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Analysis of Potential Bankrupting in Leasing Companies in Indonesia Stock Exchange Period 2015-2019 by Using Altman Z-Score Method

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ABSTRACT

This research aims to identify the potential bankruptcy of leasing companies listed on the Indonesia Stock Exchange (BEI). In addition, this study also aims to determine whether the analysis of financial ratios as measured by liquidity ratios, solvency, and profitability affects bankruptcy. This research uses a descriptive analysis method using secondary data as research material. Collecting data in the form of financial reports and other supporting data using documentation and literature study techniques. The sample in this study was leasing companies listed on the Indonesia Stock Exchange (IDX) during the 2015 - 2019 period. Meanwhile, the data analysis methods used in this study were the Altman Z-Score method and Fixed Effect Model Analysis. The results in this study found that the bankruptcy analysis from 2015 to 2019 shows that there are 2 leasing companies (15.38%) predicted to go bankrupt, 4 leasing companies (30.77%) predicted to enter the grey area, and 7 leasing companies. others (53.85%) predicted to be healthy. In addition, it can also be seen that the liquidity ratio has a positive and significant effect on potential bankruptcy, solvency has a negative and significant effect on potential bankruptcy, and profitability does not have a significant effect on a potential bankruptcy.

Keywords: bankruptcy analysis, financial ratio analysis, liquidity, solvency, profitability.

BACKGROUND

Financial statements are one of the many tools for companies to see the company's performance and are used to estimate the company's continuation for the next period. The company's performance and the potential for bankruptcy are predicted by using financial statement analysis. The results of financial reporting can be seen up and down financial ratios every year (Tri Wahyu, et al, 2016). Bankruptcy that occurs is an inability of the company to manage the company both in terms of human management and financial management so that the company has insufficient capital constraints to run the company. Bankruptcy can be interpreted as a company experiencing failure, be it economic failure or business failure. If the economic failure occurs, the company will not be able to cover the costs that arise in its business operations. Meanwhile, business failure is a failure that occurs because the business operationally stops due to an inability to fulfil its obligations (Altman, 2005).

The phenomenon of bankruptcy in companies often occurs in leasing companies in Indonesia. Data from the Financial Services Authority (OJK) recorded the revocation of business licenses for 27 companies from 2015 to 2019. The revocation of business licenses could be due to several factors, including the process of operating a finance company that was not by the regulations set by the OJK, governance and poor risk management as a result of poor management, the problem is

the statement of financial position which records the company's losses which are bigger than the previous year's report. The company's losses were initially caused by a high level of non-performing financing (NPF) which would continuously lead to a poor level of financial health and in the end the company would record losses and thus not provide financial reports to the OJK.

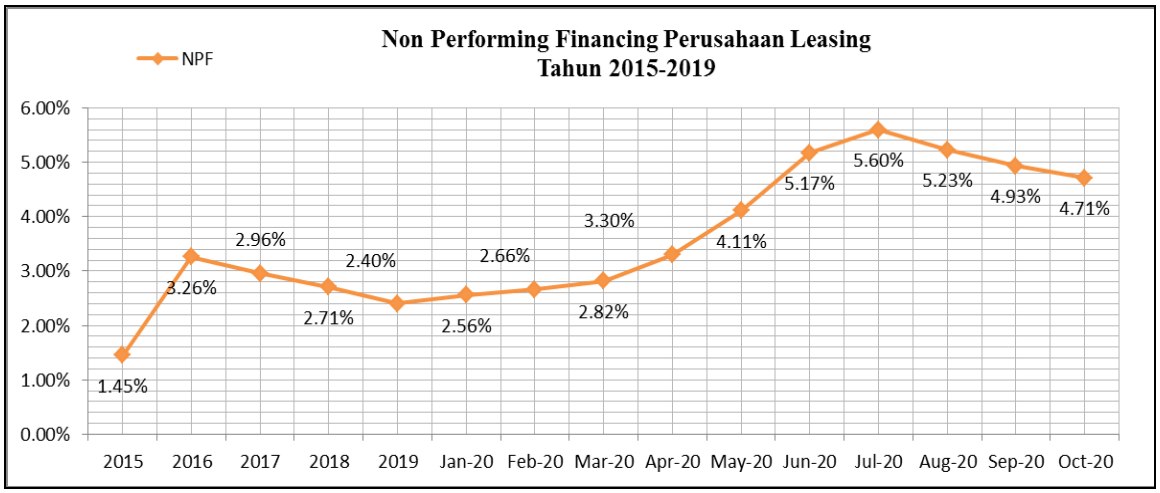

Figure 1: Non-Performing Financing (NPF) Conditions for Leasing Companies 2015 – 2019

Based on data on the condition of non-performing financing (NPF) of leasing companies, there was a fluctuating trend and tended to decline in 2019, which was 2.40%. However, entering 2020, there was an increase in the NPF spike starting from April to August 2020 reaching 5% and decreasing as of September to October 2020, but still far above the NPF in 2019. This indicates that the NPF of the leasing company has reached a level that exceeds the standard limit. determined by OJK, which is 5%. The increase in NPF in 2020 was caused by the Covid-19 pandemic which caused the economy to decline and affected people's purchasing power and ability to pay for ongoing contracts. OJK has approved leasing companies to carry out various business products, namely capital, working capital costs, multipurpose, and another financing that has been approved by the OJK.

The decline in financing quality as seen from the Non-Performing Financing (NPF) is available and then analyzed the financial statements and financial ratios of each leasing company. As for seeing the condition of the company is still financially healthy by analyzing the financial statements of the leasing company from several observation periods. Financial statement cash flow analysis uses several financial ratios, such as liquidity, solvency and profitability. The analysis of potential bankruptcy for this study uses the Altman Z-score model with several variations of financial ratios to predict the level of potential bankruptcy using inferential statistical techniques. Altman Z-score is a method used as an effort to predict bankruptcy by calculating the value of financial comparisons written into an equation. The calculated ratios can be interpreted as the company's ability to manage its assets. Several aspects are covered, including working capital to total assets, retained earnings to total assets, earnings before interest and tax to total assets ratio and equity to book value of total liabilities.

Based on the information and data above, the researcher will examine the leasing company entitled, "Analysis of Bankruptcy Potentials in Leasing Companies on the Indonesia Stock Exchange for the 2015-2019 Period Using the Altman Z-Score Method".

Altman Z-Score Method and Bankruptcy Analysis

Altman (1968) has a concept of a model known as the Altman Z-score model which is used as a stage to ascertain the possibilities that cause company bankruptcy by taking into account financial comparisons that can be calculated from company liquidity. Financial difficulties will be connected with bankruptcy, ie when the company's financial performance is in an unhealthy condition, it can be known through the calculation of the Z-Score method. This Z-Score analysis aims to predict bankruptcy and as a measure of all the company's financial performance (Yunus, et al., 2020). The calculation of financial ratio standards is shown through the analysis of the Altman Z-score model for bankruptcy (Komang, et al, 2019). Altman Z-Score model changes, which eliminates the fifth variable, namely sales to total assets which are only used in manufacturing companies, so that only 4 variables are used (for non-manufacturing companies).

Several indicators indicate a company has the potential to go bankrupt, namely: Business environment indicators, the low growth of the economic sector triggers small business opportunities coupled with the number of new companies that have sprung up. Combination Indicators (External and Internal), namely the Company is not able to deal with external and internal conditions at the same time to be faced. Working capital to total assets (ratio of working capital to total assets); is a comparison to measure the company's capability in creating working capital through its assets.

Retained earnings to total assets (ratio of retained earnings to total assets); is a comparison to determine the company's capabilities to create profits as long as the company is running. Earnings before interest and taxes to total assets (ratio of EBIT to total assets); is a comparison to determine the ability to return assets calculated through the distribution of profit before interest and tax (EBIT). The market value of equity to book value of liabilities (ratio of capital market value to total debt); is a comparison to show the company's capability in paying (fulfilling) long-term obligations from the value of its capital.

Maria Florida Sagho and Ni Ketut Lely Aryani's research (2015) entitled Research, Using the Modified Altman Z-score Method to Predict Bankruptcy of Banks Listed on the Indonesia Stock Exchange. The analytical technique used is the Altman Z-Score method with 4 variables (formulas for non-manufacturing companies) which are categorized into 3 classifications, namely healthy grey and potential for bankruptcy. Research I Komang Try Satriawan Korry, et al (2019) with the title, Analysis of Bankruptcy Predictions Based on the Altman Z-Score Method with Case Studies in State-Owned Banks Listed on the Indonesia Stock Exchange. This study uses financial statement data from the BEI for the period 2014 to 2017 with a population of all listed state-owned banks (BNI, BRI, BTN, Mandiri) using saturated sampling. Rizki Sri Lasmini's research (2019) entitled Analysis of Financial Statements as a Bankruptcy Prediction with the Z-Score Method on 3 Types of Banks in Indonesia. The research method is based on descriptive quantitative data with a population of 3 banks in Indonesia, namely government, private and foreign (mixed) banks and uses random sampling. The results show the results of bankruptcy predictions in banking companies with 3 different types of ownership in Indonesia, namely Government Banks (Banks A, B, C and D), National Private Banks (K, L, M and N Banks), and Joint Venture Banks (Banks K, L, M and N).

Conceptual Framework

Based on the previous literature review, the conceptual framework in this study is the process of analyzing financial statements in non-manufacturing companies consisting of the following variables,

namely working capital (X1), retained earnings (X2), earnings before interest and taxes (X3), as well as the market value of equity to book value of liability (X4).

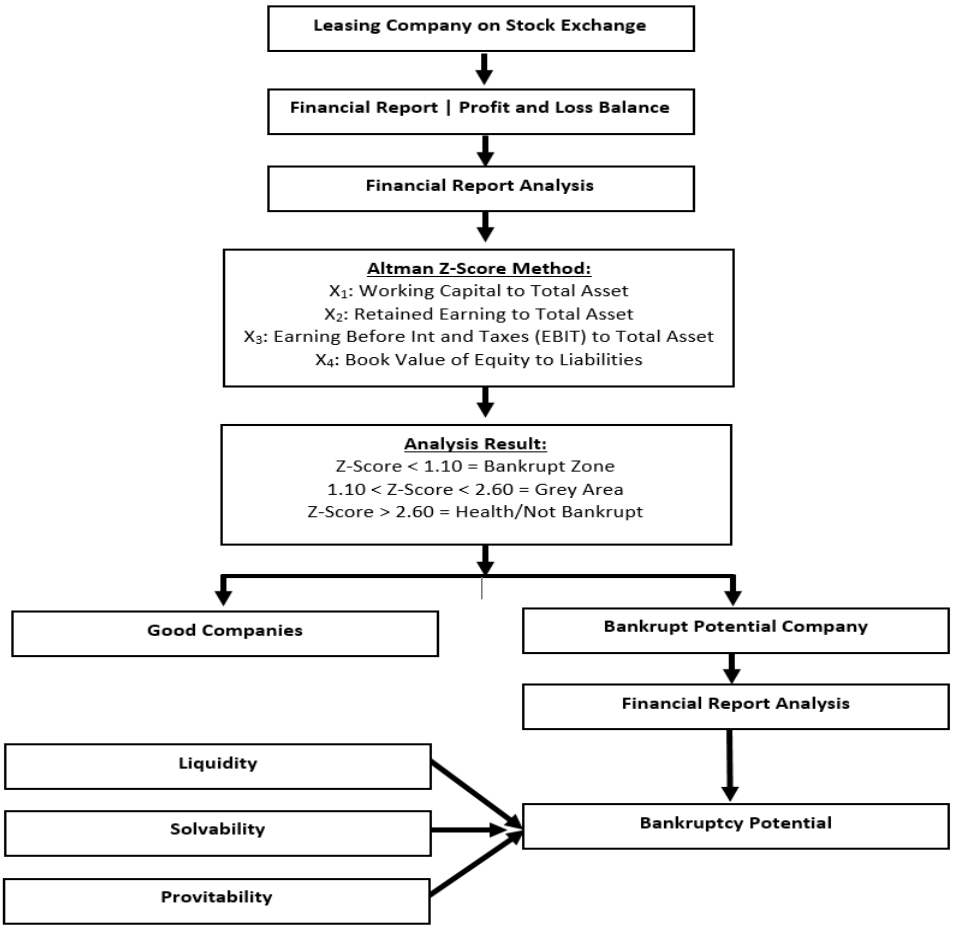

Figure 2. Conceptual Framework

Hypotheses

H1: It is assumed that the liquidity ratio has a positive effect on bankruptcy.
H2: It is assumed that the solvency ratio has a positive effect on bankruptcy.
H3: It is assumed that the profitability ratio has a positive influence on bankruptcy.

RESEARCH METHOD

This research uses the descriptive analysis method and uses secondary data as research material. Secondary data in this study, namely the financial statements for the period 2015 – 2019 on leasing companies listed on the Indonesia Stock Exchange. This research was carried out on the IDX using the official website www.IDX.co.id and the website of the company that wanted to be the research sample. Collecting data in the form of financial reports or supporting data using technical, namely: Documentation study: data that has been documented in an official source in the form of financial reports obtained from the IDX's official website and annual reports from the company's official website. Literature study that is carried out indirectly and relevant to the problem under study by studying and analyzing existing literature, such as various books, related journals, and other digital articles.

The population in this study are 17 leasing companies on the IDX for the 2015-2019 period. The sampling technique in this study used purposive sampling. Companies with published and consistent financial reports from observations for the period December 2015 to December 2019.

Based on the characteristics of the research sample that has been submitted, the total leasing companies listed on the IDX. From a total of 17 listed companies, it is reduced by 4 companies that do not meet the specified criteria. So that the number of samples in this study was 13 respondents.

The data analysis method in this research is quantitative data analysis and uses data in the form of processed numbers. Data analysis was carried out on the financial statement data of leasing companies listed on the IDX and identified the potential for bankruptcy from e-views data processing. The results of processing all financial data are then combined and then conclusions and input from the results of the analysis will be given and strategies and solutions for problems that occur in the financial statements will be given. In the process of analyzing the data, the researcher uses the Altman Z-Score method as a medium to predict the probability of bankruptcy of the leasing company.

Calculation of financial ratios is an activity to see the comparison of numbers contained in financial statements by dividing between numbers in one period or several periods (Kasmir, 2016). This research uses the descriptive analysis method and uses secondary data as research material. Secondary data in this study, namely the financial statements for the period 2015 – 2019 on leasing companies listed on the Indonesia Stock Exchange. The financial ratio analysis is carried out on the Liquidity Ratio, Solvency Ratio, and Profitability Ratio.

RESULT AND DISCUSSION

After knowing the justification for the value of the Z-Score calculation for each leasing company in the 2015-2019 range, the prediction of bankruptcy for the company can be given with the following explanation.

Table 1. IDX Leasing Company Bankruptcy Prediction

No	Kode	Z-Score				
		2015	2016	2017	2018	2019
1	ADMF	Bankrupt	Grey	Grey	Grey	Grey
2	BBLD	Health	Grey	Grey	Grey	Grey
3	BFIN	Health	Health	Health	Health	Health
4	BPFI	Health	Health	Health	Health	Health
5	CFIN	Health	Health	Health	Grey	Health
6	DEFI	Health	Health	Health	Health	Health
7	HDFA	Grey	Grey	Grey	Bankrupt	Grey
8	IMJS	Health	Health	Health	Health	Health
9	MFIN	Health	Health	Health	Health	Health
10	TIFA	Grey	Grey	Grey	Grey	Health
11	TRUS	Health	Health	Health	Health	Health
12	VRNA	Bankrupt	Grey	Bankrupt	Bankrupt	Grey
13	WOMF	Bankrupt	Bankrupt	Bankrupt	Bankrupt	Grey

Healthy Company

Companies that are categorized as companies that are predicted to be healthy are companies whose Z-Score value is greater than 2.60. Based on the cut off value, it can be seen that there are 7 leasing companies (53.85%) that have healthy predictions every year, which include:

1. BFI Finance Indonesia, Tbk (BFIN)
2. Batavia Prosperindo Finance, Tbk (BPFI)
3. Clipan Finance Indonesia, Tbk (CFIN)
4. Danasupra Erapacific, Tbk (DEFI)
5. Indomobil Multi Jasa, Tbk (IMJS)
6. Mandala Multifinance, Tbk (MFIN)
7. Trust Finance Indonesia, Tbk (TRUS)

Gray Area Company

The category of companies that are predicted to be included in the grey area zone are companies with Z-Score values

ranging from 1.10 to 2.60. Based on the cut off value, it is known that there are 4 leasing companies (30.77%) that have a grey area prediction each year, which include:

1. Adira Dinamika Multi Finance, Tbk. (ADMF)
2. Buana Finance, Tbk. (BBLD)
3. Radana Bhaskara Finance, Tbk (HDFA)
4. Tifa Finance, Tbk. (TIFA)

Bankrupt Potential Company

The category of companies that are predicted to go bankrupt are companies that have a Z-Score lower than 1.10. Based on the cut off value, it can be seen that there are 2 leasing companies (15.38%) that tend to be in the red area or predict bankruptcy, which includes:

1. Verena Multi Finance, Tbk. (VRNA)
2. Wahana Ottomitra Multiartha, Tbk. (WOMF)

These two companies that have the potential to go bankrupt almost every year experience the same conditions from 2015 to 2018. However, in 2019 these two companies are in the grey area zone. This indicates that the financial conditions of the two companies are starting to improve.

Hypothesis testing

Coefficient of Determination (R2)

The value of R-square (R2) for this study is 0.998. It can be interpreted if the interaction between the variables of liquidity ratio, solvency and profitability has a contribution of 99.8% to the potential bankruptcy of leasing companies listed on the IDX, while the remaining 0.2% is affected by other factors not included in this research model.

Simultaneous Significance Test (F Test)

Simultaneous Significance Test (F test) was used to detect the relationship between independent variables simultaneously with the independent variables obtained, namely liquidity, solvency and profitability on a potential bankruptcy. From the results of the data test, the probability value of the F-statistic is 0.000 (significance 5%). This means that these three variables simultaneously affect bankruptcy.

Individual Significance Test (t-Test)

Individual significance test (t-test) in this study was conducted to see the effect of liquidity ratios, solvency and profitability on bankruptcy in leasing companies listed on the IDX partially (individually). Following are the results of the partial test (t-test) in this study.

Table 2. Partial Test Results (t-Test)

No	Variable	Coefficient	t-statistic	Significancy
1	Likuidity (X1)	0,3983	20.45526	0,0000
2	Solvability (X2)	-0,3130	-2.727878	0,0088
3	Profitability (X3)	0,9911	0.859527	0,3942

a. The liquidity ratio has a significance value of 0.000 <0.05, so it can be concluded that if H0 is rejected and H1 is accepted, it means that the liquidity variable (X1) has a significant influence on the independent variable.
b. The solvency ratio has a significance value of 0.0088 <0.05, so it can be concluded that if H0 is rejected and H1 is accepted, it means that the solvency variable (X2) influences the independent variable.
c. The profitability ratio has a significance value of 0.3942 > 0.05, so it can be concluded that if H1 is rejected and H0 is accepted, it means that the profitability variable has no significant effect on the independent variable.

Effect of Liquidity on Potential Bankruptcy

Theoretically, the liquidity ratio is a ratio to measure the liquid level of a company (Kasmir, 2012). This is to obtain certainty and solutions so that the company is not in a state of financial difficulty which will affect the company's bankruptcy (Hidayat, 2013). Companies that are not able to carry out financial management properly or cannot fulfill their maturing obligations are called illiquid companies and will provide more complex problems and will become insolvable (total debt is greater than total assets owned) and the impact is certain on potential bankruptcy. (Christanty, 2010). Almilia and Kritijadi in Triwahyuningtias (2012) concluded that companies that are able to pay off their short-term obligations and fund their company's operating costs look at the company's liquidity ratio.

The Effect of Solvency on Potential Bankruptcy

The second hypothesis in this study states that the solvency ratio affects bankruptcy in leasing companies listed on the IDX. Meanwhile, the results in this study showed that the solvency ratio proved to have a significant negative effect on the Altman Z-score which decreased so that the potential for bankruptcy increased in leasing companies listed on the IDX, so the second hypothesis in this study was accepted.

The larger debt will increase the company's cost burden when it is due, so debt management must be considered so that the debt does not get bigger and the company can pay its obligations and does not interfere with the company's cash flow and company operations. The decision to use third party funds that are too large will have an impact on finances in the future because the obligations increase along with loan interest so that the company experiences financial difficulties (Hidayat, 2013). This is because the leasing company relies too much on its source of capital from debt loans, so the greater the company's debt, the greater the potential for bankruptcy of the company. The results obtained in this study are in line with the results of research by Almilia and Kristijadi (2003) which states that the solvency ratio, namely current debt divided by total assets, has a negative correlation, meaning that solvency hurts the financial distress of a company. The same result was conveyed by Alifiah, et al., (2012), through their research, it is clear that the solvency ratio has a negative relationship to the chances of the company experiencing financial distress that has the potential to go bankrupt.

The Effect of Profitability on the Potential for Bankruptcy

The third hypothesis in this study states that the profitability ratio influence the potential for bankruptcy of leasing companies listed on the Indonesia Stock Exchange, while the results in this study indicate that the profitability ratio has no positive effect on the Altman Z-score value which increases and the potential for bankruptcy increases. Decreased leasing companies listed on the Indonesia Stock Exchange. The company's performance is said to be good if the financial growth is positive, but the company is experiencing financial difficulties, the profitability value is down from the previous year and has a negative value. According to research by Fairuz, et al (2016), the level of profitability will determine whether the company is experiencing financial distress or not. The decisions made by the manager will make the company attract investors to invest so that the company avoids financial difficulties and the potential for bankruptcy will decrease (Hidayat, 2013). Endang (2012) concluded that the success of a company is using its assets productively by using the profitability ratio. Thus the profitability is obtained from the comparison of profit (profit) generated in a certain period of the company's total assets. (2014), in his research found that profitability without a significant impact on bankruptcy. That is, the measured

profitability using ROA on leasing companies cannot be used to predict the probability of bankruptcy of leasing companies listed on the IDX.

CONCLUSION

1. The results of the bankruptcy analysis during the span of 2015 to 2019 show that there are 2 leasing companies (15.38%) that are predicted to go bankrupt in a few years, namely in 2015 to 2018. But in 2019, the company is in the grey zone, due to additional capital from investors as seen from the indicators of assets, equity, income, and profit for the year which showed positive and increasing numbers. Then, 4 leasing companies (30.77%) are predicted to be categorized as grey areas, and 7 other leasing companies (53.85%) are predicted to be healthy.
2. The liquidity ratio has a positive effect on the Altman Z-score which increases, causing the potential for bankruptcy to decrease.
3. The solvency ratio has a significant but negative effect on the Altman Z-score which decreases so that the potential for bankruptcy increases.
4. The profitability ratio does not affect the Altman Z-score so that the potential for bankruptcy decreases.

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