USING ALTMAN Z-SCORE MODEL AND CURRENT STATUS OF FINANCIAL RATIO TO ASSES OF CONSUMER GOODS COMPANY LISTED IN INDONESIA STOCK EXCHANGE (IDX)

Yoppy Palupi Purbaningsih
Faculty of Economic ,STIE EKUITAS, Bandung, Indonesia

Corresponding email : ypalupi@gmail.com

Abstract

This study aims to assess the financial condition of the companies listed on the Indonesia Stock Exchange (IDX) using a model of financial distress prediction Edward Altman Z-score and the Current Ratio. The population in this study consisted of 33 Consumer Goods Company at the period 2009-2010 in Indonesia Stock Exchange (IDX). The data used is secondary data obtained from the company's financial statements. Testing hypotheses using paired sample t test..

Results of this study found that There is a significant difference between the use of Altman Z-score and Current Ratio method in determining the financial condition of Consumer Goods Companies listed in Indonesia Stock Exchange (IDX). In addition there is the Financial Distress in Consumer Goods Company listed on the Indonesia Stock Exchange (IDX). From the results of this study can be concluded that Altman Z-Score model and the current ratio is a useful tool for investors to predict the company's financial failure.

Keywords: Altman Z-Score, Current Ratio, Financial Distress

1. INTRODUCTION

Consumer goods company in Indonesia according to the Boston Consulting Group estimated to have increased in line with the growth of the top layer of the middle class in Indonesia until 2020 to reach 141 million as the trend of consumption is more directed at the needs of the household besides the Indonesian economy is relatively stable among the wave sustains creation the middle layer, both in number and spending power. Therefore this case also resulted in increased demand for financial analysis.

Financial performance standards required to monitor and assist in the decision making process in assessing and measuring the performance of the market as well as the reference company's competitiveness. Though the estimated consumer goods companies will increasingly grow, but need to be well known consumer goods companies the possibility of business failure, no one company can avoid bankruptcy. This is due to the high competition among consumer goods companies. Additionally the consumers is easy to move from one product to another product because consumers prefer cheap products with good quality. Business failure is usually caused by several things, among others, failure to understand the market and the customer, choose a business that is not profitable, inadequate funding and a failure to anticipate or react separately to technology, competency or other changes in the market, other than that due to not understanding the financial condition. business failure is a situation in which a corporation or other business stopped operating because they cannot generate enough revenue to cover the load as an example, if a company is unable to pay debts may signify bankruptcy and cease operations.

The financial report is a very important tool to obtain information relating to the financial position and the results achieved by the company. Using the financial statements as a basis for the analysis can be carried out analysis Financial distress prediction of bankruptcy (financial distress) is the beginning of the company's bankruptcy, a very severe liquidity difficulties the company was not able to make a well-run operation. Bankruptcy is usually defined by the failure of the company in running the company to generate profits and failure to pay obligations. Also often called liquidation bankruptcy or closure of companies or insolvabilitas.

In 1968, Edward I. Altman gives a formula that predicts the functioning of financial statements and represents the Z score is a number that can be a reference to determine whether a company has the potential to bankrupt or not. This study uses a model of financial distress prediction Edward I.Altman. I.Altman Edward was the first to use multivariate analysis to analyze the ratio of a diverse group of companies that go bankrupt and not, who used to see the effect of different combinations of ratios in predicting bankruptcy.

The liquidity ratio is the most excellent and easy to use to evaluate the credit rating of the company and identify the company's liquidity. Liquidity ratios are used to assess the status of the company's credit facility reflects the company's ability to meet short-term obligations. The current ratio is an indicator of a company's financial liquidity measure whether the company has enough resources sufficient to pay the debt over the next 12 months. This ratio compares a company's current assets by current liabilities.

Every company in running its operations can not be separated from its main purpose is to obtain the maximum profit and survival of firms (going concern). The company's survival is influenced by many things such as the liquidity of the company itself. Liquidity (liquidity) refers to the ability of the company to meet its short term obligations. The importance of liquidity can be seen by considering the impact that comes from the inability of the company to meet its short term obligations. The lack of liquidity has discouraged companies to take advantage of opportunities to get discounts or benefits. In this study, the threshold of the Altman Z-score model and the current ratio for the company's failure to distinguish between financial and financial failure.

Based on the above, the authors are interested in writing "**Using Altman Z-Score Model and Current Ratio in assessing the financial status of the consumer goods companies listed in Indonesia Stock Exchange (IDX)"**

Based on the background that has been described, the formulation of the problem in this study is: is there a significant difference between the use of Altman Z score and the current ratio in determining the financial condition of the company (company failure and non-failure company) and whether there is financial distress in the Consumer Goods Company listed Indonesian Stock Exchange (BEI).

2. THE LITERATURE

2.1 Financial Statements

The financial report is a financial information of an entity in an accounting period that can be used to describe the performance of the company. Under Statement of Financial Accounting Standards (SFAS) no. 1 (Revised 2009) the purpose of the preparation of the financial statements is "to provide information about the financial position, financial performance, and cash flows for the benefit of the user entity's financial statements.

2.2 Financial Distress

Financial distress (financial difficulties) is the beginning of the company's bankruptcy, a very severe liquidity difficulties the company was not able to make a well-run operation (Sukana, 2008.121). Bankruptcy is usually defined by the failure of the company in running the company to generate profits and failure to pay obligations. it also often called liquidation bankruptcy or closure of companies or insolvabilitas. Insolvency (bankruptcy) is usually interpreted as a failure of the company to run the company's operations to generate profit .Bankcruptcy as a failure that occurs in a company is defined in some sense, namely:

1. Failure of Economics (Economic Distressed) means that the company loses money or earnings are not able to cover its own costs, this means that the level of earnings is less than the cost of capital or the present value of cash flows is less than the obligation. Failure occurs when the actual cash flow of the company is far below the expected cash flows.
2. Financial failure (Financial Distressed) has meaning in the sense of lack of funding, both in terms of cash or funds in the sense of working capital. Most asset liability management was instrumental in setting to keep from being hit financially distressed. Financial failure can also be interpreted as distinguishing between insolvency basic cash flow and stock basis. There are several definitions of financial distress according types, namely economic failure, business failure, technical insolvency, insolvency in bankruptcy, and bankruptcy legal.

Economic failure or economic failure is a condition in which the company's revenues can not cover the total cost, including the cost of capital of the company. Businesses can continue to operate along the creditors are willing to provide capital and its owners are willing to accept the rate of return (rate of return) in the bottom of the market. Although there is no injection of new capital assets when parents have to be replaced, the company can also be economically viable.

Business failure or failure of a business is defined as a business that ceased operations with losses to creditors. A business unit can not meet its obligations to creditors.

A company said in a state of technical insolvency if it can not meet current obligations when due. Technical insolvency showed a temporary liquidity shortage if given time, the company may be able to pay its debts and may persist. On the other hand, if the technical insolvency is the early symptoms of economic failure, this may be the first stop toward a financial catastrophe (financial disaster).

A company is said in an insolvent in bankruptcy if the book value of debt exceeds the market value of assets. This condition is more serious than the technical insolvency because generally this is a sign of economic failure, even leading to the liquidation of the business. In an insolvent company in bankruptcy does not have to be involved in the bankruptcy law demands.

Legal bankruptcy is defined as a company said to be insolvent if it has filed legal claims of those who feel aggrieved official by law. If decision of the court has been issued it will be proceed with the liquidation of the company.

2.2 Prediction of Bankruptcy

Z-Score bankruptcy analysis, is a tool used to predict the rate of bankruptcy of a company by calculating the value of a ratio and then included in a discriminant equation, then based on the analysis of the reported cut-off point Altman:

Formula Z Score for companies "go public".

$Z = (1.2 * X1) + (1.4 * x2) + (3.3 * X3) + (0.6 * X4) + (1.0 * X5)$

where:

Z = Overall Index
X1 = Working Capital To Total Assets
X2 = Retained Earnings To Total Assets
X3 = Earnings Before Interest & Taxes To Total Assets
X4 = Market Value of Equity to Book Value of Debt
X5 = Sales To Total Assets

Table 2.1 Threshold Calculation Altman Z-Score

Bankcruptcy Point	Market Value	Book Value
The Company with High risk	if value Z<=1.80	if value Z<=1.20
The Company still has a risk bankcruptcy	if value 1.81<Z<2.99	if value 1.20<Z<2.90
The Company Safe from bankcruptcy	If Value Z>=2.99	If Value Z>=2.90

2.3 Liquidity

2.3.1 Definition of Liquidity

Liquidity refers to the availability of resources to meet the company's short-term cash needs (White, Sondhi and Fried) (2008: 112). Liquidity is a company's ability to meet its short term obligations. The current ratio is an indicator of a company's financial liquidity measure whether the company has enough resources sufficient to pay the debt over the next 12 months. This ratio compares a company's current assets by current liabilities.

Table 2.2 Threshold Calculation Altman Z-Score and Current Ratio in determining the Company and Non Failure Failure Company

Financial Condition	Altman Z-Score Value	Current Ratio Value
Failure Company	<1,8	<1,1
Non Failure Company	>2,99	=/>1,1

3. METHODOLOGY RESEARCH

This study attempts to use Altman's model and current ratio to assess the financial status of companies listed in the Indonesian Stock Exchange. The data of this research were collected from the listed companies financial reports available at Indonesia Stock Exchange library. The thirty three companies were selected on a stratified (stratified by company category) random basis. The stratified random sample method is to give each company an opportunity to appear in this study. By adopting this method, the numbers of particular companies were proportionately selected to represent the respective categories of companies,). The financial data of these companies is over the period from 2009 to 2010 . Altman Z-score and Current Ratio were computed for these identified companies to test the hypotheses formulated.

3.1 Normality Test

One of the assumptions of regression models are residuals have a normal distribution. What are the consequences if the model does not have a normal distribution of residuals t test for the significance of the independent variable on the dependent variable can not be applied if the residuals do not have a normal distribution. The method can be used (1) Kolmogorov-Smirnov test;

3.2 T double-sided test (paired sample t test)

Two-sided t test (paired sample t test) mean that two different test or unpaired data is a useful sample to test for differences in initial conditions (before) and after treatment. This is to be compared in this hypothesis is using Current Ratio and the Altman Z score to assess the financial condition of the company's consumer goods (2009-2010) listed on the Indonesia Stock Exchange (IDX).

Ho = There is a significant difference between the use of the current ratio and the Altman Z-score in determining the financial condition of the company.

Ha = There is no significant difference between the use of the current ratio and the Altman Z-score in determining the financial condition of the company.

4. RESULT

4.1 Analysis of descriptive

Consumer Goods companies listed in Indonesia Stock Exchange (IDX) totaling 33 companies. Of the 33 Consumer Goods Company is divided into 5 (five) sub-sectors, namely the 9 sectors Pharmaceutical, Cosmetic Company 4 sectors, 14 sectors Food and Beverage Company, 3 Sector Companies and Home Appliances sectors Cigarette Company 3.

Table 4.1 Consumer Goods Company Listed on the Indonesia Stock Exchange

Consumer Goods Company Listed on the Indonesia Stock Exchange	
Clasification of The Company	Number Of Company
PHARMACEUTICAL	9
COSMETIC	4
FOOD AND BEVERAGES	14
HOME APPLIANCES	3
CIGARETTE	3
TOTAL	33

2 Test Normality and paired sample t test

Table 4.2 : Normality Test One-Sample Kolmogorov-Smirnov Test

		Altman Z Score	Current Ratio
N		33	33
Normal Parameters[a,b]	Mean	3.2621	5.3331
	Std. Deviation	2.05837	14.33139
Most Extreme Differences	Absolute	.077	.382
	Positive	.053	.382
	Negative	-.077	-.376
Kolmogorov-Smirnov Z		.442	2.195
Asymp. Sig. (2-tailed)		.990	.000

a. Test distribution is Normal.

From the table above, it can be seen that the value of the KS significance Altman Z score of 0.990, where the value is greater than 0.05, so it can be concluded that the Altman Z score variables were normally distributed. While the significance of KS Current Ratio for 0.000, where the value is smaller than 0.05, so it can be concluded that the Current Ratio variables not normally distributed. Therefore, no current ratio normally distributed, then the transformation will be done Ln. Transformation results then tested again for normality, as follows

Table 4.3 : Normality test results of the transformation of Current Ratio One-Sample Kolmogorov-Smirnov Test

		Altman Z Score	transform Current Ratio
N		33	33
Normal Parameters[a,b]	Mean	3.2621	.9605
	Std. Deviation	2.05837	.87417
Most Extreme Differences	Absolute	.077	.172
	Positive	.053	.172
	Negative	-.077	-.104
Kolmogorov-Smirnov Z		.442	.990
Asymp. Sig. (2-tailed)		.990	.280

a. Test distribution is Normal.

Pairwise sample t-test

Paired t test (paired t-test) typically examine the differences between the two observations. Paired t test was performed on normal subjects tested in the situation before and after the process, or in pairs, or a similar subject. The formula used to find the value of t in the paired t-test are: the hypothesis is:

t = (X-Y¯) √ ((n (n-1)) / (Σ_ (i = 1) ^ n ▒ 〖((x_i)-Y 〖〗 _i)〗 ^ 2))

Paired t-test using n-1 degrees of freedom, where n is the number of samples.

Decision-making process

Hypotheses

Ho = There There are significant differences between the use of the Altman Z-score and the current ratio in determining the financial condition of the company.

H1 = There is a significant difference between the use and the Altman Z-score and the current ratio in determining the financial condition of the company.

Significant level (α) of 5%

Testing criteria:

If the p-value <α, then H0 is rejected.

If the p-value> α, then H0 is accepted.

Calculation results:

Variabel	N	Mean	t	Significant Level	Kesimpulan
Altman Z Score & Current Ratio	33	2.302	6.619	0.113	Tolak Ho

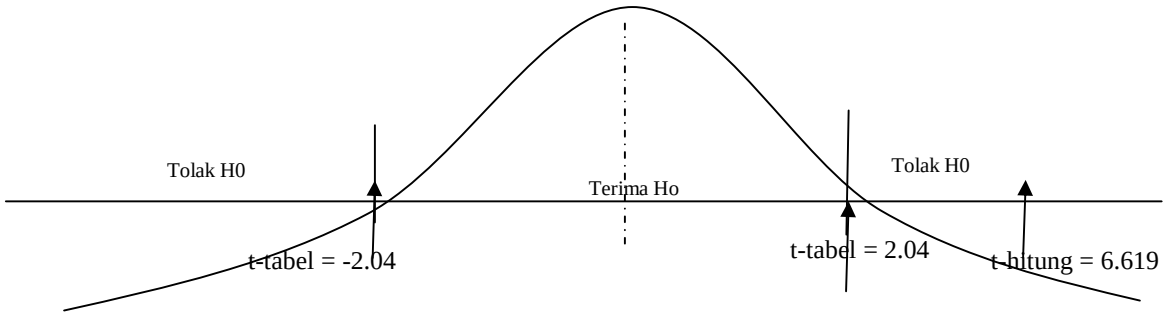

Figure 4.1 Regional curve Hypothesis Testing

From the calculation above, it can be seen that the t-value calculated for 6619, is in the region reject H0. Significance value obtained is smaller than the 0:00 p-value of 5%, which is said also reject H0. Thus, it can be concluded that the use of Altman Z-Score and current ratio are significant differences in determining the financial condition of the consumer goods companies listed in Indonesia Stock Exchange (IDX).

4. 3 Analysis Calculation Altman Z-Score and Current Ratio

Altman Z score calculation is based on five (5) independent variables, each of which represent ratios and financial ratios and recognized by every level of the dependent variable (Z). The current liquidity ratio is the most basic test. This ratio indicates the ability of the company in the short term, if the current ratio is greater than or equal to 1, this indicates that the current assets to meet short-term obligations, and if the current ratio of less than 1 means the company is experiencing liquidity problems. Altman Z-score model is used to determine whether there is financial distress in the consumer goods companies listed in Indonesia Stock Exchange (IDX). The data used is the 2nd annual 2009 and 2010. After the calculation then the separation between financial failure and companies that do not experience failure or non-financial firm failure.

Table 4.4 : Financial Condition of the Company is based on the calculation of Altman Z-Score and Current Ratio

	Number Of Consumer Goods Company			
Measurement	**Tahun 2009**		**Tahun 2010**	
	Failure	**Non Failure**	**Failure**	**Non Failure**
Altman Z-Score	7	26	8	25
Currrent Ratio	3	30	3	30

From the above table it can be seen there are several consumer goods companies are experiencing Financial and Non-Financial Failure. In the Altman Z-score calculation for the year 2009, there were 7 consumer goods companies that experienced Financial Failure 1 which is derived from the consumer goods sector companies namely PT Pharmacy Schrering-Plough Indonesia Tbk while 6 companies from the consumer goods sub-sector Food and Beverage, PT Akasha Wira International , Tbk, PT Tiga Pilar Sejahtera Food, Tbk, PT Davomas Abadi Tbk, PT Cahaya Kalbar Tbk, PT Prashida Aneka Niaga Tbk, and PT Sekar Laut Tbk. Whereas in 2010 there is one company that is in addition to the above sub-sectors of Pharmacy, PT Indofarma, Tbk.

In the Altman Z score calculation that non-financial companies or companies whose failure is not a business failure in 2009 there were 26 of the 33 consumer goods companies listed in Indonesia Stock Exchange and there are 7 consumer goods companies experiencing financial failure or financial failure, from

26 companies consumer goods that are not experiencing financial or non financial failure of which comes from 8 consumer goods sub-sector enterprises Pharmacy, 4 sub-sector consumer goods company Cosmetics, 8 from consumer goods companies Food and Beverages sub-sector, three of the Company's consumer goods sub-sector Appliances Stairs and 3 of the company's consumer goods sub-sectors smoking. In 2010 there were 25 companies from 33 consumer goods companies listed in Indonesia Stock Exchange is not a failure of financial or non-financial failure, while the remaining 8 consumer goods companies are experiencing financial failure or financial failure most business failures are of the food sector and Beverages. Of the 25 companies that are not financial failure, among others, 6 of the consumer goods sector, the pharmaceutical companies, four of the company's consumer goods sector, Cosmetics, 7 of the companies of the consumer goods sector, Food and Beverage, 3 of the Company's consumer goods sub-sector Houseware and 3 of consumer goods sub-sector enterprises smoking.

On the Calculation of Current Ratio, seen in 2009 and 2010 there were 30 consumer goods companies who do not have financial or non financial failure of failure, while there is a 3 consumer goods company experiencing financial failure or financial failure, among others, PT Schrering-Plough Indonesia Tbk, PT. Unilever Indonesia Tbk and PT. Multi Bintang Indonesia Tbk. In the Current Ratio threshold for companies experiencing financial failure or financial failure that is> 1.1,

5. CONCLUSION

This study found that there are financial distressed companies listed on the Indonesia Stock Exchange. Study concluded that Edward Altman model and current ratio are useful tools for investor to predict financial failure of companies.

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