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FINANCIAL RATIO EFFECT TO CORPORATE BANKRUPTCY

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ABSTRACT

Company bankruptcy is a phenomenon that often occurs in the business world, be it caused by external factors or internal factors. It would be better for companies to be able to analyze predictions earlier in order to avoid insolvency and prevent unwanted things. Companies can assess the condition of the company in its activities by paying attention to its financial flows and making decisions in planning to maintain the company so that the company can survive and compete. The purpose of this research is to predict the tendency of the Corporate Bankruptcy condition using the Altman Z-score method and to analyze the effect of financial ratios on bankruptcy. The independent variable is Corporate Bankruptcy and the dependent variable consists of the Liquidity Ratio, Solvency Ratio, and Profitability Ratio.Data used in this study is secondary data, namely financial reports from textile and garment companies listed on the Indonesia Stock Exchange for the period 2015-2019. The results of this study are the liquidity ratio has an effect on bankruptcy, while the solvency ratio has significant effect and the profitability ratio has effect on bankruptcy. The suggestion for this research is that the company is expected to be able to analyze the risk of bankruptcy earlier and evaluate the financial performance and assets, in addition, it is hoped that further researchers can use other methods as a comparison or prove that the Altman method is the best method in predicting bankruptcy.

INTRODUCTION

In the midst of global economic uncertainty, Indonesia has total exports of US$180,215,034.44 and total imports of US$188,711,171.62 which leads to a negative trade balance of US$-8,496,137.18. Average Tariff the Weighted Average Effectively Applied (excise) for Indonesia is 2% and the Most Preferred Nation Weighted Rate (MFN) is 5.89%. Trade growth of 2.57% compared to world growth of 3.50%. Indonesia's GDP is

US$1,042,173,300,600. Indonesia's services exports are US$28,002,536,921 and service imports are US$35,070,666,252. Indonesia's exports of goods and services as a percentage of GDP were 20.97% and imports of goods and services as a percentage of GDP were 22.06%.

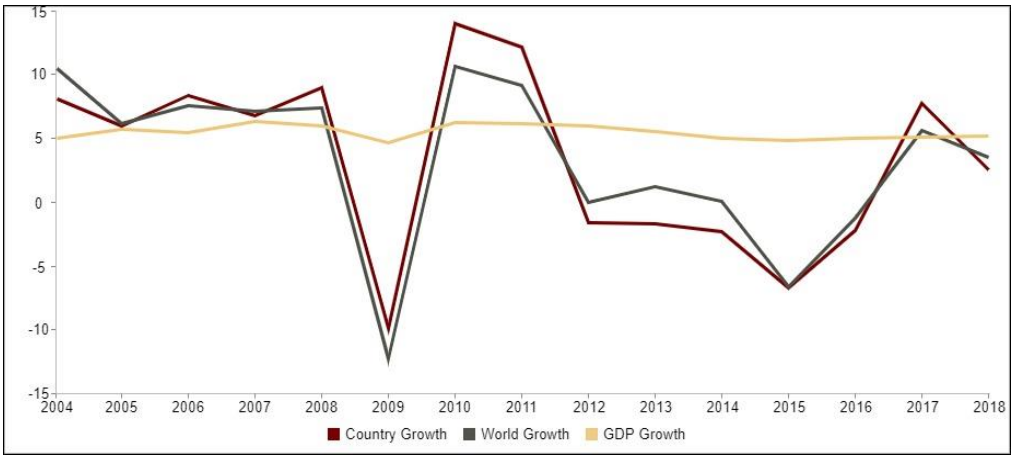

Figure 1 Indonesian Economic Growth V / S World Growth V / S GDP Growth

From the above phenomena, it can be seen that there are world economic fluctuations that move very dynamically in every company where bankruptcy predictions are needed to anticipate the risk of a company's inability to manage finances to continue to live in its business.

Companies in Indonesia, like other companies in the world, are also not free from the risk of bankruptcy. Of course, this applies to every company, whether small-scale companies or large-scale companies. The impact of these economic fluctuations is also felt by companies listed on the Indonesia Stock Exchange. In the 2015-2019 periods, the Indonesia Stock Exchange (IDX) has delisted 16 issuers on the stock for reasons of bankruptcy or other reasons. Company bankruptcy begins with the emergence of financial difficulties. The financial difficulties of a company can be reflected in the performance indicators, namely if the company experiences short-term financial difficulties (liquidity) which are not immediately resolved, it will result in long-term financial difficulties (solvency) which can lead to the bankruptcy of a company (Suharman, 2007).

This research limits the scope only to textile and garment companies, due to the large number of imported textile products in the domestic market so that domestic products become uncompetitive due to cheaper imported products, coupled with the global economic crisis that worsens the performance of national trade. This also causes the world price of cotton raw material to rise and causes the company's operating costs to increase. Besides that, the implementation of high taxes as well as the increase in minimum regional wage made many producers out of business. This reason is also supported by

empirical facts, namely the decline in the contribution of exports to Indonesia's total exports. There is a decline in the contribution of the textile and garment industry to industrial growth, and the number of units of the textile and garment industry units in Indonesia has decreased.

Profits are very important in a company; a decline in company profits can interfere with company activities and can even lead to bankruptcy if they occur continuously so that it has an impact on the sustainability of the domestic textile and garment industry. Therefore, it is necessary to conduct a study on financial performance analysis using the Z-score method to determine the bankruptcy rate of domestic textile and garment companies.

An unstable company condition will be detrimental for investors. Investors will be worried if they cannot get the expected return on investment. Investors certainly do not want a form of loss from detrimental investment activities because companies invested in capital experience corporate bankruptcy which will lead to bankruptcy. Therefore, investors need to sort out the companies that can provide a return or profit on their investment through financial analysis and analyzing company health predictions. Financial analysis is very important to be able to measure the health level of a company; Based on previous research, several financial analysis indicators that have the biggest impact can be explained through liquidity ratios, solvency ratios, and profitability ratios.

Liquidity is an indicator that measures a company's ability to pay all its short-term financial liabilities at maturity using available current assets. A high level of liquidity means that the company is more liquid and has a greater ability to pay off short-term obligations; this is good for the company not to be liquidated due to the company's inability to pay its short-term obligations.

Solvency is the ratio used to measure the maturity of the company's assets to be financed with debt. That is, how much debt the company bears compared to its assets. The solvency ratio is used to measure the company's ability to pay all its obligations, both short and long term.

Profitability is the company's ability to generate profits. Often, profit is a measure of the performance of a company, which means that when the company has high profits, it means that its performance is good and vice versa. If the gross profit margin has not changed too much over several periods but the net profit margin has decreased, then it may be due to higher sales, general and administrative costs than the sale, or a higher tax rate.

According to Susanti (2016), bankruptcy is a condition that is strictly avoided by every company. Various ways are always considered and done to avoid bankruptcy. Bankruptcy analysis is one way that can be used to predict bankruptcy. This analysis is useful for companies in order to anticipate what is needed from the initial warning of bankruptcy. The earlier the signs of

bankruptcy are found, the better it is for management, because they can make improvements from the start (Hanafi, 2003).

Altman revealed that the causes of company bankruptcy include economic failure, business failure, technical insolvency, and insolvency in bankruptcy, legal bankruptcy.

This study uses the prediction model of Corporate Bankruptcy in his research, namely the Altman model (1968). From this study, there are 18 companies, 12 of which cannot be analyzed due to incomplete data and discrepancies in createria because the currency used is dollars and 6 of them can be analyzed in the past. Produce an image spectrum like the graph below:

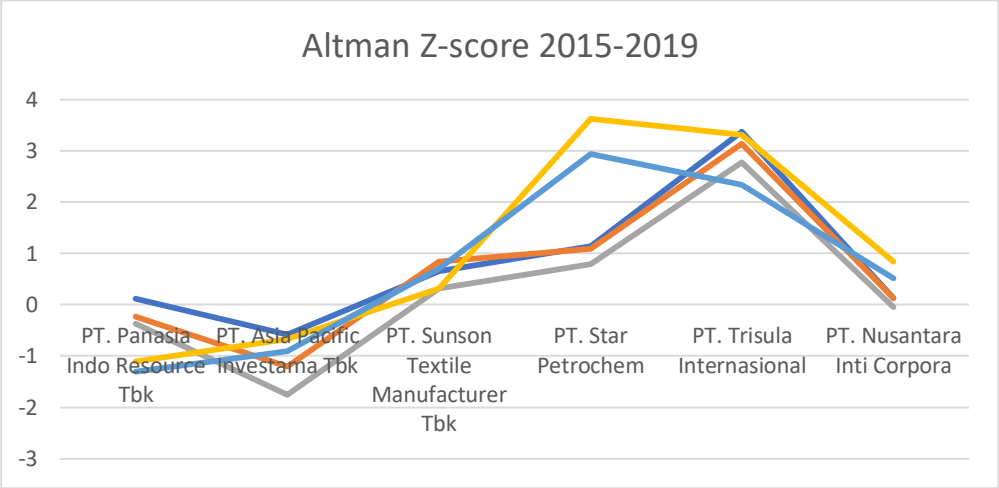

Figure 2 Altman Z-score Garments and Textiles Companies in 2015-2019

Based on the phenomena described above, researchers are interested in conducting research on the condition of corporate bankruptcy by using the Altman method with samples of financial statements of textile and garment companies listed on the Indonesia Stock Exchange from 2015-2019. The reason for choosing textile and garment companies is because this industrial sector has experienced a large decline in export activity coupled with increased import activity and many textile factories are out of business, therefore the authors are interested in examining the condition of Corporate Bankruptcy in textile and garment companies using financial ratios as research dimension.

From the background description, the problem in this study is whether financial ratios have an effect on the bankruptcy of the textile & garment manufacturing industry in Indonesia using the Altman Z-Score method.

LITERATURE REVIEW

Company financial failure is the inability of a company to pay its financial obligations at maturity which results in bankruptcy (Kasmir, 2014; Munawir,

2012). In the life of dynamic business activities, the truth is - not all companies can survive over the long term. Many companies experience problems managing company assets which often lead to bankruptcy.

There are several tools used to detect bankruptcy. Some of these detection tools are generated from various studies conducted by several experts who have concerns about bankruptcy in various companies in the world. Some of the most commonly used bankruptcy detection tools include the Altman Z-Score, the Springate Model, and the Zmijewski Model.

The Altman Z-score analysis was first put forward by Edward I Altman in 1968 as a result of his research. After selecting 22 financial ratios, we find 5 ratios that can be combined to see which companies are bankrupt and not bankrupt. Altman did some research with company objects in different conditions. The score must be compared with the following standard assessments to assess the viability of the company whether it is in a safe zone, a gray zone or a danger zone. Research conducted by Ichsani et al.(2020) said that every company's failure can be observed from the conditions of company's financial, by using Altman Z-score analysis consisting of working capital to total assets as X1, retained earnings to total assets as X2, earnings before interest and tax (EBIT) to total assets as X3, market value to book value of debt as X4 and lastly, sales to total assets to stock prices as X5.

Financial Ratio is a company financial analysis tool to assess the performance of a company based on the comparison of financial data contained in the financial statements (balance sheet, profit / loss statement, cash flow statement).

Liquidity ratio is a ratio that describes the ability and capability of the company to meet its short-term obligations which are due soon.

Solvabiloty Ratio a ratio that describes the company's ability to fulfill all of its obligations. As with the liquidity ratio, this ratio is also needed for the purposes of credit analysis or financial risk analysis.

Profitability ratio describes the company's ability to generate profits in relation to sales, total assets, and own capital or investment (Nugraha et al., 2020). According to Wijaya and Yudawisastra (2019), profitability measures every company's ability to produce and gain profits, if the company is able to produce a large number of profits, it is considered as a successful company, thus, attracting the investors. The profitability of a company is measured by the company's ability to use its assets productively by comparing the profits earned in a period with the total assets of the company.

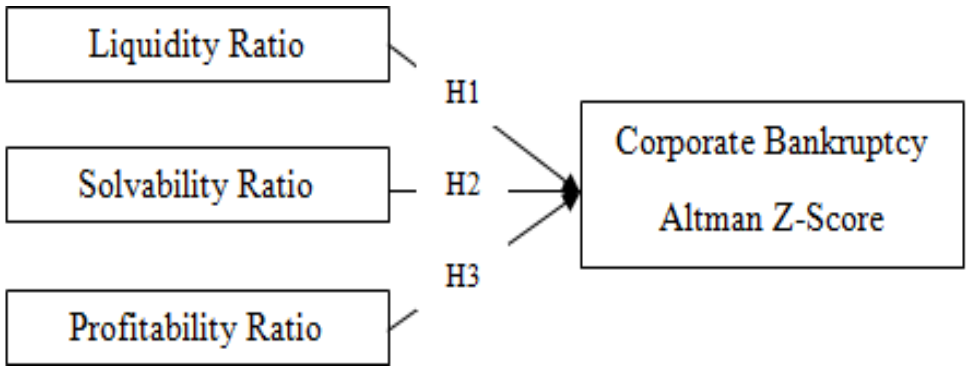

Figure 3. Research Hypothesis

H1: Liquidity Ratio AffectCorporate Bankruptcy
H2: Solvability Ratio AffectCorporate Bankruptcy
H3: Profitability Ratio AffectCorporate Bankruptcy

METHODS

The research approach that the writer uses in this research is a descriptive and verification approach, because there are variables that are examined for the relationship and the purpose is to present a structured, accurate and factual picture. Regarding the facts and the relationship between the variables studied, namely the effect of financial ratios on bankruptcy using the Altman Z-score method.

The population of this study is the financial statements of textile and garment companies on the Indonesia Stock Exchange (IDX) for 5 years starting from 2015 to 2019, so that a population of 18 companies is obtained. In determining the sample that will be used in this study, the authors use a technique based on purposive sampling technique. The criteria for textile and garment companies according to the purposive sampling technique were selected to be used as research samples as follows:

1. Textile and garment companies listed on the Indonesia Stock Exchange during the 2015-2019 periods.

2. Textile and garment companies that have complete data in accordance with the author's needs, such as the condition of textile manufacturing which was shaken because of imports so that it is likely to experience Corporate Bankruptcy.

3. Companies that only use the rupiah currency in their financial statements
Based on the above criteria, the samples used in this study were 6 companies.

Table 1 Research Sample

No	Company Names
1	Panasia Indo Resource
2	Asia Pacific Investama
3	Sunson Tekstil Manufacturer
4	Star Petrochem
5	Trisula International
6	Nusantara Inti Corpora

Table 2 Variable Operationalization

Variable	Dimension	Indicator	Scale
Corporate Bankruptcy	Altman Z-score $Z = 1{,}2\ X_1 + 1{,}4\ X_2 + 3{,}3\ X_3 + 0{,}6\ X_4 + 1{,}0\ X_5$	$X1 = \frac{\text{Working Capital}}{\text{Total Asset}}$ $X2 = \frac{\text{Retained Earning}}{\text{Total Asset}}$ $X3 = \frac{\text{Earning Before Interest}}{\text{Tax to Total Asset}}$ $X4 = \frac{\text{Market Value of Equity}}{\text{Book Value of Debt}}$ $X5 = \frac{\text{Sales}}{\text{Total Asset}}$	Ratio
Liquidity	Current Ratio	$\frac{\text{Current Asset}}{\text{Current Liabilities}}$	Ratio
Solvability	Debt to Asset Ratio	$\frac{\text{Total Debt}}{\text{Total Asset}}$	Ratio
Profitability	Net Profit Margin	$\frac{\text{Net Profit}}{\text{Sales}}$	Ratio

RESULTS AND DISCUSSION

After performing the Chow test, Hausman test and Lagrange Multiplier test, it can be concluded that the panel data regression estimation is more precise using the Random Effect Model (REM) model for this study. With the help of Eviews 9.0 software in data processing, the following results are obtained:

Table 3 Research Result

Dependent Variable: ALTMAN_ZSCORE
Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.071123	1.318512	3.846097	0.0002
LIQUIDITY	0.295137	0.235578	1.252817	0.0212
SOLVABILITY	0.001118	0.000262	4.268019	0.0000
PROFITABILITY	-0.009324	0.047827	0.194956	0.0458

Based on the table above, the regression model in this study is as follows:

$$Y = 5.0711 + 0.2951X1 + 0.0011X2 - 0.009X3 + e$$

Whereas:
X1 : Liquidity Ratio
X2 : Solvability Ratio
X3 : Profitability Ratio
Y : Corporate Bankruptcy

The interpretation of the results of the regression analysis above is as follows:

1. The data regression model constant above is 5.0711, indicating that if liquidity, solvency and profitability are equal to zero; the Altman Z-Score is 5.0711.

2. The liquidity regression coefficient value is positive at 0.2951 which indicates that if liquidity increases by one unit, the Altman Z-Score increases by 0.2951.

3. The solvency regression coefficient value is positive of 0.0011 which indicates that if the solvency increases by one unit, the Altman Z-Score increases by 0.0011.

4. The profitability regression coefficient value is negative of 0.009 which indicates that if the profitability increases by one unit, the Altman Z-Score will decrease by 0.009.

Table 4 F-Test Result

Weighted Statistics

R-squared	0.351293	Mean dependent var	1.631435
Adjusted R-squared	0.327917	S.D. dependent var	0.596736
S.E. of regression	0.489208	Sum squared resid	26.56503
F-statistic	15.02743	Durbin-Watson stat	1.477993
Prob(F-statistic)	0.000000		

Based on the results above, it shows that Prob (F-statistic) is worth 0.000000 <0.05, it means that Liquidity, Solvency and Profitability have a linear relationship to the Altman Z-Score or the estimation model used in this study is correct (fix) and can be used for further analysis.Based on the table above, it is known that the result value R^2 = 0.351293, it can be concluded that the contribution of the liquidity, solvency and profitability variables on the Altman Z-Score is 35.1293% and 64.871% is influenced by other factors.

Table 5 T-test Result

Dependent Variable: ALTMAN_ZSCORE

Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.071123	1.318512	3.846097	0.0002
LIQUIDITY	0.295137	0.235578	1.252817	0.0212
SOLVABILITY	0.001118	0.000262	4.268019	0.0000
PROFITABILITY	-0.009324	0.047827	0.194956	0.0458

Based on the test criteria, it appears that the tcount of the liquidity variable is 0.0212 smaller than alpha 5%. So it can be seen that the liquidity ratio has an effect on bankruptcy with the Altman Z-Score.

Based on the test criteria previously described, it appears that the tcount value of the solvency variable is 0.0000 smaller than alpha 5%. This means that the Solvency variable has a significant effect on the Altman Z-Score.

Profitability has a significant effect on the Altman Z-Score based on the late test criteria described previously. It can be seen that the tcount of the Profitability variable is 0.0458 smaller than alpha 5%. This indicates that the Profitability variable has an effect on bankruptcy.

DISCUSSION

The results showed that the liquidity ratio had an effect on company bankruptcy. This is reinforced by the results of data processing which show the results of 0.0212 are smaller than alpha 5%, so it can be seen that the liquidity ratio affects the company's bankruptcy. The liquidity ratio is a ratio that shows the company's ability to pay off short-term debt. The greater the percentage of this ratio the greater the company's ability to pay off short-term debt. If the company has difficulty in paying off its short-term debt, over time the company will be threatened with bankruptcy. This is because if the company is unable to pay off its short-term debt, the company's debt will accumulate and the company will face the risk of paying interest and fines. If this is not resolved immediately, the company could be threatened with entering the area of bankruptcy. This result is supported by research conducted by ChristonSimanjuntak (2017), Anjum (2012) and Masdupi (2018) that the liquidity ratio affects bankruptcy in companies.

Based on the research results previously described, the solvency ratio has an effect on company bankruptcy. This is indicated by the results of data processing of 0.0000 smaller than the specified alpha, so it can be concluded that the solvency ratio has an effect on company bankruptcy. The solvency

ratio or often referred to as the leverage ratio is a ratio that shows the composition of the company's debt when compared to the company's assets or when compared to the company's equity. The higher the percentage of this ratio, it shows that the company is in bad condition and increases the risk of company bankruptcy. This is because the greater the percentage of the solvency ratio, the greater the risk of the company not being able to pay off its debts originating from company assets or those originating from company equity. Even if the solvency ratio is 1 or 100%, then this shows that the size of the company's debt and the size of the company's assets is the same and this is very dangerous for the company's survival. These results are supported by research conducted by Rahmasari (2018), Ni WayanAgusistini (2019) and Indira ShofiaMaulida (2018) that the solvency ratio has an effect on bankruptcy.

The profitability ratio has an influence on company bankruptcy but in the opposite direction. This statement was obtained after seeing the test results using EVIEWS which gave 0.0458 results smaller than 5%. The profitability ratio is the ratio that most often concerns investors and companies; this is because this ratio shows the percentage of the company's profits when compared to assets, equity and sales. If the percentage of the profitability ratio is large, it shows that the company is in good and profitable condition so that it will reduce the company's potential to be in a condition of bankruptcy. The greater the profits earned by the company, the company can use the profits it makes for its business turnover and will reduce the company's potential to be in a condition of bankruptcy. This result is supported by the research of Ansar (2018) and Isachenko (2015) which states the same thing.

CONCLUSION

This study aims to determine the analysis of the effect of financial ratios on bankruptcy using the Altman method of textile and garment companies listed on the Indonesia Stock Exchange in the 2015-2019 observation periods. Based on the data analysis carried out, the conclusion that can be drawn is that the liquidity ratio variable has a significant effect on corporate bankruptcy, the solvency ratio variable has a significant effect on corporate bankruptcy, the profitability ratio variable has a significant negative effect on bankruptcy.

For companies that have a Z-score of 1.81 <z-score <2.99 with the category of prone to bankruptcy (gray area) and companies that have a z-score of <1.81 with the bankruptcy category, it is recommended that company management be able to analyze and evaluate each factor that affects performance. In the section, capital flows are expected to be better managed by paying more attention to liquidity ratios and balancing existing current assets. In addition, to carry out sales and trading activities in accordance with market needs to be able to compete in the international market. Investors are able to analyze the company's financial performance before investing their funds in companies that have financial strength to avoid losses in their investment activities. 2. For further researchers, it is suggested to use other bankruptcy methods as well so

that they can be used as a comparison in predicting bankruptcy analysis as well as conducting research on other sectors and subsectors apart from textiles and garments to prove that the Altman Z score method can be used to predict bankruptcy in different research.

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