Saburai-IJSSD :**INTERNATIONAL JOURNAL OF SOCIAL SCIENCES AND DEVELOPMENT**
Volume 1, No 2 (2017)
ISSN: 2579-3640 (ONLINE)
DOI: http://dx.doi.org/10.24967/saburai%20ijssd.v1i2.251
Page:155-162

THE EFFECT OF FINANCIAL PERFORMANCE ON FINANCIAL DISTRESS CONDITION AS EARLY WARNING SYSTEM AT PT.CENTRA PROTENIA PRIMA.Tbk

Yulistina[1], Sekar Sari Meita[2]
yulistina@umitra.ac.id[1], meitasekarsari@umitra.ac.id[2]

ABSTRACT

Financial distress is the stage of financial condition that occurs before bankruptcy or liquidation).Bankruptcy is defined as a failure in running operations to achieve its objectives.The company is considered bankrupt if the rate of return earned by the company is less than the total cost that must be incurred in the long run, therefore, it is necessary to evaluate the performance of the company in managing its capital which is interpreted in thebusiness bankruptcy analysis (bankruptcy prediction), done by predicting the bankruptcy of companies using early warning model (early warning system) This research was conducted at PT.Centra Protenia Prima.Tbk with the aim to know the effect of operating cash flow, likuditas, leverage, profit margin to the condition of financial distress (bankruptcy) by using model Almant Z Score.The results of this study is concluded that operating cash flow has no effect on the condition of financial ditress (bankruptcy) while likuditas, leverage, profit margin effect on financial condition ditress (bankruptcy)

Keywords: Cash Flow Operation, Liquidity, Leverage, Profit Margin and Financial Distress

INTRODUCTION

The increasingly competitive condition of the economy requires every company to work harder in facing the current condition, both in managing internal corporate management and external company. Companies that are not able to manage the company professionally and unable to compete with other companies will have financial difficulties will lead to bankruptcy.

According Rudianto (2013: 251), bankruptcy is defined as a failure in running operations to achieve its goals. The company is considered bankrupt if the rate of return earned by the company is less than the total cost that must be incurred in the long run, therefore, it is necessary to evaluate the performance of the company in managing its capital which is interpreted in the business bankruptcy analysis (bankruptcy prediction). ways that can be done by predicting the bankruptcy of companies using early warning model (early warning system)

Financial distress has a relationship with the bankruptcy of a company, this is the stage of financial downturn before the company went bankrupt (Emrinaldi, 2007) Financial distress. can be interpreted as the inability of the company to pay its financial obligations at maturity that led to bankruptcy of the company (Darsono and Ashari, 2005 in Kartikawati, 2008).

Early warning model (early morning sytem) is one of the early warning system which will show where the positions of the company is currently located, thus the investors and stockholders can determine

whether to keep buying shares of the company or choose another company, in addition it is expected the company can take action to anticipate conditions that lead to bankruptcy as early as possible.

One of the companies engaged in industry is PT. Central Proteinaprima which is engaged in Aquakulture produce frozen shrimp products (raw and processed) shrimp feed, fish feed, shrimp fry and probiotics. Sales of PT. Central Proteinaprima. Tbk from 2007 to 2015 shows an increase in sales value, although the increase is not too high, average sales per year of Rp. 6,480,925 (in millions of rupiah) or 7.77% per annum. When viewed from the net profit earned by the company for nine years turned out to experience kerugiaan large enough that the average of Rp. 1,521,587 (in millions of rupiah) or average annual loss of 36, 41%

Conditions experienced by PT. Central Proteinaprima. Tbk indicates terjadinnya financial distress, this is related to the performance of the company which one of the indicators is the financial performance in addition to non-financial indicators. In this study the indicator used is the financial indicator through financial ratios.

LITERATURE

According to Murtanto (202: 48) the indicator of the occurrence of financial distress begins the difficulty of the company's cash flow from the amount of debt portion, This difficulty occurs when the revenue of the company's revenue from the sales operation is not enough to cover the burden of operating expenses or operating activities of the company. The results of research conducted by Novadea (2015) shows operating cash flow has no significant effect on the condition of financial distress. Masud and Srengga (2012) his research proves the company's operating cash flow affects the condition of financial distress.

In addition to cash flow difficulties, the indicator for predicting financial distress is the ratio of liquidity. The liquidity ratio shows the company's ability to meet its short-term financial obligations. The ratio used in the research is the current ratio. Current ratio is a ratio to show the company's ability to pay its short-term debt by using its current leverage. This ratio is often called working capital ratio (working capital ratio) because working capital is an excess of current assets above current liabilities. The results of research conducted Novadea (2015) show likudity has a significant effect on financial destress. This result is similar to Hidayat's (2014) research which proves liquidity has a significant effect on financial distress condition.

Another ratio used as an indicator to predict the occurrence of financial distress is the ratio of leverage. The leverage ratio shows the company's ability to fulfill its debt obligations both short-term and long-term debt. The ratio often used is the ratio of debt (debt ratio). research Hidayat (2014) which proves leverage have a significant effect on the condition of financial distress. Kamaludin and Personal (2011) results show that leverage has significant effect on financial distress condition, but Novadea (2015) shows that leverage has no significant effect on financial destress condition.

Another ratio used to predict financial distress is Profit Margin. Profit Margin is the profitability ratio used to measure a company's ability to generate profit over a certain period. Based on Luciana Spica Almialia and Emanuel Kristijadi (2003) research, the most dominant financial ratios for determining financial destress are profit margins.

RESEARCH METHODOLOGY

Independent Variable Dependent Variable

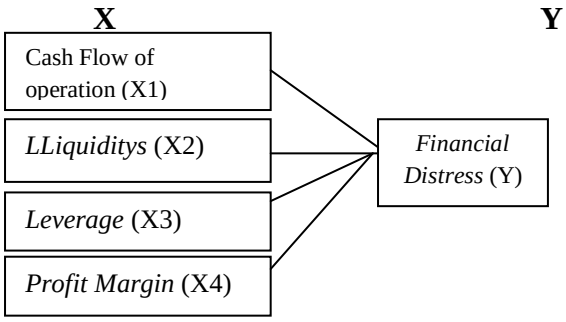

Figure 1. Research Design

1. Research variable

The independent variables in this study are as follows:

1. Operating Cash Flow

Operating cash flows provide an overview of cash flows in and out of the company's operating activities. According to Kiesi, et al (2008) the higher the cash return on total assets ratio the more effectively the use of total assets owned by the company to generate net cash from its operating activities. the company is said to be safe if cash flow perasi is positive. Operating cash flows can be formulated:

$$\text{Operating Cash Flow} = \frac{Cash\ flow\ from\ operating}{Total\ assets}$$

2. Liquidity Ratio

According to Brigham and Houston (2013: 12) the current ratio is calculated by the following formula:

$$\text{Current Ratio} = \frac{Current\ Assets}{Current\ Liabilities}$$

Liquidity ratio is a description of the company's performance to measure the company's ability to pay its debts (liquidity). Liquidity ratio used in this research is current ratio. According to Harahap (2009: 301) the greater the value of the company's current ratio, the higher the company's ability to pay the debt smoothly. The company is said to be safe when its smooth ratio is above 1 or above 100%, meaning that the total current assets should be well above the total current liabilities, vice versa.

3. Leverage Ratio

According to Brigham and Houston (2013: 12) debt to equity ratio is calculated by the following formula:

$$\text{Debt to Equity Ratio} = \frac{Total\ Debt}{Equity}$$

The leverage ratio gives an idea of the size of the company's debt portion when compared to the capital or assets it owns. The leverage ratio used in this research is debt to equity ratio. According to Harahap (2009: 303) the smaller the ratio of debt to equity ratio the better. The company is said to be safe if the ratio of debt to equty ratio is less than 1 or at least equal (1: 1) means the amount of equity is more than the amount of the debt.

4. Profit Margin

According to S. Munawir (2007: 89): Profit margin is the amount of operating profits expressed in percentage and total net sales. Profit Margin measures the level of profit that can be achieved by the company associated with the sale.

According to Sofyan Syafri Harahap (2007: 304): This figure shows how much percentage of net income earned from each sale. The greater this ratio the better because it is considered the ability of the company in obtaining a high enough profit. formulated as follows:

$$\text{Profit Margin} = \frac{\text{Net Profit x 100\%}}{Sales}$$

Dependent Variables

Dependent variable in this research is financial distress. Financial Distress in this research using Altman Z-Score Model. The Altman Z-Score model is an indicator to measure the potential bankruptcy of a company found by Edward I. This model is able to predict financial distress and

bankruptcy with 95% accuracy before financial distress and bankruptcy occur. The model developed by Edward I. Altman in 1968 underwent a modification in 1995, applicable to all companies, both manufacturing and non-manufacturing. The Z-score almant method uses the following formula:

Z-score = 1.2 X1 + 1.4 X2 + 3.3 X3 + 0.6 X4 + 1.0 X5

Where

X1 = 1.2 X1 (working capital / total assets)

X2 = 1.4 X2 (Retained Earning / total asset)

X3 = 3.3 X3 (Earning before income tax / total asset)

X4 = 0.6 X4 (Market value of equity / book value of debt)

X5= 1.0 X5 (sales / total assets)

The resulting predictions of the Z-score score are:

a. Z <1.81 indicates the company is facing a serious bankruptcy threat. This needs to be followed up by the company's management in order to avoid bankruptcy.
b. Z> 1.81 2.99 indicates that the company is in vulnerable condition. Under these conditions management must be careful in managing the company's assets in order to avoid bankruptcy.
c. Z> 2.99 shows in a healthy financial condition and has no problems with finances

3. Research model

This research is causality to test how big influence of operating cash flow, liquidity, leverage, and profit margin to financial distress.

4. Data Collection Technique

4.1 Types and Data Sources

The type of data used in this study is secondary data. Secondary data needed in this research are financial statement of PT. Central Proteinaprima. Tbk in 2007 2015.

4.2 Population and Sample

Population and Sample are financial statements of PT. Central Proteinaprima. Tbk for 9 years, from 2007 2015 presented by the company through publication data.

4.3 Data Analysis Method

The method of analysis used in this study is statistical analysis that is as follows:

1. Descriptive Analysis

According to Nazir, (2013: 43) says in his book Descriptive Analysis is a method in examining the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in the present. The purpose of this descriptive study is to create a description, description, or painting systematically, factually, and accurately about the facts, properties and relationships between the phenomena under investigation

2. Classic assumption test

Before performing regression testing, first tested the classical assumption. The classical assumption test is normality test, multicolinearity, autocorrelation, and heteroscedasticity

4.4 Multiple Regression Analysis

According to Nazir, (2013: 410) says in his book if the parameters of a functional relationship between one dependent variable with more than one variable want to destimize, then regression analysis is done in regards to multiple regression. Multiple regression analysis has the same benefits as simple regression analysis. How much independent variables influence the dependent variable by using the following multiple regression equation:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e$$

Information :

Y = Financial distress
a = Constants
B1,2,3,4 = Regression Coefficient
X1 = Operating cash flow ,
X2 = Liquidity
X3 = Leverage
X4 = Profit Margin
E = error term

4.5 Hypothesis Testing

In this study multiple linear regression analysis techniques used to determine the strength and direction of influence between independent variables or variable explanation (independent / explanatory variable) to one dependent variable (dependent variable). To test whether or not significant hypothesis is used t test. According to Santoso, (2010: 79) The purpose of this test is to find out whether a particular value is given as a comparison. Significantly different or not with the average of a sample. The purpose of this test is to find out whether each independent variable operating cash flows, liquidity, leverage, and profit margin partially have an influence on the dependent variable financial distress. Basic decision-making Based on comparison t arithmetic with t table:

If t arithmetic> t table then H0 is rejected.
If t arithmetic <t table then H0 accepted.

While table statistics can be calculated in table t:

The significance level (α) is 5%, Df or degree of freedom is n (amount of data) - 1 or 12 - 1 = 11. Based on the Probability value If the probability value> 0.05, then H0 is accepted and If the probability value <0.05 , then H0 is rejected..

4.6 Coefficient of Determination Test (R2)

According to Kuncoro, (2004: 84) says in his book The Coefficient of Determination (R2) essentially measures how far the ability of the model in explaining the variation of the dependent variable. The coefficient of determination is between zero and one. If the value of R2 is small or negative value means the ability of variable independent variables in explaining the dependent variable is very limited. A value close to one means the variable of the independent variable provides almost all the information needed to predict the dependent variable variable. While R2 is used to measure the degree of relationship between each variable X to variable Y partially. If R2 can be negative even though R2 is always positive.

RESULT AND DISCUSSION

The normality test aims to test whether in the regression model, the residual or residual variable has a normal distribution. The test equipment used in this study is with normal probality plot graph. If the point spreads around the diagonal line and follows the direction of the diagonal line, then the regression model meets the assumption of normality. If the point spreads far away the diagonal line and or does not follow the direction of the diagonal line, then the regression model does not meet the assumption of normality. The following normality test results in this study are:

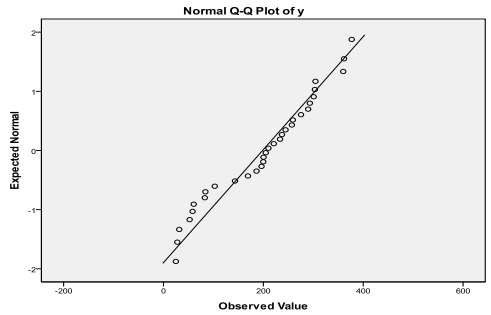

Figure 2. Normal P-P Image Plot Of Regression Standardized Residual (Normality Test)
Source: Author, 2017

Based on Normal P-P table view Plot Of Regression Standardized Residual above seen that the dots spread around the diagonal line. Therefore the normality test of regression analysis is feasible to use although there are few plots that deviate from the diagonal line.

Autocorrelation Test

Autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in period t with the intruder error in period t-1 (previous). One of the most popular formal tests for detecting autocorrelation is the Durbin-Watson test. The following autocorrelation test results in this study are:

In summary model output there is Durbin-Watson value sebeesar 1.7412. At Durbin-Watson table value with N = 32 and four independent variables show dL = 1.1769 and dU = 1.7323. Based on that we can see that the value of d arithmetic or Durbin-Watson model is bigger than dU and smaller than (4-dU). So it can be said there is no problem autokorelasi.
Basic decision-making:

1. Ho accepted if value dU <d count <(4-dU).
   This means there is no autocorrelation either positive or negative
2. Ho is rejected if the value of d count> (4-dL).
   This means there are both positive and negative autocorrelation issues.

Multicollinearity Test

The multicollonierity test is to detect the presence or absence of multicollinearity in a regression model can be done through the value of R2 generated by a very high empirical regression model estimation, but many independent individual variables that do not significantly affect the dependent variable and analyze the correlation matrix of independent variables. Examiners of the presence of multicollinearity in the regression model can be seen by looking at the value of TOL (Tolerance) and VIF (Varian Inflation Factor). If Tolerance is more than 0.1 and VIF is less than 10 then there is no multicolininity.
The following results of multicollinearity testing in this study are:

Table 1. Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	x1	,809	1,236
	x2	,559	1,789
	x3	,677	1,478
	x4	,863	1,158

Source: Author, 2017

Based on the above table, the results of multicolinearity test seen on the table of coefficients obtained the result, the value of Tolerance X1 (operating cash flow) of 0.809 and VIF value 1,236, X2 (liquidity) 0,559 and VIF value 1,789, X3 (leverage) equal to 0,677 and VIF value 1.478, X4 (profit

margin) of 0.863 and the value of VIF 1.158. By looking at the VIF of the variables in the tests above X1, X2, X3, X4 ≥ 0.10 and VIF values ≤ 10, then in this test there are no symptoms of multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is a variance inequality of the residual one observation to another observation. If the variance of the residual one observation to another observation remains, then it is called homoscedasticity and if different it is called Heteroscedasticity. One way to detect the presence or absence of heteroskedastisitas by looking at the pattern of points on the scatter plot. If the point spreads with an unclear pattern above and below the number 0 on the Y axis then the problem point occurs. The following test results of Heteroscedasticity in this study are:

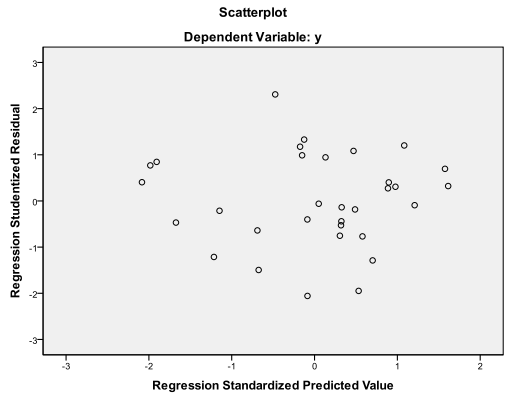

Figure 3. Scatterplot
Source: Author, 2017

Based on the view on the scatterplot it appears that it is spreading randomly and below zero. Heteroskedastisitas test results showed the spread of the point-titk does not form a certain pattern which means the regression model in this study free of Heteroskedastisitas problem means there is no significant disturbance in this regression model.

Multiple Linear Regression Test

Regression analysis aims to determine the effect of independent variables on the dependent variable and how the dependent variable can be predicted through independent variables, individually (partial) or simultaneously (simultaneously).
The results of multiple regression testing are in table 4.
From regression test results obtained equation:
Y = 137,801 - 1160,379 X1 + 103,228 X2 - 1,039 X3 + 381,311 X4 + e

Table 2. Simple Regression Test Results
Table Coefficientsa (t test)

Variable	Coeffcient	t	Sig.
Financial distress	-1160.37	-1.378	0.179
Operating Cash Flow	103.29	3.921	0.001
Liquidity	-1.039	-3.014	0.006
Leverage	381.31	2.889	0.008

Source: author, . 2017

From the results of multiple linear regression equation above can be interpreted:

1. The constant of Y is 137,801. This means that the change of Financial Distress (Y) when all free variables are zero (0) is 137.801
2. The regression coefficient of X1 Operating Cash Flow) is equal to -1160,379 means that if Operating Cash Flow (X1) increases every 1 unit, then Financial Distres (Y) decreases by -1160,379 units.
3. The regression coefficient Liquidity (X2) value is 103,228 means that if Liquidity (X2) increases every 1 unit, then Financial Distress (Y) experienced 103,228 increase of unit.
4. The regression coefficient of Leverage (X3) is 1.039, meaning that if Leverage (X3) increases every 1 unit, then

Financial Distres (Y) experiences a decrease of - 1,039 units.

5. Profit Margin (X4) regression coefficient is 381,311, meaning that if Profit Margin (X4) increases every 1 unit, then Financial Distres (Y) experienced an increase of 381,311 units.

Coefficient of Determination (R2)

The coefficient of determination (adjustedR2) serves to see the extent to which all independent variables can explain the dependent variable. If the coefficient of determination numbers approaches 1, the influence of the independent variable on the dependent variable is stronger, which means that the independent variables provide almost all the information needed to predict the variation of the dependent variable. The following test results determination (R2) in this study are:

Table 3. Table of R-square

Result			
R	R Square	Adjusted R Square	F
0.870[a]	0.757	0.721	21.061

Source: Author, 2017

Based on the table 3 can be seen that the correlation coefficient (R) and coefficient of determination (RSquare), R value explain the level of relationship between independent variables (X) with the dependent variable (Y). From the above data obtained correlation coefficient value of 0.870 or equal to 87.0% means the relationship between variael X (Operating Cash Flow, Liquidity, Leverage and profitability) to variable Y (Financial Distress) in very strong category.

R squared explains how big the relationship Y is caused by X, from the calculation results obtained R2 value of 0.757 or 75.7% means can be explained by independent variables. Adjusted R Square calculation results obtained value of 0.721, meaning 72.1% dependent influenced by the four independent variables. While the remaining 27.9% influenced by factors other than the model. Then it can be concluded that the influence of independent variables quite influential on changes in the dependent variable.

Test statistics simultaneously (Test F)

This test is conducted to know together whether the independent variables significantly influence or not to the dependent variable.

1. The test criteria used are as follows:Ho accepted when F arithmetic <Ftabel. This means that independent variables together do not have a significant effect on the dependent variable.
2. Ho is rejected if F arithmetic> Ftabel. This means that independent variables together significantly influence the dependent variable.

Based on table 3 the result of F test shows the value of F arithmetic of 21.061 and F table 2.49. The value of f arithmetic is greater than f table. with a significant value of 0.000. This significant value less than 0.05 indicates that the independent variables of operating cash flow, liquidity, leverage and profit margin influence simultaneously to the dependent variable of financial distress, so that the hypothesis proposed operating cash flow, liquidity, leverage and profit margin that is influential positive and significant to financial distress accepted. That is, any changes that occur on independent variables simultaneously or together will affect the dependent variable.

Partial Statistics Test (T Test)

The t test is used to partially test each variable. T test results can be seen in the table coefficients on the column sig (significance). If the probability of t value or significance <0,05, then it can be said that there is influence between independent variables to the variable tied partially.

Basic decision making:

1. Ho accepted if t count> t table.
   This means that independent variables significantly influence the dependent variable.
3. Ho is rejected if t arithmetic <t table.
   This means that the independent variable does not significantly influence the dependent variable.

Based on the table2 , the results of multiple regression can analyze the influence of each variable operating cash flows, liquidity, leverage and profit margin on financial distress can be seen from the significant level. Liquidity, leverage, and profit margin variables have an influence on financial distress because of the significance value <0.05.

RESULTS AND DISCUSSION

Hypothesis testing

Hypothesis 1

H1: Operating cash flow significantly affects the financial condition of PT.Central Proteinaprima. Tbk

Partial test results obtained t arithmetic for variable operating cash flow of -1.378. The value of t arithmetic smaller than t table 1.703 shows variable operating cash flow has no effect on the condition of financial distress.

SPSS output results show that the first hypothesis significant value 0.179 greater than alpha 0.05 which means that operating cash flow is not significant to the condition of financial distress.

Based on t calculation and signification 0.05, it is concluded that operating cash flow has no effect and not significant to distress performance condition, this is because the company has high level of operating cash flow can not give an idea that the company can increase its operational activities such as paying off the loan to creditors so that have an effect to decrease company risk of having financial distress condition (novadea 2015).

Hypothesis 2

H2: Liquidity significantly affects the financial distress at PT.Central Proteinaprima.Tbk

Partial test results obtained t arithmetic for liquidity variables of 3.921. The value of t arithmetic greater than t table 1.703 shows the liquidity variables have an influence on the condition of financial distress. SPSS output results show that liquidity significant value 0.001 is smaller than alpha 0.05 this means that liquidity is significant to the condition of financial distress.

Based on the results t count and significance 0.05 this means that liquidity is significant and significant to financial distress. This research is in accordance with the research conducted by Kiki Miadita (2017) which shows that likudity has an effect on and significant to financial distress. Other research results are Luciana and Kristijadi (2003) in the journal Imam Masud (2011) which says that likudity has a significant influence on financial distress.

Hypothesis 3

H3: leverage has a significant effect on financial distress at PT.Central Proteinaprima.Tbk

Partial test results obtained t arithmetic for leverage variables of 3,014 The value of t arithmetic greater than at t table 1.703 indicates leverage variables have an influence on the condition of financial distress. SPSS output results show that leverage has a significant value of 0.006 smaller than alpha 0.05 this means that leverage significant to the condition of financial distress.

Based on t count and significance of 0.05 this means that leverage have an effect on and significant to finansial distress The

result of this research is contrary to research conducted by Ayu Widuri and Muazaroh (2015) which stated that leverage has no significant influence to financial distress. Research conducted Kiki Miadita also concluded laverage does not affect the financial distress.

Hypothesis 4

H4: profit margin has significant effect on financial distress at PT.Central Proteinaprima.Tbk

Partial test results obtained t arithmetic for profit margin of 2.889. The value of t arithmetic greater than t table 1.703 shows profit margin variables affect the condition of financial distress. SPSS output results show that profit margin has a significant value of 0.008 smaller than alpha 0.05 this means that profit margin significant to the condition of financial distress.

Based on the results t count and significance 0.05 this means that profit margin influential and significant to financial distress This is in line with research conducted Nia Nurlela 2017 results show Net Profit Margin effect on finansial distress

.

CONCLUSIONS

Based on the results of data analysis and discussion There is no effect between Cash flow operational to the condition of financial distress at PT. Central Proteinaprima. Tbk. But contrary to the liqudity has effect to the condition of financial distress at PT. Central Proteinaprima. Tbk significantly. Meanwhile Leverage has influential and significant to the condition of financial distress at PT. Central Proteinaprima. Tbk. So does, the Profit margin influential and significant to the condition of financial distress at PT. Central Proteinaprima. Tbk

Therefore, based on the limitation of research conducted, the suggestions that can be submitted the study should use a sample of the company so that more samples, adding research variables in affecting Financial Distress, such as activity ratio, and finally using other methods of predicting Financial Distress

REFERENCES

Brigham, Eugene F; & Houston, Joel F. (2013). *Fundamental Financial Management* Salemba 4. Jakarta

Emrinaldi. (2007). *Influence Analysis of Corporate Governance Practices on Financial Distress: An Empirical Study*. *Journal of Business and Accounting (9)* 1: 88-104

Hidayat, Muhammad Arief. (2014). *Financial Distress Predictions Manufacturing Companies In Indonesia (Empirical Study of Manufacturing Companies Listed on Indonesia Stock Exchange* Period 2008-2012). Diponergoro University. Semarang

Harahap, Sofyan Syafri . (2009). *Critical Analysis of Financial Statements.* Raja GrafindoPersada. Jakarta

I Mas'ud, Srengga (2012). Financial Ratio Analysis To Predict Financial Distress Condition Of Manufacturing Companies BEI. *Jurnal Accounting Universitas Jember*

Kamaludin, Pribadi, Karina Ayu (2011). Financial Distress Prediction Manufacturing Imdustry Case Approach Logistic Regression Model. *Jurnal Ilmiah STIE MDP (1)*

Kartikawati,S. (2008). Z-Score Analysis In Measuring Financial Perfomance To Predict Financial Distress At Seven Manufackturing Companies In The BEI. *Jurnal Penelitian.Universitas Gunadarma. Jakarta*

Kieso et al. (2008) . *Akunatansi Intermediate*. Edisi 12 .Jakarta :Erlangga

Kristijadi, Almilia Luciana S. (2003). *Financial Ratio Analysis To Predict Financial Distress Conditional Manufacturing Companies Listed on* the Jakarta Stock Exchange.

Munawir S.. 2007. *Financial Statement Analysis*. Edisi Ke Empat.Liberty.Yogyakarta

Nazir, M. (2013). *Research Methods.*Bogor. Ghalia Indonesia

Rudianto. (2013). *Accounting Information Management For Strategic Decision Making.* Erlangga. Jakarta.

Reeveet.al. (2012). *Introduction Accounting Adaptation Indonesia Book2*. Salemba 4. Jakarta

Vitarianjani. Novedea. (2015). Financial Distress Prediction Analysis and Factors Affecting Empirical Studies on Coal Companies Listedon IDX Year 2011-2014. *Journal of Accounting, Faculty of Economics,University of Jember. Student Scientific Articles 2015.*