Financial Performance and Prediction of Financial Distress in Food and Beverage Companies Listed on the Indonesia Stock Exchange

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Abstract
Bankruptcy risk is a risk that is avoided by all companies because it can have an impact on the liquidation of company. This study examines several factors that are thought to affect financial distress. Financial distress is measured by the Z-Score from Altman, while the factors that are thought to influence are liquidity as measured by the current ratio (CR), profitability as measured by net profit margin (NPM), leverage as measured by debt to total assets (DTA), and company growth is measured by sales growth. The population of this research are companies in the food and beverage sector on the Indonesia Stock Exchange as many as 32 companies with a sample of 27 companies using purposive sampling technique. Test the hypothesis using multiple regression analysis with a significance level of 0.05. The results show that liquidity and profitability have a significant effect on financial distress, while leverage and company growth have no effect on financial distress.

Keywords: Financial distress, liquidity, profitability, Leverage, Growth

1. Introduction

Financial distress is a condition where the company experiences financial difficulties, the company cannot generate income that can meet its financial obligations or experiences liquidity which will lead to bankruptcy. According to Moediarso and Widyawati (2018) the notion of financial distress is a financial problem experienced by a company before the company went bankrupt. Companies with high debt conditions will experience financial distress more quickly than companies with low debt conditions.

According to Djongkang and Rita (2015) financial distress can also be interpreted where the company suffers a loss or the company's cash cannot or does not meet the company's obligations or debts. The cause of financial distress in the company is due to internal influence factors such as errors in managing company cash, large company debt, and experiencing losses in the near and external period of the company (Fatmawati & Wahidahwati, 2017)

According to various scientists there are several predictive models to be able to determine the occurrence of bankruptcy in a company, one of which is the Altman z-score formulated by Altman, this Altman Z-score model can predict bankruptcy in a company by calculating the values of financial ratios that have a relationship with company liquidity. The results of the

calculation of these ratios are then entered in the formula of an equation that has been discriminated. According to Alif Fikri Alim (2017) the Altman Z-score model has several indices taken based on existing variables that aim to categorize the level of corporate bankruptcy. There are 5 ratios that will be used in the Altman Z-score model, namely Working Capital To Total Assets, Retained Earning To Total Assets, Earning Before Interest and Taxes To Total Assets, Market Value Of Equity To Book Value Of Debt, and Sales To Total Assets. In the Altman Z-score method, there are three classifications for predicting bankruptcy, the first is the cut-off point, namely the bankruptcy zone, the gray zone, and the non-bankrupt zone so that this classification can be a warning for the company.

According to Fransisca (2021) Altman Z-score is a method of analyzing financial distress in companies by calculating several financial ratios into the equation, which will produce information on the ability of the total assets used to finance the company's operational activities so as to generate profits that will be used to meet total liabilities. owned by the company.

Performing a company's financial distress analysis using the results of the Altman Z-score method which will be varied with liquidity, profitability, leverage and growth, can provide important information for internal and external parties. If the results obtained do not indicate that there is financial distress in the company, then this is positive information for investors and creditors, but if the results are the opposite, then this is negative information for investors and creditors in investing their funds in the company (Kuntari and Machmuddah, 2021).

In a study conducted by Aisyah et al. (2017) who conducted research on textile and garment companies listed on the Indonesia Stock Exchange in 2011-2015 and (Asfali, 2019) who conducted research on chemical manufacturing companies on the Indonesia Stock Exchange showed that liquidity, profitability, leverage and growth had Lisiantara and Febrina (2018) also conducted a similar study entitled "Liquidity, Leverage, Operating Capacity, Profitability, Sales Growth as Predictors of Financial Distress" in manufacturing companies listed on the Indonesia Stock Exchange in 2013-2016. His research shows that the liquidity ratio and growth ratio have no effect on financial distress, while the profitability ratio and leverage ratio have an effect on financial distress. While in Simanjuntak et al. (2017) who conducted research on transportation companies listed on the Indonesia Stock Exchange for the period 2011-2015 showed the results that liquidity, profitability and growth had no effect on financial distress for leverage influenced financial distress.

2. Theoretical Framework and Hypothesis

Financial Distress

Financial distress in the company occurs before the company is said to have gone bankrupt. Bankruptcy itself is generally defined as a condition or situation where the company has failed or is no longer able to fulfill its debtor obligations due to a shortage or not having sufficient funds to continue the company in order to achieve its goal of making a profit, because with the profits earned by the company, it can be used to pay off loans. finance the company's operations and obligations that must be met. The situation where the company is no longer able to generate income because it cannot pay the company's financial obligations is called financial distress (Deb et al., 2020). According to Theodorus and Artini (2018), financial distress is a condition in which

the company is unable to fulfill the company's bonds. According to Khaliq et al., (2014) when a company cannot face difficulties in paying off its financial obligations to creditors, the company is declared to be in financial distress, in his journal saying that there are characteristics of companies that will experience financial distress opportunities, namely companies that have high fixed costs. and illiquid company assets. There is also an opinion according to Anggarini (2010) regarding the symptoms of a company in financial distress such as the company being unable to pay its debts to creditors or unable to pay off the company's debts on time and the company has a larger amount of liabilities than the company's assets.

The Altman Z-score method is a method for predicting bankruptcy in the form of an equation and a combination of financial ratios that can predict bankruptcy in a company, the ratio used by the Altman Z-score method is a ratio that can detect the company's financial health and is related to profitability, activity, and company liquidity. The Altman Z-score method was first used in research conducted by Edward I Altman in 1968 as a result of his research. Altman conducted research on 22 financial ratios, thus getting 5 ratios that can be included in the equation to measure companies that have the potential to go bankrupt or not. So Altman created several different methods according to the company and conditions, the Altman Z-score method can be used for large and small companies and manufacturing and non-manufacturing companies.

In this study, using the Altman Z-score method because according to Ayuningtiyas and Suryono, (2019) the Altman Z-score method is the easiest method because this model uses five financial ratios in financial statements which will result in measuring the company's financial health using equity.

According to Resfitasari et al., (2021) the measurement of financial distress predictions in companies using profitability, liquidity, and solvency ratios is most relevant to several financial ratios in predicting company financial distress, Altman Z-score uses a predetermined score multiplied by financial ratios the results of which will show the company's level of financial distress. The results of the Altman Z-Score can inform the company's financial condition at that time and will predict whether the company is experiencing financial distress, but the existing predictions will change according to the company's performance and management.

The first formula from Altman's research in 1968 was the formula used to predict bankruptcy in manufacturing companies that went public. Because Altman conducted research on various manufacturing companies in the United States that sell their shares on the stock exchange. The first model Altman Z-score method is as follows:

$$Z = 1,2\, X_1 + 1{,}4 X_2 + 3{,}3 X_3 + 0{,}6 X_4 + 1{,}0 X_5$$

Note:

X_1 = Working Capital /Total Assets

X_2 = Retained Earnings/Total Assets

X_3 = Earnings Before Interest and Taxes/Total Assets

X_4 = Market Value of Equity/Book Value of Long-term Debt

X_5 = Sales/Total Assets

According to the first Altman Z-Score model, companies that have a total score of less than 1.81 are considered as companies that have a high bankruptcy prediction, companies that have a total score between 1.18 - 2.99 companies are considered to have uncertain risk. or likened to a gray area, and for companies that have a total score of more than 2.99, the company has a low risk of predicting bankruptcy.

Liquidity and Financial Distress

Liquidity as measured by the Current Ratio is used to measure the company's ability to meet short-term obligations that are due with current assets owned by the company. If the results of the calculation of the current ratio are low, the greater the company cannot fulfill short-term obligations that are due (Rahayu & Sopian, 2016), the greater the possibility for the company to experience financial distress.

This is supported by research conducted by research (Dwiantari et al., 2021) with the research title "The Effect of Liquidity, Leverage, and Profitability on Financial Distress (Case Study of Property and Real Estate Companies on the IDX 2017-2019)" The results of the study show that liquidity has a negative effect on financial distress. Similar research was also conducted by (Widhiari & Aryani Merkusiwati, 2015) with the research title "The Influence of Liquidity Ratio, Leverage, Operating Capacity, and Sales Growth on Financial Distress" conducted research on 152 manufacturing companies listed on the IDX for the period 2010-2013, the result of Research shows that liquidity has a negative effect on financial distress. This shows that the higher the liquidity result, the smaller the potential for the company to experience financial distress.

H_1: Liquidity has a negative effect on financial distress.

Profitability and Financial Distress

The net profit margin ratio is used to measure profitability, namely by assessing the company's operating efficiency and pricing with other competing companies, if the score is high, the company can generate high profits at a certain level of sales (Andriansyah, 2018). The lower the score, the more likely the company will experience financial distress.

Previous research conducted by Curry and Banjarnahor (2018) with the research title "Financial Distress in Go Public Property Sector Companies in Indonesia" by taking samples in 2014 - 2016, in his research showed the results that profitability had a negative effect on financial distress. This is in line with research conducted by (Dewi et al. 2019) by taking a sample of manufacturing companies listed on the Indonesia Stock Exchange in 2015, with the results of profitability research having a negative influence on financial distress. This shows that the greater the value of profitability means the smaller the chance the company will experience financial distress.

H_2: Profitability has a negative effect on financial distress.

Leverage and Financial Distress.

Debt to total assets or also called debt ratio is used to calculate leverage. This ratio is used to measure the amount of all liabilities or debts owned by the company, both short-term and long-term which will be divided by the total assets owned by the company, both current assets and

fixed assets. The greater the total liabilities of the company, the greater the company will experience financial distress because the company cannot fulfill its total liabilities with the total assets of the company.

In a study conducted (Fitri and Syamwil, 2020) entitled "The Effect of Liquidity, Activity, Profitability and Leverage on Financial Distress (Case Study on Manufacturing Companies Listed on the Indonesia Stock Exchange Period 2014-2018)" which took a sample of 64 manufacturing companies showed that leverage has a significant positive effect on financial distress. This was also carried out by Putri and Arifin (2021) with the title "The Effect of Liquidity, Leverage, and Profitability on Financial Distress (Case Study of Property and Real Estate Companies on the IDX 2017-2019)" by conducting a sample of 53 companies with shows the results that leverage has a positive effect on financial distress. Similar research was also conducted by Asfali (2019) and Putri and Arifin (2021) which showed that leverage had a positive effect on financial distress. This shows that the greater the total liability, the lower the liquidity result which causes the company to experience financial distress.

H_3: Leverage has a positive effect on financial distress.

Growth and Financial Distress.

Sales growth is used to measure growth which can measure product revenue generated from sales by the company which can be used to measure growth rates. The greater the number of sales for the current year compared to the previous year, the smaller the company will experience financial distress.

The research was conducted (Pranita and Kristanti, 2020) with the research title "Financial Distress Analysis Using Survival Analysis" by taking samples of 63 basic and chemical industrial companies and the consumer goods industry sector listed on the Indonesia Stock Exchange for the 2009-2018 period with the results of the research. shows that sales growth has a negative effect on financial distress. Lubis (2019) also conducted a similar study on manufacturing companies listed on the IDX for the 2013-2017 period by showing the results of research that sales growth has a negative effect on financial distress. This shows that the greater the result of sales growth, the less likely the company will experience financial distress.

H_4: Growth has a negative effect on financial distress.

2. Method

Population and Sample

The population of this study are all food and beverage companies listed on the Indonesia Stock Exchange in the period 2018 - 2020 which were taken using a purposive sampling technique obtained on the IDX website www.idx.co.id. Purposive sampling is a sampling technique in accordance with the criteria set by the researcher. From a population of 32 companies, which did not meet the criteria of 11 companies, the sample taken was 21 companies.

Variables and Operational Definitions

The dependent variable in this study is financial distress (Z). Financial distress is the state of the company when it experiences a financial decline before the bankruptcy occurs, so that the

company cannot pay its obligations in accordance with the predetermined time limit. To predict financial distress in companies, this study uses the Altman Z-Score method which uses financial ratios obtained from financial statements. In this study using the Altman Z-Score model go public with the formula:

Z = 0.717X1 + 0.847X2 + 3.108X3 + 0.42X4 + 0.988X5

Note:

Z = financial distress

X1 = working capital / total asset

X2 = retained earnings / total asset

X3 = earnings before interest and taxes/total asset

X4 = market value of equity / book value of total debt

X5 = sales / total assets

With score classification:

o   Z Score > 1.23 is considered bankrupt

o   1.23 - 2.99 is considered gray area

o   Z Score < 2.99 is considered not bankrupt

An independent variable or independent variable is a variable whose value can affect the value of other variables. This variable the researcher examines both theoretically and logically its influence on the dependent variable Sutrisno (2017).

Liquidity

On liquidity will be calculated by the number of current assets divided by the number of current liabilities with the formula:

$$CR = \frac{\text{Aktiva Lancar}}{\text{Hutang Lancar}} \; x \; 100\%$$

Profitability

In profitability using a proxy net profit margin ratio, it is calculated by the net income of the company divided by the company's total sales, with the formula:

$$NPM = \frac{\text{Net Income}}{\text{Penjualan}} \; x \; 100\%$$

Leverage

Leverage is calculated by a debt ratio proxy measuring the amount of all liabilities or debts owned by the company, both short-term and long-term which will be divided by the total assets owned by the company, both current assets and fixed assets, with the formula:

$$DTA = \frac{\text{Total Hutang}}{\text{Total Aset}} \; x \; 100\%$$

Growth

In growth, it is calculated using the sales growth proxy by dividing the reduction in the number of sales in n years minus sales in n-1 years by sales in n-1 years, with the formula:

$$GS = \frac{Sales(t) - Sales(t-1)}{Sales(t-1)}$$

Data Analysis Method

In this study using multiple linear regression analysis because it has variables that affect more than one with the formula:

FD = α + β1CR+ β2NPM+ β3DTA+ β4GS+ ε

Note:

FD   = Financial Distress

α   = Konstanta.

β   = Koefisien regresi.

CR   = Likuiditas

NPM   = Profitabilitas

DTA   =Leverage

GS   = Growth

ε   = error

3. Results

Descriptive Statistics

Descriptive statistical test aims to describe the variables contained in the study and provide an overview of the variables to be studied, in the form of processing the average (mean), standard deviation (standard deviation), maximum, and minimum of each research variable. namely liquidity, profitability, leverage, growth and financial distress.

Table 1: Descriptive Statitics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity (CR)	84	0,15	29,42	3,0594	4,05389
Profitability (NPM)	84	-0,50	,94	,0767	,19871
Leverage (DTA)	84	0,03	2,90	,5240	,47521
Growth (GS)	84	-0,90	11,24	,3072	1,70881
Financial Distress	84	-0,23	90,48	5,8150	9,91688
Valid N	84				

Based on the results of the descriptive statistical test analysis in table 1. In the sample studied, namely food and beverage companies listed on the Indonesia Stock Exchange in the 2017-2020

period with the number of companies studied as many as 21 companies, conclusions can be drawn from each variable:

Liquidity proxied by the current ratio has an average value or mean of 3.06. The maximum value in liquidity is held by PT Delta Djakarta Tbk. in 2018 which was 29.42. The minimum value in liquidity is held by PT FKS Food Sejahtera Tbk. in 2018 which is 0.15. With a standard deviation of 4.05. owned by liquidity

Profitability proxied by net profit margin has an average value or mean of 0.77. The maximum value in liquidity is held by PT FKS Food Sejahtera Tbk. in 2020, which is 0.94. The minimum value in profitability is held by PT Bumi Teknokultura Unggul Tbk. in 2020 which is -0.50. With the standard deviation value of the profitability of 0.199.

Leverage proxied by debt ratio to total assets has an average value or mean of 0.53. The maximum value in leverage is held by PT FKS Food Sejahtera Tbk. in 2018 which was 2.9. The minimum value in leverage is held by PT Siantar TopTbk. in 2019 which is 0.30. With a standard deviation of 0.48 owned leverage.

Growth which is proxied by sales growth has an average value or mean of 0.31. The maximum value in growth is held by PT Siantar Top Tbk. in 2019 which was 11.24. The minimum value in growth is held by PT Siantar Top Tbk. in 2019 which is -0.90. With the standard deviation value of growth of 1.71.

Financial distress using the Altman Z-Score method has an average value or mean of 5.81. The maximum value in financial distress is held by PT Prima Cakrawala Abadi Tbk. in 2018 which was 90.48. The minimum value in financial distress is held by PT FKS Food Sejahtera Tbk. in 2017 which is -0.23. With the standard deviation value of financial distress is 9.91.

Hypothesis test results

Based on the calculation of multiple linear regression using the SPSS 25.0 program listed in table 4.16. the following conclusions can be drawn:

Table 2: Hypothesis test Results

Variable	*B*	t hitung	Sig. t
(Constant)	1,034		
CR	,345	3,437	,001
NPM	3,298	5,964	,000
DTA	-,463	-1,051	,299
GS	-,022	-,171	,865
Adj. R square	0,523		

4. Discussion

Effect of Liquidity on Financial Distress.

The results of the hypothesis test are known to have a significance value of 0.001 which is smaller than the significance value of the decision-making criteria of 0.05, so it can be concluded that liquidity has an influence on financial distress. The higher the FD value, the further away

from financial distress, the higher the liquidity (CR), the higher the FD, so the hypothesis is proven.

According to Andriansyah (2018), liquidity is the ratio used to measure the company's ability to meet its short-term obligations, by calculating the current ratio which can show the company's ability to pay short-term obligations that are known to be due with current assets owned by the company.

Based on the results of the hypothesis of the effect of liquidity on financial distress, it shows that if the company begins to have difficulty meeting debt bills, bank loans and other obligations this will increase the company's current debt, so that over time the company's current debt will be more than current assets, this indicates that the occurrence of problems within the company that will result in financial distress.

The results of this study are in line with research conducted (Putri and Arifin, 2021) and (Asfali, 2019) whose results state that the liquidity variable has a significant positive effect on financial distress. However, the results of this study are not in line with research conducted by (Dwiantari et al., 2021) and (Widhiari and Aryani Merkusiwati, 2015) which state that liquidity has a negative effect on financial distress.

The Effect of Profitability on Financial Distress.

The results of the hypothesis test are known to have a significance value of 0.000 which is smaller than the significance value of the decision-making criteria of 0.05, so it can be concluded that profitability has an influence on financial distress. The higher the NPM, the higher the FD, which indicates the higher the profitability, the further away from financial distress, thus the hypothesis is proven

If the company has a low profitability value, this shows the company, getting a low net profit, if the profitability value is high then the company has a high net profit. The higher the value of the net profit margin, the more the company will get a net profit, this can attract and increase investor confidence to invest in the company because of the company's good and productive performance (Susi, 2018). If the value of this ratio is low, the greater the company will experience financial distress predictions, because the lower the profit will worsen the company's financial condition.

The results of this study are in line with research conducted by journals (Liana and Sutrisno, 2014) and (Permatasari and Nugroho, 2021) whose results state that the profitability variable has a significant positive effect on financial distress. However, the results of this study are not in line with research conducted by (Curry and Banjarnahor, 2018) and (Dewi et al., 2019) which state that profitability has a negative effect on financial distress.

The Effect of Leverage on Financial Distress.

The results of the hypothesis test are known to have a significance value of 0.299 which is greater than the significance value of the decision-making criteria of 0.05, so it can be concluded that leverage has no effect on financial distress. According to Widhiari and Aryani Merkusiwati (2015) leverage is a ratio that can show the company's ability to meet current obligations and long-term obligations of the company. The higher the leverage value of a company, the riskier

the company experiences financial distress because the higher the leverage value indicates that the company cannot cover its obligations.

The results of this study are not in line with the existing theory, namely, the higher the leverage value of a company, it indicates the company is experiencing financial distress. According to (Kimathi and Mungai, 2018) and (Julius, 2017) this can happen because the company has large assets and the company can generate large annual profits when the company has a lot of debt to finance the company's operations, so the company can cover the total debt.The research conducted (Ayuningtiyas and Suryono, 2019) revealed that large companies will diversify their business in order to meet the company's leverage value significantly. In this study, there is one company, namely PT Delta Djakarta Tbk. which has a high leverage value above the average but does not experience financial distress.

In this study leverage has no effect on financial distress, according to the results of research conducted by Liana and Sutrisno (2014) leverage has no effect on financial distress due to the possibility of the company taking a loan to cover the company's obligations that are due or the company has large assets so that it can cover liability companies.

The results of this study are in line with research conducted (Liana and Sutrisno, 2014) and (Widhiari and Aryani Merkusiwati, 2015) whose results state that the leverage variable has no effect on financial distress. However, the results of this study are not in line with research conducted by (Curry and Banjarnahor, 2018) and (Dewi et al., 2019) which state that leverage has a positive effect on financial distress.

The Effect of Growth on Financial Distress.

The results of the hypothesis test are known to have a significance value of 0.865, which is greater than the significance value of the decision-making criteria of 0.05, so it can be concluded that growth has no effect on financial distress. This shows that the growth variable cannot predict the occurrence of financial distress. If the company's sales are high, the company will get high income too, so it can increase the profits earned and the possibility of the company experiencing financial distress will be smaller, and vice versa. This study shows that sales growth has no effect on financial distress. This happens because the company has sufficient income or still has profits to cover the company's expenses even though the company has decreased sales growth, so the company does not experience financial distress (Dianova and Nahumury, 2019).

According to Sulihing et al. (2021) the decline in sales growth in the company will not directly affect whether the company will experience financial distress because a decrease in sales growth will only affect the decrease in profits earned by the company and will not cause financial distress to the company. Companies can take loans to cover the company's expenses if sales are unstable or sales decline (Permatasari and Nugroho, 2021), this can also be overcome if sales in the previous year were stable. So that the greater the profit generated by the company, the less likely it is that the company will experience financial distress.

The results of this study are in line with the research conducted (Rahman and Artinah, 2021) and (Permatasari and Nugroho, 2021) whose results state that the growth variable has no effect on financial distress. However, the results of this study are not in line with research conducted by

(Pranita and Kristanti, 2020) and (Lubis, 2019) which state that growth has a negative effect on financial distress.

5. Conclusions and suggestions

Based on the results of the study, it was concluded that the ones that had an effect on financial distress were liquidity and profitability. These results indicate that companies that have high liquidity are less likely to experience financial distress. Likewise, companies that have high profitability also have a small bankruptcy risk. Meanwhile, leverage and growth did not affect the risk of financial distress.

It is hoped that the results of this study can be used by companies engaged in the food and beverage sector to pay attention to factors that affect financial distress, namely by increasing profitability and liquidity, so that companies avoid the risk of bankruptcy. In addition, it is hoped that the results of this study can be used by academics to increase scientific knowledge, especially in the matter of financial distress.

This study still has many shortcomings because to predict financial distress there are many variables that affect both internal and external variables. This study only uses internal factors that only consider four variables. Therefore, further research can be developed by adding variables, both internal and external variables.

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