trade war between the United States and China which makes foreign products enter the domestic market. According to the Coordinating Minister for Economic Affairs in a press release Thursday, October 31, 2019, said in the midst of a heated trade war between the United States. and China. This is because due to the unclear direction of the trade war, many Chinese products are targeting other markets, especially Indonesia Kemenperin (2019).

The current tight competition, if not handled quickly, could endanger the financial condition of the domestic textile industry. Because, if this happens over the years it can lead to decreased sales so that the company's profits also decline. The declining profit condition of the company can also make it difficult for the company to pay installments and the company's inability to pay interest on debt expenses. If this competition is not resolved, it can endanger the company's financial condition and can lead to financial distress.

Image 1.1.2015-2019 Textile Industry Export and Import Data Figures



Based on the image of export and import data of textile industry above can be seen that the export of textile industry decreases every year, this can be caused by the loss of competition and trade war that occurred between the United States and China so that domestic products have difficulty finding a market to export their products. While imports of textile industry increased from 2015 - 2018, this was the result of the trade war that caused many Chinese products to enter the Indonesian market, but in 2019 textile imports decreased. Although imports decreased in 2019, Indonesia's exports could not beat the imports.

The effect of trade competition not only makes textile imports increase, but also gives the effect of decreasing domestic production due to the loss of competitiveness.

With the occurrence of these conditions make textile industry players worried about the condition and sustainability of their business, because of the difficulty of competing with imported products from other countries. Tight competition conditions with other countries can cause the company to experience a decrease in production which can also lead to a decrease in the amount of profit earned. If the company's profit decreases it can jeopardize the financial condition of the company because the company will have difficulty in financing its operations, as well as difficulty in paying its obligations. If a company has experienced such conditions then it can be said that the company is experiencing financial difficulties or financial distress.

To predict financial distress in the company can be seen from the financial statements by analyzing financial performance using various financial ratios. However, it is not certain which ratio is most appropriate in predicting financial distress. And there

are differences in results between previous researchers and other previous researchers. Therefore the author is interested in writing under the title "Predictor of Financial Distress in textile and garment industry listed in IDX".

II. LITERATURE REVIEW

2.1. Financial Statements

Financial statements are the result of accounting percentages that can be used as a tool to communicate financial data or activities to interested partiesHery (2016:3). Standardized financial statements present all posts in percentage. The posts on the financial position statements are presented as a percentage of the assets and the posts in the income statement are presented as a percentage of the sales Ross *et al*., (2015:59).

Types of financial statements according to Zutter dan Smar(2019:125):

1. Profit and loss statement, which provides a financial summary of the company's operating results during the specified period, usually in the quarter or one year. In the profit and loss statement contains the profit or loss obtained by the company..
2. Balance sheet, presents a summary of the company's financial position report at any given time. Balance sheets make a clear distinction between short-term and long-term liabilities. In the balance sheet, focusing on the company's assets, liabilities and capital. The company's assets include cash, inventory, receivables, land, machinery, equipment and so on. Assets are divided into two, namely current assets and tetep assets.

2.2 Financial Performance Measurement

By using a review of financial performance the company can compare and examine the relationships between different parts of financial information. Then, the remaining items are percentages, multiplieres or time periods Ross *et al*., (2015:62) and according toSartono (2018:113) financial performance measurement, which covers financial ratio analysis, is an analysis of weaknesses and strengths in the financial field that will be very helpful in assessing past management achievements and their prospects in the future. Performance can indicate whether the company has sufficient cash to meet its financial obligations, a fairly rational amount of receivables, inventory management efficiency, good investment expenditure planning, and a sound capital structure so that the goal of maximizes shareholder prosperity can be achieved. Measurement of financial performance can be done with various ratios as follows:

1. Liquidity Performance

The company's liquidity performance reflects the ability to meet its short-term obligations at maturity. In general, the company's greater liquidity will be easier to pay its bills and less likely to go bankrupt. This performance may provide an early warning sign that the company has a cash flow problem that could cause the business to fail Zutter & Smart (2019:138).

Keown *et al.,* (2017:85) Liquidity performance refers to the ability of an asset to be quickly converted into cash without causing a decrease in the value of the asset, while illiquid assets cannot be easily converted into cash or can be sold quickly at a significant discount. Liquidity is important, because supporting liquid assets can reduce the company will experience financial distress.

Liquidity performance in this study uses current ratio (CR) as a measure of financial distress, which can be formulated as follows: Ross *et al.,* (2015:64)

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}} \text{…...…….……..} \quad (1)$$

For companies, a high current ratio means having a good level of liquidity, but it can also mean that the company does not use its cash and assets efficiently. While the low current ratio can be indicated to have financial problems so that it cannot meet its short-term obligations.

2. Solvency Performance

According to Ross *at al.,* (2015:66) Long-term solvency performance is intended to address the company's long-term ability to meet its obligations, or, more generally, its financial obligations. Gitman dan Zutter (2015:124) the more fixed debt a company uses, the greater the risk and return. And according toBrigham dan Houston (2018:127) debt ratio becomes the main key in the company, because if the company borrowed too much funds in the past and the debt of this company can lead to bankruptcy.

Solvency performance in this study usesdebt to equity ratio (DER) as a measure of financial distress, which can be formulated as follows: Ross *et al.,* (2015:67)

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}} \qquad \text{…….. (2)}$$

The higher the DER value generated means that the higher the amount of debt the company has to the creditors, thus making the company have to pay off the obligations. The higher the amount of debt, the higher the rate of return because the company also has to pay interest expense on the loan obtained. In addition, the higher der value can indicate that there are problems in the company's finances because, a low proportion of its own capital to finance all the activities of the company.

3. Activity Performance

According to Sartono (2018:118) activity performance shows how resources have been utilized optimally, then by comparing activity performance with industry standards, it can be known the level of efficiency of companies in the industry. Ross *et al.,* (2015) Activity ratio is often referred to as asset utilization ratio can be interpreted as a measure of the turnover rate. Activity performance can describe how efficient or intensive a company is in utilizing its assets to generate sales.

Gitman dan Zutter (2015:121) Activity ratio measures the speed of various accounts covered in sales or cash, inflows or outflows. The activity ratio measures how efficiently the company operates along various dimensions such as management, inventory, disbursements, and collection.

Activity performance in researchers used the Ratio of Total asset turnover (TATO) as a measure of financial distress, which can be formulated as follows: Ross *et al.,*(2015:71)

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{Total Asset}} \text{……...……. (3)}$$

The greater the value of tattoos produced is indicated semaikin good because, means the total turnover of assets owned by the company is faster and efficient in generating sales.

4. Profitability Performance

Profitability performance is used to measure how efficiently a company leverages its assets and manages its operationsRoss*at al*., (2015:72). Profitability is the company's ability to earn profit in relation to sales, total assets as well as its own capital. with demikiaian for long-term investors will be very contingent with this profitability analysis for example shareholders will see the finances that will actually be received in the form of dividends Sartono (2018:122).

The company's high profit can reflect that the company has been effective and efficient both in carrying out its operations and utilizing its assets and equity. The higher

the profit generated by the company, the less likely the company is to experience financial distress.

Profitability performance in this study uses return on equity (ROE) as a measure of financial distress, which can be formulated as follows: Ross *at al*., (2015:73)

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Equity}} \qquad \text{…….……(4)}$$

The greater the roe value generated means the greater the ability of equity to make a profit so vice versa, if the roe value generated is small means the ability of the sale to make a profit. The amount of ROE produced, the smaller the company is experiencing financial distress.

5. Firm Size

The size of the company (size) is a scale that can describe the size of the company. To measure the size of the company (size) can be seen from the total assets owned by the company. In this study, the size of the company (size) was measured by natural logs of total assets aimed at reducing fluctuations in excess data Zharifah dan Majidah(2019).Firm size (size), can be formulated as follows:

$$\text{Size} = \text{Ln (Total Aset)}$$

With a natural log of total assets, it can be known if the company has a high total asset then it can be a signal to investors to make investments and to creditors to provide credit loans.

2.3. *Financial Distress*

According to Sartono (2018:114) predictions about companies experiencing financial ditress that later went into bankruptcy is an important analysis for interested parties such as creditors, investors, regulatory authorities, auditors and management. According to Ross *et al*., (2016:104) when the value of a company's assets is equal to the value of its debt, economically the company has gone bankrupt because its equity no longer has value. At very high levels of debt, the possibility of financial difficulties becomes a serious and ongoing problem for the company so that the benefits of funding using debt may be lower than the compensation of the cost of financial difficulties.

Platt dan Platt (2002) in financial distress is a condition where the company's finances are in an unhealthy state or in crisis, in other words financial distress is a condition where the company has financial difficulties to meet its obligations. According to Agostini (2018:7) financial distress is a condition in which the liquidity of the company's total assets is less than the total value of creditor claims, lower operational flows than financial costs and market value that continues to fall.

According to Altman *et al*., (2019:8) companies experiencing financial distress experience a lack of cash flow necessary to meet their obligations.There are three types of financial difficulties according toAltman *et al*, (2019:3) among others as follows:

1. Economic Failure, is a condition where the rate of return is lower than the capital invested and the company's income is insufficient to cover the company's costs.
2. Insolvency, is a term that describes the company's negative performance such as lack of liquidity, total liabilities exceeding the fair valuation of total assets and unable to meet its debts at maturity.
3. Default, referring to the condition of the company that made the loan but violated the payment agreement with the creditor, as specified in the contract with the lender. Breaking agreements often leads to renegotiation rather than a request to

immediately pay off a loan, and usually this signifies the company's poor performance.

In this study, researchers used interest coverage ratio (ICR) as a financial distress measuring instrument. According toAsquith *et al*., (1994) that this ratio is a comparison between earnings before interest and tax or operating profit (EBIT) and interest expense. This ratio represents the amount of profit before interest and tax or operating profit to pay interest expense on company loans. According to Asquith *et al*., (1994) Interest Coverage Ratio can be formulated by:

$$\text{ICR} = \frac{\text{Earning Before Interest Tax (EBIT)}}{\text{Interest Expense}} \text{.....(5)}$$

Description:
Zero (0) = ICR > 1 does not experience financial distress
One (1) = ICR < 1 experiencing financial distress

According to Ayu*at al*., (2017) ICR demonstrates the company's ability to make interest payments it has. Powered byAgustini dan Wirawati, (2019) stating that financial distress can be characterized by the company's inability to pay debts at maturity.

Based on the description of the experts above, to shave financial distress can be used interest coverage ratio (ICR). This ratio measures the ability of earnings before interest and taxes that companies have to pay interest expense on debts borrowed by the company. If the ICR result is less than 1, then the company is considered to be experiencing financial distress due to the ability of profit before interest and low corporate tax to pay interest expense. Whereas if the ICR result is more than 1, then the company is considered to have no financial distress due to the ability of profit before interest and high corporate taxes to pay interest expense on debts held by the company.

2.4. Causes of *Financial Distress*

The cause of financial distress can occur from internal and external factors of the company, according to Sulastri dan Zannati (2018) internal factors causing financial distress are cash flow difficulties, occurring when the company receives revenue from operating results but the revenue is not enough to cover the operating expenses arising from the company's operating activities and operating losses, occurring due to operating expenses more than the company's revenue. When this happens it can lead to negative cash flow in the company.

External factors causing financial distress according toSupriati *et al*., (2019) can be caused by government policies that increase tax rates, increase loan rates and fluctuate currency exchange rates against other countries' currencies. These external factors can cause an increase in business expenses that must be borne by the company.

And according to Darmansyah(2016) internal factors of financial distress include financial and non-financial conditions. Financial factors such as large amounts of debt, dividend policies and so on. Non-financial factors such as errors in location and market selection. While external factors that affect financial distress include natural disasters, lack of demand, competition, changes in market interest and cultural changes.

According toAltman *et al*., (2019:8) there are six factors that play a big role in predicting and avoiding financial distress conditions, including the following:

1. Poor operating performance and high financial leverage
   The company's poor operating performance can result from many factors, such as poor acquisition, international competition, overcapacity, new channels of competition in an industry, commodity price shocks, and industry cycles. High financial leverage exacerbates the effect of poor operating performance on the company's failure rate.
2. Technological innovation

Technological innovation creates negative surprises for uninformed companies. The arrival of new technologies often threatens the survival of companies that have related technology, but are less competitive.

3. Liquidity and funding risk
   Companies that are unable to complete a loan at maturity due to lack of capital to pay it.
4. Relatively high rate of formation of new businesses in a given period.
   The formation of new businesses is usually based on being optimistic about the future. But businesses have a much greater frequency of failures than more experienced entities, and failure rates can be expected to increase year on year.
5. Deregulation of key industries
   Repeal or reduction of regulations on key industry regulations that could encourage more companies to open and close.
6. Unforeseen liabilities
   The Company experienced this due to uncertain obligations within the company. In this case there are companies that overcome or inherit uncertain liabilities through acquisitions.

2.5. Hypothesis Development

H1. Presumed Liquidity Levels Affect Financial Distress.
H2: Presumed Solvency Levels Affects Financial Distress.
H3: Presumed Activity Levels Affect Financial Distress.
H4: Presumed Profitability Levels Affect Financial Distress
H5: Presumed Firm Size (size) Levels affects Financial Distress
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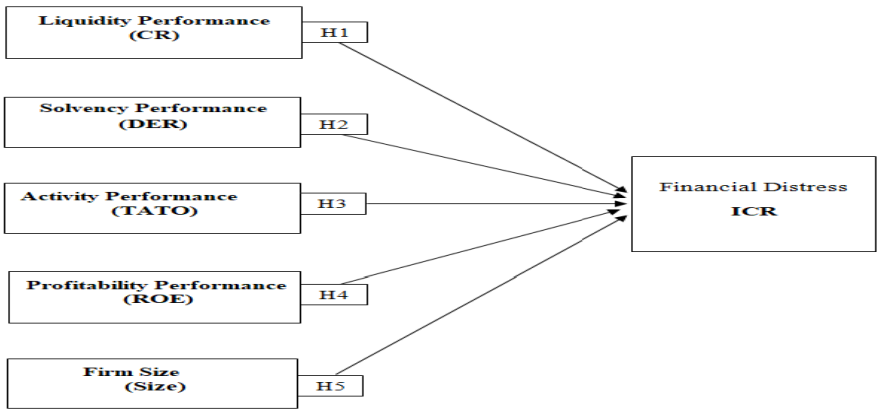
2.6. Conceptual Framework



III. RESEARCH METHODS

3.1 Population Research

The population in this study is a development board company in the textile and garment industry listed on the Indonesia Stock Exchange in 2015-2019.

3.2.Research Samples

Sampling techniques using purposive sampling method with criteria as follows:

1. The companies studied are companies engaged in the textile and garment sector listed on the Indonesia Stock Exchange.
2. The company has conducted an Initial Public Offering (IPO) prior to 2015.

3. The company has a complete accumulation of financial statements in all financial statements such as the contents of the financial statements, profit and loss, cash flow and financial statements records and published them on the Indonesia Stock Exchange in 2015-2019.

Based on purposive sampling method with criteria, obtained 5 samples of the company that will be used for research and processed to obtain results in this study, consisting of ARGO, ERTX, SSTM, TRIS, and UNIT.

3.3. Data Methods and Data Collection Methods

The type of data used is secondary data in the form of financial statements of textile and garment sector companies listed on the Indonesia Stock Exchange in 2015-2019. Secondary data in the financial statements taken in the form of strong accumulated financial statements include profit and loss statements, balance sheets and cash flow statements published from 2015-2019 which can be obtained from the websites of each company, www.idx.co.id and www.ticmi.co.id.

Data collection techniques used to obtain data in this research are documentation techniques.

3.4. Data Analysis Method

1. Data Processing Methods

Data processing methods in this study using computer devices and Microsof Excel as well as the help of data processing programs.

The regression model in this study uses logistic regression because in this study tested the probability of the occurrence of bound variables can be predicted with free variables. However, the normal multivariate assumption of distribution cannot be met because the free variable is a mixture of continuous (metric) and categorical (nonmetric) variables. In this case it can be analyzed with logistic regression because there is no need to assume normality on its free variables Ghozali & Ratmono (2018:282).

2. Descriptive Static Analysis

Descriptive statistical analysis in this study is used to describe and to find out the results of minimum, maximum, mean, median, and standard deviation from independent variables namely current ratio, debt to equity ratio, activity performance (total asset turnover), and profitability performance (retun on equity) and firm size.

3. Assessing Fit Models(*Hosmer & Lemeshow Goodness-of-fit test model*)

Hosmer & Lemeshow used to test the zero hypothesis (H0) that there is no difference between the model and the data so that the model can be said to be fit Ghozali & Ratmono (2018:289).

The basis of the decision-making test Hosmer & Lemesshow Godness-of-fit-modelt is that if less than 0.05 then the zero hypothesis is rejected which means there is a significant difference between the model and its observation value so that the goodness of fit model is not good, because the model can not predict the value of observation. And if the zero hypothesis is accepted, there is no significant difference between the model and its observation value so that the goodness fit model is good, because the model can predict its observation value.

4. Accuracy of Prediction

Accuracy of prediction is used to calculate the estimated correct and wrong value (incorrect) in two predicted values, namely the company experiencing financial distress is given the number 1 and non-financial distress companies are given the number 0. The greater the correct predisposition accuracy value, the better the predictor success.

5. Logistic Regression Analysis

This method is a tool to test the probability of the occurrence of predictable dependent variables with their independent variables. Logistic regression can also be called binary response regression model because dependent variables are measured on a nominal scale of two categories Ghozali dan Ratmono (2018:282).

Dependent variables in this study use dummy/binery variables, which is to determine whether the company is experiencing financial distress conditions or not. Dummy variables generally use categories expressed with numbers 1 and 0. Dummy value 1 (included group) means to be in financial distress condition and nila dummy 0 (excluded group) means not in financial distress condition.

Dependent variables in this study are proxyed with interest coverage ratio. While the independent variables in this study use financial performance. The financial performance includes, liquidity performance that is proxies with current ratio, solvency performance that is proxided with debt to equity ratio, performance of activities that are projected with total asset turnover, profitability performance is proxyed with return on equity and the size of the company is proxyed with size.

Based on the problem formulation and theoretical framework described above, the model used is as follows:

$$\text{Ln}\ \frac{\text{P}}{1\text{ - P}} = \propto\ + \beta 1\text{CR} + \ \beta 2\text{DER}\ + \ \beta 3\text{TATO} + \beta 4\text{ROE}\ + \beta 5\ \text{SIZE} + \epsilon \ldots\ldots\ldots\ldots\ldots\ (6)$$

Dimana:

Ln $\frac{\text{P}}{1-P}$	: Probability of occurrence of financial distress (variable dummy, 1 if experiencing financial distress, 0 if not experiencing financial distress)
$\propto$	: Constant Regression
$\beta 1$	: Coefficient of RegressionCurrent Ratio
$\beta 2$	: Coefficient of RegressionDebt to Equity Ratio
$\beta 3$	: Coefficient of RegressionTotal Asset Turnover
$\beta 4$	: Coefficient of Regression Return on Equity
$\beta 5$	: Coefficient of Regression Size
CR	: Liquidity Performance(*Current Ratio*)
DER	: Solvency Performance(*Debt to Equity Ratio*)
TATO	: Activity Performance(*Total Asset Turnover*)
NPM	: Profitability Performance(*Return on Equity*)
Size	: Firm Size

6. Hypothesis Testing

1. Mc Fadden R-Squared

To assess the goodness of fit the logistics model can be used McFadden R-squared (R^2). The higher the Value of McFadden R-Squared (R^2) indicates that the greater the variability of dependent variables that will be described by independent variables Ghozali dan Ratmono2018:297). So the higher the value of McFadden R-Squared can be said to be good and fit with the data to be tested.

2. Log Likehood

The smaller log likehood value means the better, because there is a possibility of errors in predicting a small semkin. In addition, the smaller log likehood value can indicate a good model, so that the model can be said to be fit or match the data.

3. Simultaneous Significance Test/F(*Omnibus Test of Model Coefficient*)

Statistical test F is used to indicate whether all independent variables included in the model have a simultaneous or shared influence on dependent variables Ghozali & Ratmono (2018:56).

4. Individual Significance Test/t (Regression Coefficient Test)

Statistical test t is used to show how far independent variables affect their depen variables by assuming other independent variables are constant Ghozali & Ratmono (2018:57).

IV. RESEARCH AND DISCUSSION RESULTS

4.1 Descriptive Statistical Analysis

Table 1. Data Statistics Analysis Results

	FD	CR	DER_M	TATO	ROE	SIZE
Mean	0.380000	1.112798	4.88849	0.504385	0.046811	27.30583
Median	0.000000	1.070400	3.83000	0.349250	0.025050	27.17555
Maximum	1.000000	2.877500	12.8170	1.496900	0.451200	28.36470
Minimum	0.000000	0.095900	0.50660	0.072800	-0.134000	26.75810
Std. Dev.	0.487832	0.646424	3.89848	0.393140	0.094627	0.437074
Observations	100	100	100	100	100	100

Observation data was taken from 5 financial statements of textile and garment sector development board companies listed on the IDX accumulated quarters for 5 consecutive years in the period 2015-2019 so that 100 observation data were obtained. The results of descriptive analysis are described as follows:

Liquidity variables are proxies with a current ratio indicating a maximum value of 2.8775 occurring in PT. Sunson Textile Manufacture, Tbk and minimum value of 0.0959 occurred in PT. Argo Pantes, Tbk. This means that every Rp 1 current obligation of the company is guaranteed with Rp 2.87. This value shows that the company is able to pay its short-term debt well, because the guarantor of the debt is greater than the debt it has. The average value of the current ratio is 1.112798 and the standard deviation is 0.646424. The standard deviation value is less than the average value, this indicates that the level of volatility or risk level of deviation from the current ratio is low.

Solvency variables are proxied with a debt to equity ratio indicating a maximum value of 12.8170 occurring in PT. Nusantara Inti Corpora, Tbk and a minimum value of 0.9059 occurred in PT. Sunson Textile Manufacture, Tbk which means every financing of Idr 1 equity of the company using financing by debt of Rp 12.81. This value indicates that the company's equity is financed more by debt, because the company owes more than the equity it owns. The average debt toequity ratio is 4.88849 and the standard deviation is 3.89848. The standard deviation value is less than the average value, indicating that the level of volatility or risk level of deviation from the debt toequity ratio is low.

Activity variables are proxyed with total assets turnover indicating a maximum value of 1.4969 occurring in PT. International Trident, Tbk and a minimum value of 0.0728 occurred in PT. Nusantara Inti Corpora, Tbk which means that every 1 total asset is rotated for the company's activities, generating sales of 1.49 times a year. This value indicates that the company is able to use its total assets well, because the sales generated are higher than the turnover of its total assets. The average total asset turnover was 0.5043 and the standard deviation was 0.3931. The standard deviation value is less than the

average value, this indicates that the level of volatility and risk of deviation and low total asset turnover.

Variable profitability is proxyed with return on equity indicating a maximum value of 0.4512s in PT. Argo Pantes, Tbk and a minimum value of -0.1340 occurred in PT. Sunson Textile Manufacture, Tbk which means Rp 1 total equity of the company is able to generate a net profit of Rp 0.4512. This value indicates that the company is less able to generate a net profit from the total equity held, since the value of good profitability is close to 1. The average return on equity is 0.0488 and the stadar deviation is 0.0946. The standard deviation value is higher than the average value, this indicates that the level of volatility and the level of risk deviation from the high retun on equity.

The company size variable that is proxyed with size shows the maximum value of Rp 2 Trillion occurred in PT. Argo Pantes, Tbk and a minimum value of Rp 417 billion occurred at PT. Nusantara Inti Corpora, Tbk. The larger the size of the company, the greater the total assets owned by the company, so the possibility of the company experiencing financial distress is smaller. The average size value is 27.3058 and the standard deviation value is 0.4370. The standard deviation value is less than the average value, this indicates that the level of volatility and the risk level of deviation from the low size.

4.2 Hosmer Feasibility Test & Lemeshow Goodness-of-fit test model

Table 2. Hosmer Test Results & Lemeshow Goodness-of-fit test model

	Quantile of Risk		Dep=0		Dep=1		Total	H-L
	Low	High	Actual	Expect	Actual	Expect	Obs	Value
1	0.0001	0.0080	10	9.96817	0	0.03183	10	0.03193
2	0.0083	0.0372	10	9.80083	0	0.19917	10	0.20322
3	0.0391	0.0921	10	9.28364	0	0.71636	10	0.77164
4	0.0949	0.1291	8	8.91856	2	1.08144	10	0.87481
5	0.1336	0.1987	9	8.35985	1	1.64015	10	0.29887
6	0.2102	0.3735	7	7.28273	3	2.71727	10	0.04039
7	0.3835	0.5788	3	5.18526	7	4.81474	10	1.91277
8	0.6123	0.8877	4	2.59665	6	7.40335	10	1.02446
9	0.8951	0.9855	1	0.55916	9	9.44084	10	0.36813
10	0.9878	0.9989	0	0.04516	10	9.95484	10	0.04536
		Total	62	62.0000	38	38.0000	100	5.57158
H-L Statistic			5.5716		Prob. Chi-Sq(8)		0.6951	
Andrews Statistic			34.7929		Prob. Chi-Sq(10)		0.0001	

To test the feasibility of regression models in this study can be seen from the probablitas value ofChi-Square Andrews & Hosmer Lemeshow. If the probability value of Chi-Square Andrews & HosmerLeshow is less than 0.05 then the zero hypothesis (H0) is rejected, which means there is a significant difference between the model and its observation value so that the Andrews & Hosmer Lemeshow of Fit Model is not good, because the model cannot predict its observation value. Conversely, if the probability value of Chi-Square Andrews & Hosmer Lemeshow is more than 0.05 then hypothesis zero (H0) is accepted, which means there is no significant difference between the model and its observation value so that Andrews & Hosmer Lemeshow of Fit Model is good, because the model is able to predict its observation value.

Based on table 2. indicates the result that the probability of chi-square andrews static value is less than 0.05 i.e. 0.0001 < 0.05 so that the zero hypothesis (H0) is rejected, however, when viewed from Hosmer Lemeshows Chi-Square statistic probability is more than 0.05 which is 0.6951 > 0.05 so that zero hypothesis (H0) is accepted and it can be

said that the model is fit or matches the data which means the model is able to predict its observation value. Although the probability value of Andrews statistic is rejected, the probability of Hosmer Lemeshow statictik cannot be rejected or in other words accepted so that this regression model remains feasible for further analysis.

4.3 Accuracy of Prediction

Table 3. Expectation Prediction Table

	Estimated Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total
P(Dep=1)<=C	56	11	67	62	38	100
P(Dep=1)>C	6	27	33	0	0	0
Total	62	38	100	62	38	100
Correct	56	27	83	62	0	62
% Correct	90.32	71.05	83.00	100.00	0.00	62.00
% Incorrect	9.68	28.95	17.00	0.00	100.00	38.00
Total Gain*	-9.68	71.05	21.00			
Percent Gain**	NA	71.05	55.26			
	Estimated Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total
E(# of Dep=0)	51.81	10.19	62.00	38.44	23.56	62.00
E(# of Dep=1)	10.19	27.81	38.00	23.56	14.44	38.00
Total	62.00	38.00	100.00	62.00	38.00	100.00
Correct	51.81	27.81	79.62	38.44	14.44	52.88
% Correct	83.56	73.18	79.62	62.00	38.00	52.88
% Incorrect	16.44	26.82	20.38	38.00	62.00	47.12
Total Gain*	21.56	35.18	26.74			
Percent Gain**	56.75	56.75	56.75			

Based on table 3. showing the results of accuracy of predictions, namely in the expectation column can be seen that from 62 data that are in fact categorized as 0, but if estimated with a logistics model there are 11 data categorized as value 1. Next, in the second row that in fact there are 38 data valued at 1, there are 6 data that value 0. Thus, the correct presentation identification (with a threshold of 0.5) is (56+27/100) x 100 = 83%. It can be said that this model is correct 27 times out of 38 observations with a predicted success rate of 83%.

Table 4

McFadden R-Squared, Log Likehood, Invidual/Partial/T and Simultaneous/F Test Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-174.8273	43.86149	-3.985894	0.0001
CR	-1.119521	1.070380	-1.045910	0.2956
DER_M	-0.055061	0.152897	-0.360116	0.7188
TATO	-3.979210	1.337567	-2.974961	0.0029
ROE	-18.64753	5.762540	-3.235991	0.0012
SIZE	6.534692	1.603516	4.075228	0.0000
McFadden R-squared	0.516966	Mean dependent var		0.380000
S.D. dependent var	0.487832	S.E. of regression		0.331580
Akaike info criterion	0.761531	Sum squared resid		10.33485
Schwarz criterion	0.917841	Log likelihood		-32.07655
Hannan-Quinn criter.	0.824793	Deviance		64.15311
Restr. deviance	132.8128	Restr. log likelihood		-66.40641
LR statistic	68.65972	Avg. log likelihood		-0.320766
Prob(LR statistic)	0.000000			
Obs with Dep=0	62	Total obs		100
Obs with Dep=1	38			

4.4 Mcfadden R-Squared Test

Based on table 4. shows the result that the Value of McFadden R-Square (R^2) is 0.516966. This means that variations of independent variables (liquidity, solvency, activity, profitability and company size) can explain the financial distress variation by

51.69%, while the rest is influenced by other variable variations that are not included in the regression equation model. R^2 value is also to assess the goodness of fit logistics model, which the higher the value of R2 indicates a better model anyway, so that the model is fit or matched with the data.

4.5 Log Likehood Test

Based on table 4. also can be seen the log likehood value of -32.07655. The smaller the log likehood value means the better, because there is a less chance of errors in predicting. In addition, the smaller log likehood value can indicate a good model so that the model can be said to be fit or match the data.

4.6 Simultaneous Test /F (Omnibus Test od Model Coefficient)

Based on table 4.4. can be seen the results of simultaneous / F tests used to see the overall influence or together independent variables have a significant influence on dependent variables.

The probability value of the likehood ratio shows a yield of 0.000000 less than 0.01 (0.000000 < 0.01) so it can be said that all free variables namely liquidity, solvency, activity, profitability and company size simultaneously or jointly have a significant effect on the bound variables namely financial distress.

4.7 Individual/Partial/T Test (Regression Coefficient)

Individual/Partial/T tests are performed using a level a = 1%, 5% and 10% significance. Of the three test levels will be indicated the best test to predict that is the level test 1%, because it can be interpreted that the predicted error rate is only 1% or in other words the correctness of the prediction is 99%.

The result of hypothyntic test level of 1% is as follows:

1. Current ratio (H1) hypothesis testing
   Based on table 4.4. shows the result that the estimated liquidity performance (CR) has a regressive coefficient of -1.119521 with a probability rate of 0.2956 greater than 0.01 or 1% (0.92956> 1%). This indicates that the liquidity performance (CR) has no significant effect on financial distress that is proxied with ICR.
2. Hypothetical testing of debt to equity ratio (H2)
   Based on table 4.4. shows the result that solvency performance (DER) has a regression coefficient of -0.055061 with a probability rate of 0.7188 greater than 0.01 or 1% (0.7188> 1%). This indicates that solvency performance (DER) has no significant effect on financial distress that is proxiated with ICR.
   Hypothesis testing of total asset turnover (H3) Based on table 4.4. shows the result that activity performance (TATO) has a regression coefficient of -3.979210 with a probability level of 0.0029 less than 0.01 (0.0029 < 1%). This indicates that activity performance (TATO) has a significant negative effect on financialdistress that is proxies with ICR.
3. Hypothesis testing return on equity (H4)
   Based on table 4.4. shows the result that profitability performance (ROE) has a regression coefficient of -18.64753 with a probability level of 0.0012 less than 0.01 (0.0012 < 1%). This indicates that the profitability performance (ROE) has a significant negative effect on financial distress that is proxyed with ICR.
4. Hypothesis testingsize (H5)
   Based on table 4.4. shows the result that the company size has a regression coefficient of 6.534692 with a probability rate of 0.0000 less than 1% (0.0000 < 1%). This indicates that the size of the company (size) has a significant positive effect on financial distress that is proxyed with ICR.

Based on the test results of the 1% signification level, variables that have a significant effect on financial ditress are activity performance, profitability performance and company size. So if in this study using a test signification level of 5% and 10% then it will get the same results. Based on the hypothetical test, shows 3 variables in research that affect financial distress in textile and gament industry based on IDX in 2015-2019

4.8 Logistic Regression Analysis

Table 5. Logistic Regression Test Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-174.8273	43.86149	-3.985894	0.0001
CR	-1.119521	1.070380	-1.045910	0.2956
DER_M	-0.055061	0.152897	-0.360116	0.7188
TATO	-3.979210	1.337567	-2.974961	0.0029
ROE	-18.64753	5.762540	-3.235991	0.0012
SIZE	6.534692	1.603516	4.075228	0.0000

Based on table 5. regression test results above, then can be made regression equation as follows:

$$Ln\frac{P}{1\text{-}P_{i(t)}} = -174.8273 - 1{,}119521\,CR\ - 0{,}055061DER - 3{,}979210TATO - 18{,}64753\,ROE + 6{,}535692 \text{ Size} + e$$

Based on the regression equation above, it can be interpreted as follows:

1. The coefficient of regression in liquidity variables is proxies with a negative current ratio of -1.119521. That is, if other independent variables are considered fixed and the CR value increases by 1, then the ICR value will decrease by ($e^{-1.119521}$) = 0.3264.A company that has a high level of liquidity means that the current assets owned by the company are high. However, this standard is not absolute because it must be considered several things such as industry characteristics, inventory efficiency, cash management and so on. Large companies will be more likely to take advantage of excess unused cash by expanding their businesses, opening new branches, multiplying productive assets and so on..Likewise, in cost efficiency, companies will usually prefer to buy inventory of merchandise in times of need rather than stocking up on goods in warehouses. Good cash management and the implementation of a just in-time inventory system can reduce the number of lacar assets. If companies in thetektil and garment sectors listed in the IDX have a high liquidity value, then the probability of textual and garment companies registered in the IDX experiencing financial distress will be small.Thus, textual and garment sector companies should pay attention to the level of liquidity in their management for the survival of the company so as not to be indicated financial distress in the future, because liquidity is important ratio for the company to measure the extent to which the company is able to pay off its short-term debt at maturity or at the time of billed by creditors.The liquidity ratio can also be a measure of consideration for creditors to lend funds to the company or not. If the company has high liquidity, it will be able to pay off its short-term debt at maturity and the lender will trust the company to be given its short-term loan.In this study using current ratio, means if the liquidity level of the company is high, means the proportion of current assets owned by the company is higher than the current debt. Thus, the company's current debt will be covered by current assets owned by the company and the possibility of the company experiencing financial distress is small and the creditors will trust the

company. So, companies must increase liquidity to reduce the probability of experiencing financial distress in the future.

2. The regression coefficient on solvency variables proxyed by debt to equity ratio is marked negative. That is, if other independent variables are considered fixed and the DER value increases by one, then the ICR value will decrease by ($e^{-0.055061}$) = 0.9464.In this study, DER value obtained negative and insignificant results on financial distress, because if seen in the financial statements of textile and garment sector companies have a high total debt, while the equity value of the company tends to be minus, this happens because textile and garment sector companies already rely on using debt to carry out their operations. The der value that has no effect can be caused because the company is still able to pay the debt it has from the sales generated even though the sales value generated by the small company. If the textile and garment sector companies listed on the IDX have a high debt value, then the probability of textile and garment companies registered in the IDX experiencing financial distress is high.The reason is, because companies that have high debts can provide high financial risks as well, because the greater the debt of the company means the higher the interest burden borne by the company. Therefore, the company's total debt is high, can increase the possibility of the company experiencing financial distress. Similarly, if the company has a low total debt, it means that the financial risk and interest expense borne by the company is relatively small. That way, the company's chances of experiencing financial distress are also small.
3. The regression coefficient on the activity variables proxyed by total asset turnover is marked negative. That is, if other independent variables are considered fixed and the TATO value increases by 1, then the ICR value will decrease by ($e^{-3.979210}$) = 0.0187.If a textile and garment sector company listed by IDX has a high activity value, then the probability of the company experiencing financial distress is small. So, the company must pay attention to the level of activity within the company, because the ratio of activities is important for the company to measure the effectiveness and efficiency of the company in rotating its assets to generate sales and increase profit.When the company's assets have rotated effectively in generating sales, it can minimize the possibility of the company experiencing financial distress. Similarly, if the company has a low activity value, it means that the chances of the company experiencing financial distress are high. Because, the low total activity indicates that the company is less maximal in rotating its assets to generate sales and increase profit. Therefore, the company must increase the value of its activities so that the company can avoid financial distress in the future.
4. The regression coefficient on variable profitability proxyed by return on equity is marked negative. That is, if other independent variables are considered fixed and the ROE value increases by 1, then the ICR value will decrease by ($e^{-18.64753}$) = 7.9704. If textile and garment sector companies have high profitability value, then the probability of textile and garment companies to experience financil distress is low. So, the company should pay attention to the profitability ratio, because profitability is an important ratio for the company to measure the extent to which the company generates profit from the equity contingency owned to carry out operating activities so as to generate income and increase profit.If the company's profit increases, it means that the company will still be able to carry out its operations on a daily and from the profit generated keeps cash inflows running due to these operations. So it is likely that the company will experience financial distress will be small. So, the company must increase its profitability ratio in order to reduce the chances of the company experiencing financial distress.

5. The regression coefficient on the company size variables that are proxyed with total assets is positive. That is, if other independent variables are considered fixed and the size value increases by 1, then the ICR value will increase by (e^6.534692) = 688.621.If the textile and garment sector company has a high size, then the probability of the company's textual and garment sector experiencing financial distress is small. Because, measuring the company (size) is important for the company. With a large company size, means the total assets owned by large companies, and will get a high income and high corporate profits. So the chances of the company experiencing financial distress will be small.

4.9. Research Findings

1. The Effect of Liquidity on Financial Distress

Liquidity performance (CR) is negative and has no effect on financial distress. Thus, it can be interpreted if companies in the textile and garment sector have a high level of liquidity then the smaller the company will experience financial distress.So, to reduce the possibility of the company experiencing financial ditress in the future, companies in the textile and garment sector should pay attention to the level of liquidity, because liquidity is a ratio that indicates the ability of the company to pay its current obligations at maturity or when billed by creditors.In addition, the company's liquidity level can also be a measure for lenders to provide loan funds. If the liquidity of the company is high then most likely the lender will give a loan of funds to the company. High liquidity level means that the company has high current assets. However, it may also indicate that the company is less efficient in using its cash and current assets.

This research has similar results with research conducted by Fatmati and Rihardjo (2017) obtaining results under the current ratio has no effect on financial distress and also research conducted by Jariyah and Budiarti (2019) which obtained the results that the current ratio has no effect on financial distress. In the results of the study, the payment of current liabilities of the company is good, but the large or small current ratio obtained can not directly affect the financial ditress.

2. The Effect of Solvency On Financial Distress

Solvency (DER) performance is negative and has no effect on financial distress. Basically, if the debtto equity ratio (DER) generated by the company is high then the more likely the company is to experience financial distress.Because, the larger DER means that the company uses more debt to finance its operations than the capital or equity owned. So the greater the value of solvency performance (DER) means the greater the risk borne by the company because the greater the interest expense borne by the company, means the greater the value of solvency performance (DER) the higher the likelihood of the company experiencing financial distress. Similarly, if the value of solvency performance (DER) is small means that the chances of the company experiencing financial distress are also small, because the risks borne by the company are getting smaller and the interest expense borne by the company is small. Thus, the results obtained in this study can be concluded that the large or small value of solvency performance (DER) obtained can not directly affect the condition of financial distress.Similarly, if the value of solvency performance (DER) is As we know, that one of the problems that occur in the textile and garment industry is the long-time condisi machinery that makes the textile industry less competitive with other products, the loss in the competition makes many machines idle due to the reduced number of orders. If the company's operational activities are no longer effective then it is difficult for it to generate high sales and large profits

all, because the risks borne by the company are getting smaller and the interest expense borne by the company is small. Thus, the results obtained in this study can be

concluded that the large or small value of solvency performance (DER) obtained can not directly affect the condition of financial distress.

This research has similar research results with research conducted byWulandari (2017)obtaining the result that the debt to equity ratio has no effect on financial distress. The researchers concluded that the small amount of debt to equity ratio could not directly affect financial distress.

3. Effect of Activity on Financial Distress

The performance of negative activity affects financial distress. Basically, if textile and garment sector companies have a high level of activity then the probability of the company experiencing financial distress is low.In this study, companies should pay attention to the level of activity of the company, because the ratio of activities is important for the company to measure how efficiently and effectively the company in rotating its assets for operational activities thereby increasing sales and generating profit. In addition, the condition of the machine is long and rarely used because the lack of ordering can affect the level of effectiveness that can affect the declining sales value.

As we know, that one of the problems that occur in the textile and garment industry is the condition of the machine that has long made the textile industry less competitive with other products, the loss in the competition makes many machines idle due to the reduced number of orders. If the company's operational activities are no longer effective then it is difficult for the company to generate high julan and large profits.

This research has similar research results with research conducted by Fatmawati and Rihardjo (2017) and also the results of research conducted by Hassan et al,. (2018) which obtained the results that the total assetturnover negative influence on financial distress. In the study, researchers concluded that the loss of assets in the company is less than maximum so that the sales and profit generated are low and the probability of the company experiencing high financial distress.

4. The Effect of Profitability On Financial Distress

Based on the analysis that has been tested can show the results that profitability performance (ROE) has a regression coefficient of -18.64753 with a probability of 0.0012. These results show that profitability performance has a significant negative effect on financial distress.

This research has similar research results with research conducted by Fatmawati and Rihardjo (2017) and also research conducted by Sanchiani and Bernawati (2018) which obtained results that return onequity has a significant negative effect on financial distress.In the study, researchers concluded that the company is still not able to generate maximum profit so the chances of the company experiencing financial distress are high. However, the results of the study are different from the research conducted by Audia et al,. (2017) which obtained the results that the return onequity has no effect on financial distress. Researchers concluded that the small amount of return on equity owned by the company could not directly affect financial distress.

5. *The Effect of Corporate Size on Financial Distress*

Based on the analysis that has been tested can show the results that the variable size of the company (size) has a regression coefficient of 6.534692 with a probability of 0.0000. These results show that the size of the company (size) has a significant positive effect on financial distress.

This study has similar research results with research conducted by Hassan et al,. (2018) which obtained size results had a significant positive effect on financial distress. in the study, researchers concluded that the large natural log of total assets can reduce the

possibility of the company experiencing financial distress, because the company is able to optimize its assets for the company's operations. However, the results of the study are different from the research conducted by Zhafirah and Majidah (2018) who obtained results that size has no effect on financial distress.

V. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusion

Based on the results of the research that has been described previously, the conclusions that can be from this research are:

1. Variable liquidity performance (CR) is negative and has no effect on financial distress in the textile and garment industry registered in the IDX in 2015-2019.
2. Solvency performance variables (DER) are negative and have no effect on financial distress in the textile and garment industry registered in the IDX in 2015-2019.
3. Variable activity performance (TATO) negative significantly limited financial distress in textile and garment industry listed in IDX year 2015-2019.
4. Variable profitability performance (ROE) is significantly negative to financial distress in the textile and agrment industries listed on the IDX in 2015-2019.
5. The firm's size variable is significantly positive for financial distress in the textile and garment industry registered in the IDX in 2015-2019.

5.2 Advice

Based on the research that has been done, researchers provide advice that is expected to provide the following benefits:

1. Furthermore, researchers are expected to use other sectors in the next study, so that the scope of research is wider. In addition, researchers are then expected to use other financial variables that are still rare to use as well as use non-financial variables for further research.
2. For companies in the textile and garment industry should increase the performance of activities, profitability performance and size of the company, because the performance of the test has an effect on financial distress.

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