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# Financial Distress Analysis in an Indonesian Textile Company

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## Abstract

This research aimed to examine the health of textile companies by using the Altman Z-Score method. The Altman model is used to determine the effect on financial distress through Working Capital to Total Asset (WCTA), Retained Earning to Total Asset (RETA), Earning Before Interest and Tax to Total Asset (EBITA), Market Value of Equity to Book Value of Liabilities (MVEBL) and Sales to Total Asset (STA). The population in this study was textile companies for the period 2016-2019. The sample was 14 textile companies with a research time of 4 years resulting in 56 samples obtained by purposive sampling. The results indicated that WCTA, RETA, EBITA, MVEBL and STA had a simultaneous effect on financial distress, but they had no effect separately.

**Keywords:** Altman Z-Score, Financial Distress, Bankruptcy

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## 1. Introduction

### 1.1. Background

Financial distress starts when a company cannot meet its payment schedule or when cash flow projections indicate that the company will soon fail to meet its obligations. Every company must be aware of the potential for bankruptcy, therefore the company must conduct an analysis as early as possible regarding company bankruptcy. The benefit of doing a bankruptcy analysis for the company is to be able to anticipate and avoid or reduce the risk of bankruptcy.

In his research on financial performance appraisal methods, Edward Altman Z at New York University in Mid 1960 used discriminant analysis by compiling a model to predict company bankruptcy called the Altman Z-Score Method. This formula is used to measure the financial health of the company. By predicting the bankruptcy, the company is expected to determine the steps that must be taken to improve the decreased performance and avoid bankruptcy.

Altman tries to combine several financial ratios into a predictive model with statistical techniques, namely discriminant analysis that can be used to predict company bankruptcy from his research, Altman uses five financial ratios intended for publicly traded companies, namely Working Capital to Total Assets, Retained Earnings to Total Assets, EBIT to Total Assets, Market Value of Equity to Total Liabilities, and Sales to Total Assets. From the calculation results will be obtained the value of Z (Z-Score) which can describe the company's financial position is in a healthy condition, vulnerable or in a condition of bankruptcy.

The textile sub-sector is one of the sub-sectors in the Miscellaneous Industry Sector. The definition of textile products is also regulated in the Regulation of the Minister of Trade of the Republic of Indonesia. Number 52 / M-DAG / PER / 7/2015. In this Ministerial Regulation, what is said to be textiles and textile products is fiber, filament yarn, sheet cloth, and products using sheet cloth as raw material or auxiliary material. The Textile and Textile Product Industry (TPT) is a strategic sector that makes a major contribution to the national economy. This industry is included in the labor-intensive and export-oriented sectors.

## 1.2. Problems

Based on the background of the problems that have been described in the formulation of problems related to this study, the authors will formulate the following problems:

1. Does working capital to total assets affect the company's bankruptcy?
2. Does retained earnings to total assets affect the company's bankruptcy?
3. Does earning before and taxes to total assets affect the company's bankruptcy?
4. Does the market value of equity to book value of liabilities affect the company's bankruptcy?
5. Do sales to total assets affect the company's bankruptcy?
6. Do working capital to total assets, retained earning to total assets, earnings before and taxes to total assets, market value of equity to book value of liabilities, and sales to total assets have a significant effect on company bankruptcy?

Going concern assumption is the survival of a business entity and is an assumption in the financial reporting of an entity so that if an entity experiences the opposite condition, the entity becomes problematic. Going concern assumption is one of the assumptions

used in preparing the financial statements of an economic entity. This assumption requires that the economic entity operationally and financially have the ability to survive or go concern. The ability to survive is a requirement for a financial report that is prepared using accrual business, not when cash or cash equivalents are received or given. If a business entity does not have the ability to survive, the financial statements of that entity must be prepared based on other assumptions, namely liquidation and realizable value as the basis for recording. The going concern assumption means that a business entity is considered to be able to maintain its business activities in the long term and will not be liquidated in the short term.

Every company certainly runs a business to improve the company's financial performance. The financial performance of a company can be seen from the company's financial statements. Financial reports are the result of an accounting process that can be used as a tool to communicate financial data or company activities to interested parties. The financial report is the final product of a series of processes for recording and summarizing business transaction data.

Information regarding financial position, financial performance and changes in financial position is necessary to evaluate the company's ability to generate cash (and cash equivalents), and the timing and certainty of these results. The financial position is influenced by controlled resources, financial structure, liquidity, and solvency as well as the ability to adapt to environmental changes. Information on changes in the company's financial position is useful for assessing the company's investment activities and operations during the reporting period. Apart from being useful for assessing the company's ability to generate cash (and cash equivalents), it is also useful for assessing the company's need to utilize this cash flow.

Financial Distress is a situation where a company has difficulty fulfilling its obligations, a situation where the company's revenue cannot cover the total costs and incurs a loss. For creditors, this situation is an early symptom of debtor failure. Companies that experience financial distress tend to prepare the company's financial statements as best as possible so that the company is not detected by users of financial statements and in the end users of financial statements can make wrong decisions as a result of unreliable use of finance. The main cause of failure of a company is incompetent company management, which is meant by incompetent managers, among others, failure to anticipate and adapt to recessions and unfavorable industry trends. The financial difficulties faced by companies are usually the result of miscalculations, miscalculations, and other related weaknesses. Where directly or indirectly describes management capabilities.

The factors causing the failure of a company in principle can be classified into two, which are: a). Internal causes are causes that arise from within the company itself, which includes financial and non-financial causes. b). External causes are causes that arise or originate from outside the company and which are beyond the power or control of the leadership of the company or business entity.

In this study using the Altman Z-Score. Edward L. Altman formulated a general Z-Score formula in order to measure the financial health of a company in 1968. Altman ratio measurement is to determine the potential for bankruptcy using the Z-Score calculation. Z-Score is a score determined from the standard calculation times financial ratios which will indicate the probability level of company bankruptcy.

The Z-Score value will explain the company's financial condition which is divided into several levels, which are:

1. If the Z-score $< 2.9$, it is said to be Financial Distress.

2. If the Z-score $> 2.9$, it is said that it is not Financial Distress

Bankruptcy prediction formulated by Altman in the form of the Z-Score equation:

$$Z = 1,2X1 + 1,4X2 + 3,3X3 + 0,6X4 + 1,0X5$$

Which are:

X1 = WCTA (Working Capital to Total Asset), namely the liquidity ratio, measuring liquidity by comparing net liquid assets to total assets. Net liquid assets or working capital are defined as total current assets less total current liabilities. Generally, when a company is experiencing financial difficulties, working capital will fall faster than total assets causing this ratio to fall.

X2 = RETA (Retained Earnings to Total Asset), namely the profitability ratio to measure the cumulative profit ability of the company. At some level, this ratio also reflects the age of the company, because the younger the company, the less time it has to build up cumulative profit.

X3 = EBITA (Earnings Before Interest and Taxes to Total Asset), namely the profitability ratio of the rate of return of assets, which is calculated by dividing the company's year-end earnings before interest and tax (EBIT) by total assets on the year- end balance sheet. This ratio can also be used as a measure of the productivity of the use of borrowed funds.

X4 = MVEBVL (Market Value of Equity to Book Value of Liability), namely the solvency ratio which is the inverse of the debt per equity ratio (DER). The value of own capital is the market value of its own capital, which is the number of companies shares multiplied by the market price per share.

X5 = STA (Sales to Total Asset), namely the liquidity ratio, to measure management's ability to face competitive conditions in textile companies and for management's ability to use assets to generate sales.

The reason the researcher uses the Altman Z-Score method is because Altman can combine various ratios into a meaningful prediction model that can be used by companies operating in various sectors, both public and private companies in various sizes. This formula is relatively easy to apply and also has a fairly high level of accuracy in predicting the potential bankruptcy of a company and the accuracy is up to 95%. Therefore, prediction of the failure rate or company bankruptcy is an interesting topic to be studied by several researchers as well as many researchers who use the Altman model to predict bankruptcy.

In addition, the advantages of the Z-Score analysis are that the advantages of this Z-Score are due to the discriminant model of multivariate analysis where the independent variables of this discriminant model are taken from the company's balance sheet and income statement. This means that there is a relationship between the variables of the Z-Score with financial ratio analysis in which the financial ratio variables are also taken from the financial statements. So it is the same with financial ratio analysis where the value of financial ratios and the Z-Score will also affect the company's decision making in overcoming problems, especially problems of performance and the company's financial health.

Meanwhile, the weakness of this model is that there is no definite time frame when bankruptcy occurs after the Z-Score result is known to be lower than the set standard. This model also cannot be used absolutely because there are times when there are different results if we use different objects.

## 2. Research Method

### 2.1. Types and Sources of Data

The type of data used in this research is quantitative data, namely information expressed in the form of numbers or company data such as financial statements in the form of income statements and balance sheets from textile companies on the Indonesia Stock Exchange (IDX) during the 2016-2019 period.

Sources of data obtained in this study are secondary data, namely data obtained indirectly by studying literature or documents related to research. These data include

an overview of the company or company profile, company financial statements which include balance sheets and income statements during the year of 2016 - 2019.

### 2.2. Population and Sample

The population used in this study are all textile industry sector companies listed on the Indonesia Stock Exchange (IDX) for the 2016 - 2019 period.

The sample used is the Puposive Sampling method. Sampling aims to be done by taking the subject not based on strata, random, or area but based on the existence of certain goals. These criteria are:

1. The company publishes annual financial reports and for 4 consecutive years, namely 2016, 2017, 2018, and 2019.
2. The financial statements must have a financial year ending on 31 December.
3. Have a complete report during listing on the Indonesia Stock Exchange.
4. Not delisted during the period 2016 - 2019.
5. Companies that have complete data on the Indonesia Stock Exchange.

## 3. Data Analysis Technique

### 3.1. Overview of Research Objects

The general description of the research examines the profile of the companies that are the samples in this study, namely textile companies that are listed on the Indonesia Stock Exchange and publish their financial statements consecutively for 4 years, namely 2016 - 2019. The sample of companies was selected using purposive sampling. After selecting the sample according to the predetermined criteria, 14 companies were obtained which each year met the sample criteria, so that the samples in this study were 56 (14 X 4) companies.

## 4. Results

### 4.1. Descriptive Statistic

Descriptive statistics are statistics that describe or describe data into information that is easier to understand.

TABLE 1

| No | Company | Company Code |
|---|---|---|
| 1 | Argo Pantes Tbk | ARGO |
| 2 | Ever Shine Tex Tbk | ESTI |
| 3 | Panasia Indo Resources Tbk | HDTX |
| 4 | Indo Rama Synthetic Tbk | INDR |
| 5 | Asia Pasific Investama Tbk | MYTX |
| 6 | Pan Brother Tbk | PBRX |
| 7 | Asia Pasific Fibers Tbk | POLY |
| 8 | Ricky Putra Globalindo Tbk | RICY |
| 9 | Sri Rejeki Isman Tbk | SRIL |
| 10 | Sunson Textile Manufacturer Tbk | SSTM |
| 11 | Star Petrochem Tbk | STAR |
| 12 | Tifico Fiber Indonesia Tbk | TFCO |
| 13 | Trisula International Tbk | TRIS |
| 14 | Nusantara Inti Corpora Tbk | UNIT |

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| WCTA (X1) | 56 | -4.2859 | .8439 | -.243169 | 1.1641913 |
| RETA (X2) | 56 | -3.4619 | 9.5348 | .467181 | 2.6342026 |
| EBITA (X3) | 56 | -.6057 | .1070 | -.020959 | .1101372 |
| MVEBL (X4) | 56 | .0087 | 11.9390 | 1.333622 | 2.4650684 |
| STA (X5) | 56 | .0197 | 2.0113 | .758592 | .4521174 |
| (Financial Distress)Y | 56 | 0 | 1 | .73 | .447 |
| Valid N (listwise) | 56 | | | | |

Source: Data processed by Statistics

The results of the descriptive statistical test above show that the Working Capital to Total Asset variable has a mean value of -0.243169, which means that it is likely that you will face problems in covering short-term liabilities, because there are not enough current assets to cover these liabilities. In the variable Retainerd Earnings to Total Asset has a mean value of 0.467181, which means that the company's retained earnings are able to finance the company's assets. The variable Earning Before Interest to Total Asset has a mean value of -0.020959, which means that the company's ability to pay its obligations or liabilities is not effective.

The Market Value of Equity to Liability variable has a mean value of 1.333622, which means that this ratio has a high book value of capital to the book value of debt. Then the

greater the company's ability to meet its long-term obligations from its own capital. The Sales to Total Asset variable has a mean value of 0.758592, which means management efficiency in using all company assets to generate sales and get small profits. Meanwhile, financial distress has a mean value of 0.73 or close to number 1, which means that the company is included in the bankrupt category.

## 4.2. Logistic Regression Analysis

Because the dependent variable in this study is a dummy variable, namely financial distress, the analysis method used to test the hypothesis in this study is logistic regression. In its use, logistic regression does not require a normal distribution on the independent variable.

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA (X1) | 4.990 | 11785.212 | .000 | 1 | 1.000 | 146.917 |
| | RETA (X2) | -2.909 | 5751.442 | .000 | 1 | 1.000 | .055 |
| | EBITA (X3) | -219.916 | 54112.772 | .000 | 1 | .997 | .000 |
| | MVEBL (X4) | -41.175 | 3695.993 | .000 | 1 | .991 | .000 |
| | STA (X5) | -72.946 | 8017.487 | .000 | 1 | .993 | .000 |
| | Constant | 136.351 | 12097.625 | .000 | 1 | .991 | 1.647E+59 |

a. Variable(s) entered on step 1: WCTA (X1), RETA (X2), EBITA (X3), MVEBL (X4), STA (X5).

Based on Table 4.5 above, the logistic regression model obtained is as follow:

$$\text{Ln}\ \frac{\alpha}{(p-1)} = 136.351 + 1,2(4.990) + 1,4(-2.909) + 3,3(-219.916) + 0,6(-41.175) + 1,0(-72.946) + e$$

The figures generated from these tests can be explained as follows:

a. Constanta (α)

a. The results of this logistic regression test show that the constant has a value of 136,351 which indicates that if the independent variables WCTA, RETA, EBITA, MVEBL, STA are zero (0) then the value of Financial Distress is 136,351.

b. X1 Regression Coefficient X1 of Working Capital to Total Asset (WCTA)

The results of the logistic regression test show that the Working Capital to Total Asset (WCTA) variable has a regression coefficient value of 4,990 on the assumption that the other variables are constant.

c. X2 Regression Coefficient of Retained Earning to Total Asset (RETA)

The results of the logistic regression test show that the variable Retained Earning to Total Asset (RETA) has a coefficient value of -2,909 on the assumption that the other variables are constant.

d. X3 Regression Coefficient of Earning Before Interst and Tax to Total Asset (EBITA)

The logistic regression test results show that the variable Earning Before Interest and Tax (EBITA) has a coefficient value of -219,916 on the assumption that the other variables are constant.

e. Coefficient of Market Value of Equity to Book to Liabilities (MVEBL)

The results of this logistic regression test have a coefficient value of -41,175 assuming that the other variables are constant.

f. Coefficient of Sales to Total Asset (STA)

The results of this logistic regression test have a coefficient value of -72,946 on the assumption that the other variables are constant.

## 4.3. Hosmer and Lemeshow's Test

If the Hosmer and Lemeshow's Test statistical value is equal to or less than 0.05, then the null hypothesis (H0) is rejected and this means that there is no significant difference between the model and its observations so that the Goodness of Fit Test Model is not good because the model cannot predict the value of the observation. Conversely, if the Hosmer statistical value is more than 0.05, then the hypothesis no (H0) cannot be rejected, which means that the model is able to predict the value of its observations.

**Hosmer and Lemeshow Test**

| Step | Chi-square | Df | Sig. |
|---|---|---|---|
| 1 | .000 | 4 | 1.000 |

Source: Data processed by statistics

Based on the Hosmer table above, the significant value of Hosmer's output is 1,000 which is greater than the 5% probability of 0.05, with these results it can be concluded that the model is able to predict the value of its observations so that in other words this model is fit (feasible).

## 4.4. Wald Test

In logistic regression, the Wald test is used, which functions to test the significance of the constants of each independent variable entered into the model. Therefore, if the Wald test shows a significant number smaller than 0.05, the regression coefficient is significant at the 5% confidence level. The determination of whether H0 is accepted or not is based on the significance level α (5%) with the following criteria:

1. H0 is accepted if the probability value (sig) Wald> significant level (α) is 5%. This means that HA is rejected or the hypothesis that the independent variable has a significant effect on the dependent variable is rejected.

2. H1 is rejected if the probability value (sig) Wald <significant level (α) is 5%. This means that HA is accepted or the hypothesis that the independent variable has a significant effect on the dependent variable is accepted.

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA (X1) | 4.990 | 11785.212 | .000 | 1 | 1.000 | 146.917 |
| | RETA (X2) | -2.909 | 5751.442 | .000 | 1 | 1.000 | .055 |
| | EBITA (X3) | -219.916 | 54112.772 | .000 | 1 | .997 | .000 |
| | MVEBL (X4) | -41.175 | 3695.993 | .000 | 1 | .991 | .000 |
| | STA (X5) | -72.946 | 8017.487 | .000 | 1 | .993 | .000 |
| | Constant | 136.351 | 12097.625 | .000 | 1 | .991 | 1.647E+59 |

a. Variable(s) entered on step 1: WCTA (X1), RETA (X2), EBITA (X3), MVEBL (X4), STA (X5).

Source: Data processed by statistics

Based on the equation in table above, it can be seen that:

1. In that table, it is known to have a wald value of 0.000 (Sig. 1,000). The significance value of 1,000 is greater than the significance level of 0.05 (5%). So it can be concluded that Working Capital to Total Asset (WCTA) has no effect on Financial Distress. These results indicate that the level of liquidity ratios has no effect on financial distress.

2. In that table, it is known that the Wald value is 0.000 (Sig. 1.000). The significance value of 1,000 is greater than the significance level of 0.05 (5%). So it can be said that Retained Earning to Total Asset has no effect on Financial Distress. This research shows that the level of RETA ratio does not affect the possibility of companies experiencing financial distress. Companies that have low retained earnings do not necessarily experience financial difficulties.
3. In that table, it is known that the Wald value is 0.000 (Sig. 0.997). The significance value of 0.997 is greater than the significance level of 0.05 (5%). So it can be said that Earning Before Interest and Tax (EBITA) has no effect on Financial Distress.
4. In that table, it is known that the Wald value is 0.000 (Sig. 0.991). The significance value of 0.991 is greater than the significance level of 0.05 (5%). So it can be said that the Market Value of Equity to Liability (MVEBL) has no significant effect on financial distress. The higher the MVEBL value, the better the company will be in accounting for its assets.
5. In tha table, it is known that the Wald value is 0.000 (Sig. 0.993). The significance value of 0.993 is greater than 0.005 (5%). So it can be said that Sales to Total Asset has no effect on Financial Distress. The results of this study indicate that the size of the STA ratio cannot determine the possibility of a company experiencing financial distress.

## 4.5. Omnimbus Test

It should be remembered that in multiple linear analysis to test for simultaneous significance using the F test, while in logistic regression using the chi square value of the difference between -2 Log likelihood before the independent variable entered the model and -2 Log likelihood after the independent variable entered the model. This test is also called the Maximum likelihood test.

**Omnibus Tests of Model Coefficients**

| | | Chi-square | Df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 65.085 | 5 | .000 |
| | Block | 65.085 | 5 | .000 |
| | Model | 65.085 | 5 | .000 |

Source: Data processed by statistics

In the Omnibus Test of Model Coefficient table, it can be seen that the Chi Square value, df and significant is 0.000, where 0.000 <Alpha 0.05 or the calculated Chi

Square value (difference between initial -2LL and -2LL later) is 65.085> Chi Square table is 11.070 at df 5.

So that the answer to the hypothesis of the simultaneous effect of the independent variable on the dependent variable is to accept HA and reject H0 or which means that the simultaneous significant effect between WCTA, RETA, EBITA, MVEBL, and STA on financial distress.

## 4.6. Coefficient of Determination (Nagelkerke R Square)

The summary model in logistic regression is the same as testing R2 in the linear regression model. The purpose of the summary model is to find out how much the combination of the independent variables, namely Z-Score Altman, is able to explain the dependent variable, namely financial distress.

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | .000[a] | .687 | 1.000 |

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Source: Data processed by statistics

The summary model in logistic regression is the same as testing R2 in the linear regression model. The purpose of the summary model is to find out how much the combination of the independent variables, namely Z-Score Altman, is able to explain the dependent variable, namely financial distress.

The Nagelkerker R Square value is 1,000 and Cox & Snell R Square is 0.687 which indicates that the ability of the independent variable to explain the dependent is 1,000 or 100%.

## 4.7. Model Accuracy

From research on WCTA, RETA, EBITA, MVEBL, STA on financial distress in textile companies on the Indonesia Stock Exchange for the period 2016-2019, predicting the possibility of a healthy company can be seen from the percentage correct of 100%. This shows that with the regression model used, there are 15 healthy companies. The accuracy of the prediction model to predict the possibility of a company going bankrupt

is 100%, which means that with the regression model used, there are 41 companies that go bankrupt. The prediction accuracy of the whole model is 100%.

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | (Financial Distress)Y | | Percentage Correct |
| | | | Sehat | Bangkrut | |
| Step 1 | (Financial Distress)Y | Sehat | 15 | 0 | 100.0 |
| | | Bangkrut | 0 | 41 | 100.0 |
| | Overall Percentage | | | | 100.0 |

a. The cut value is .500

Source: Data processed by statistics

## 5. Discussion

The Effect of Working Capital to Total Asset (WCTA), Retained Earning to Total Asset (RETA), Earning Before Interest and Tax to Total Asset (EBITA), Market Value of Equity Book Value to Liabilities (MVEBL), and Sales to Total Asset (STA) Simultaneously Against Financial Distress

Based on the results of the study, financial distress is proxied by a dummy, where the number 1 is for companies that are experiencing financial difficulties (bankruptcy) and 0 for companies that are experiencing health.

Based on the results of research conducted on the Z-Score which affects financial distress used in this study, namely Working Capital to Total Asset (WCTA), Retaining Earning to Total Asset (RETA), Earning Before Interest and Tax to Total Asset (EBITA), Market Value of Equity Book Value to Liabilities (MVEBL), and Sales to Total Asset (STA) in textile sector companies that are flat on the Indonesia Stock Exchange for the period 2016 - 2019 show that the significance value is less than 0.005 or equal to 0.000 so it can be said that the independent variable In this study, it has a simultaneous influence on financial distress in a textile company.

Therefore, the smaller the significance value obtained by a group, the greater or stronger the influence it has. It can be concluded that Working Capital to Total Asset (WCTA), Retained Earning to Total Asset (RETA), Earning Before Interest and Tax to Total Asset (EBITA), Market Value of Equity Book Value Auto Liabilities (MVEBL), and Sales to Total Asset (STA) has a simultaneous effect on financial distress.

### 5.1. The Effect of Working Capital to Total Asset Partially on Financial Distress

The regression test results for the working capital to total assets variable show the coefficient value of 4,990 with a significant level of 1,000, greater than 0.05, indicating that H0 is accepted and H1 is rejected. This means that the variable working capital to total assets has a positive but insignificant effect on financial distress. This occurs because negative net working capital is likely to face problems in covering its short-term liabilities because there are not enough current assets to cover these liabilities. Conversely, if a company with positive working capital will rarely face difficulties in paying off its obligations.

The results of this study are in line with the results of research [Nugraha, 2018] which states that low working capital turnover indicates the ineffectiveness of the company's working capital so that it can cause a probability of financial distress, so that working capital turnover has a negative relationship pattern to financial distress.

Meanwhile, research [Meiawan, 2017] shows that WCTA has an effect on financial distress because working capital has a minus average value because the number of companies from year to year experiences negative WCTA on financial distress.

### 5.2. The Effect of Retained Earning to Total Asset Partially on Financial Distress

The regression test results for the variable retained earnings to total assets show a negative coefficient value of -2,909 with a significance level of 1,000, greater than 0.05, indicating that H0 is accepted and H1 is rejected. This means that the retained earnings to total assets variable has a negative but insignificant effect on financial distress.

This happens because retained earnings increase from the company's total assets so that it does not experience financial distress. The higher the company's retained earnings, the better it is in managing company assets.

This is in line with research [Mmeiawan, 2017] which states that retained earnings do not have a significant effect on prediction of financial distress. This shows that high profitability indicates the prosperity of a company.

In contrast to research (Minda and Irma, 2015) which shows that RETA affects financial distress. This shows that the higher the RETA value, the more prosperous the company is in managing its profitability, which means that the company has high retained earnings and the impact of the company is experiencing the impact of financial distress.

### 5.3. The Effect of Partial Earning Before Interest and Tax to Total Asset on Financial Distress

The regression test results for earnings before interest and tax to total assets show a negative coefficient of -219,916 with a significance level of 0.997, greater than 0.05, indicating that H0 is accepted and H1 is rejected. This means that the variable earning before interest and tax to total assets has a negative but insignificant effect on financial distress.

This happened because of the increase in profit, which made financial conditions better. Because the higher the profit value, it means that the company is getting better at managing company assets. The results of this study are in line with research [Wulandari, 2017] which states that the high company expenses and profits that the company receives are proportional to the amount of total assets.

### 5.4. The Effect of Partial Market Value of Equity to Book Value of Liabilities on Financial Distress

The regression test results for market value of equity to book value liabilities show a negative regression coefficient of -41,175. with a significant level of 0.991 more than 0.05 which indicates that H0 is accepted and H1 is rejected. This means that the market value of equity to book value variable has a negative but not significant effect on financial distress.

This happens because the company has a high equity market value so that the company is able to manage its capital properly. Because the higher the market value of equity in a company, the better the company is with the assets it owns. This means that the textile sector companies are able to fulfill their liabilities.

The results of this study are the same as the results of research [Meiawan, 2017] which states that market value of equity to book value of liabilities has no effect on financial distress. This occurs because the high market value generated by the company is able to be managed with the company's capital properly.

### 5.5. The Effect of Sales to Total Asset Partially on Financial Distress

The regression test results on sales to total assets show that the negative regression coefficient value is -72,946 with a significance value of 0.993 greater than 0.05. This

means that sales to total assets have a negative but insignificant effect on financial distress.

This is due to increased sales of people's purchasing power. because the higher the sales, the better the company in managing its assets.

The results of this study are in line with the results of research [Muflihah, 2017] which states that sales growth has no significant effect on financial distress.

## 6. Research Findings

In the textile sub-sector with 14 companies, there are 7 companies experiencing financial distress, namely ARGO, ESTI, HDTX, MYTX, RICY, SSTM, and UNIT. There are 2 companies in the gray area, namely INDR and SRIL. And there are 5 healthy companies namely PBRX, POLY, TFCO, TRIS, and STAR.

In this case the factors causing the bankruptcy of textile companies are not only financial problems, but can also occur from other factors such as the China-ASEAN Free Trade Area (CAFTA) factor, namely an agreement between China and ASEAN countries to hold free trade with customs tariffs. enter up to 0% for Chinese and ASEAN products. With the CAFTA, the textile industry's competitiveness is weak compared to Chinese products. Textile companies in Indonesia can compete with Chinese products by improving the quality of their products.

In addition to other factors, such as inefficient or incompetent company management, for example failure to anticipate and adapt to recessions or unfavorable industry trends. To improve the management system, it is necessary to control and monitor every running process, an ideal organizational structure, reviewing the effectiveness of the existing system within the company, and reviewing the commitment of the company leadership.

## 7. Research Limitations

In carrying out this research, there are various things that limit the implementation of the research that can influence the results of this study.

The limitations are as follows:

1. This study only uses a sample of textile companies that do not include other companies.
2. The research year used is 2016 - 2019 in textile companies listed on the Indonesia Stock Exchange (IDX), so the number of samples is limited.

3. The independent variable used in this study only uses the Altman z score model so that there are other models that have more influence on financial distress.

4. The limited number of samples in this study is only 56 company data

# 8. Conclusion

## 8.1. Conclusion

This study aims to test whether the Altman Z-Score Model affects financial distress in textile companies listed on the Indonesia Stock Exchange (BEI) for the period 2016 - 2019. In this research, the Altman Model is used to see the effect on financial distress: Working Capital to Total Asset, Retained Earning to Total Asset, Earning Before Interest and Tax to Total Asset, Market Value of Equity to Book Value of Liabilities, and Sales to Total Asset. Based on the discussion, the following conclusions are obtained:

1. Working Capital to Total Asset, Retainerd Earning to Total Asset, Earning Before Interest and Tax to Total Asset, Market Value of Equity to Book Value of Liabilities, dan Sales to Total Asset working simultaneously on financial distress.

2. Working Capital to Total Asset, Retainerd Earning to Total Asset, Earning Before Interest and Tax to Total Asset, Market Value of Equity to Book Value of Liabilities, dan Sales to Total Asset partially has no effect to Financial Distress

## 8.2. Suggestion

Based on the results of the analysis and the conclusions of this study, the following suggestions can be made:

1. For Company

   The company must be able to maintain the stability of company management and maintain financial performance by controlling risks that can cause financial difficulties for the company. Predicting bankruptcy from an early age is important in order to prevent the company from going bankrupt and be able to make self-improvement

2. For Investor

The results obtained from the analysis of the Altman Z-Score model can be used as a description of the company to be invested and used as a consideration for determining steps in investment or investment decisions.

3. For Researchers

If you want to use the same research, it is recommended to use other bankruptcy prediction models, such as Springate, Zmijweski, then it can be used as a comparison with the Altman Z- Score model. Because seen from the research results, Altman's model cannot be used as an appropriate tool to predict bankruptcy.

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