

# Influence of The Ratio of Profit Margin, Financial Leverage Ratio, Current Ratio, Quick Ratio Against The Conditions and Financial Distress

Study on the manufacturing companies listed on the Indonesia stock exchange Period 2008-2009

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**Abstract—** Financial distress is occurred before bankruptcy. This condition could be predicted by analyzing Financial Statement. This study aims to determine whether there is significant influence between profit margin ratio, financial leverage ratio, current ratio, and quick ratio on Financial distress to determine how much their influence on Financial distress in a Company. Based on result of data processing using SPSS 17.0 version, the author obtained value of multiple correlation coefficient in 2008 is 0.933 (R), it means  $X_1$  (profit margin ratio),  $X_2$  (financial leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) jointly have strong and positive relationship in predicting Financial distress, And for value of multiple correlation coefficient in 2009, obtained 0.582 (R), it means  $X_1$  (profit margin ratio),  $X_2$  (financial leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) jointly have strong and positive relationship in predicting Financial distress. Based on F-test calculation in 2008, multiple linear regression is obtained that  $F_{hitung} > F_{table}$ . Value of  $F_{hitung}$  is 40,962, whereas value of  $F_{table}$  is 2,922, it means that  $H_a$  is rejected and  $H_o$  is accepted. This means regression model can be used to predict financial distress condition or it can be said that  $X_1$  (profit margin ratio),  $X_2$  (financial leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) jointly influence significantly on Company's Financial Statement condition (Y). whereas for F-test calculation in 2009, multiple linear regression is obtained that  $F_{hitung} > F_{table}$ , value of  $F_{hitung}$  is 13,839 and value of  $F_{table}$  is 2,922. it means that  $H_a$  is rejected and  $H_o$  is accepted. This means regression model can be used to predict financial distress condition or it can be said that  $X_1$  (profit margin ratio),  $X_2$  (financial leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) jointly influence significantly on Company's Financial Statement condition (Y).

**Keywords—** profit margin ratio; financial leverage ratio; current ratio; quick ratio; financial distress; bankruptcy.

## I. INTRODUCTION

This template, Along with the multi-dimensional crisis that hit Indonesia, a lot of trouble and suffering experienced by the

nation. That includes prominent in economic aspects, namely the terpuruknya of economic activity as more and more companies that are bankrupt, liquidated banks and the growing number of unemployed workforce. The cause of this crisis, according to Tarmidi (1999:1), not because of weak economic fundamentals, but because of the private foreign debt which has reached a considerable amount.

The financial condition of a company is a very valuable information for both parties outside as well as inside the company. If the financial condition of the company is in good shape, then the survival of the company can continue to be awake so that generally provide a positive influence to all parties. But each company certainly has the possibility to experience a situation where the financial condition is unstable even led to the bankruptcy of the company. The bankruptcy of the company, either directly or indirectly, will cause a negative impact for the condition of the economy. The unemployment rate on the rise, the failure of a bank bill payment, negative economic growth rates and costs arising out of such bankruptcy

The bankruptcy of a company can be seen and measured through financial reports. Financial statements issued by the company are one source of information about the company's financial position, performance and changes in financial position of the company, which is very useful to support proper decision-making, data finance should be converted into information that is useful in economic decision-making, Foster (1986)

Various studies have been conducted to examine manfaat to be learned from the analysis of financial ratios. Research conducted by Altman (1968) was an early research examining utilization analysis of financial ratios as a tool to predict the bankruptcy of the company. Altman stated that if the company has a 2.99 bankruptcy index or more then the company does not include the companies that will be categorized into bankruptcy. While the company that owns the bankruptcy

index 1.81 or less then company include category went bankrupt. She found there are five financial ratios that can be used to detect bankruptcy the company two years before the company went bankrupt. The fifth consists of the ratio : *cash flow to total debt, net income to total assets, total debt to total assets, working capital to total assets, dan current ratio.*

[6] (1994) tested the benefits of financial ratios to predict earnings of companies in the future. It was found that the financial ratios used in the model, it is useful to predict profit a year ahead, but not useful to predict more than a year.

Prediction of financial distress of companies of concern and a lot of parties. General model of financial distress hold on data of bankruptcy, because these data are easily obtained.

In earlier research, for testing whether a company experiencing financial distress can be specified in various ways, such as:

- LAU (1987) and Hill et al. (1996) used the existence of a labour dismissal or eliminate dividend payments.
- Asquith, Gertner and Scharfstein (1994) use the interest coverage ratio to define financial distress.
- Whitaker (1999) measuring financial distress by way of the existence of smaller cash flow from long-term debt at this time.
- John, Lang and Netter (1992) defined financial distress as the change in equity prices.

Platt and Platt (2002) do research on 24 companies that are experiencing financial distress and 62 companies that do not experience financial distress, using a logit model they are attempting to determine the most dominant financial ratios for memprediki the existence of financial distress. Referring to previous research conducted by Luciana and Kristijadi (2003) on the analysis of financial ratios to predict financial distress condition manufacturing companies listed in Jakarta Stock Exchange financial reporting period 1998-2001 by using a sample of 24 companies experiencing financial distress and zoned 37 who do not experience financial distress, the method used is logistic regression statistical analysis methods and forms the logit regression equation 12 times to combine each financial ratio which consists of 19 ratio-the ratio of each financial ratio represents the ratio of profit margins, liquidity, efficiency of operations, profitability, financial leverage, cash position and growth.

However, in a study conducted by Sri Hartati (2005) a variable ratio net profit growth did not influence significantly the financial distress conditions against the company. Therefore researchers don't use the variable ratio of growth in this study. Research in this thesis is the replication of research conducted by Luciana and Kristijadi. Financial ratio used is the profit margin ratio that is net income divided by sales (NI/S), the ratio of financial debt leverage that is smoothly divided by total assets (CL/TA) and a liquidity ratio that is current assets divided by debt smoothly (CA/ CL). Research period used IE 2004-2005 year. The condition of financial distress was

measured using the value Z Altman or Altman Z score. In his research, Altman put companies into three categories, the first company that has a very large financial difficulty and high risk so that the possibility of insolvency is very wide open. Both i.e. companies that are in the gray area so categorized as companies that have financial difficulties, but the possibility was saved from bankruptcy is still open, because in this category companies have balanced between the possibility of being bankrupt or not bankrupt. This depends on the decision or the discretion of the company management as decision makers. And the third is a very healthy company so did not experience financial difficulties.

#### A. *The formulation of the problem*

Based on the descriptions above, outline of the issue identification the issue that will be addressed are:

- How to influence ratio profit margin against the condition of financial distress in manufacturing company?
- What is the ratio of financial leverage against the influence of conditions of financial distress in manufacturing company?
- Whether there is influence of current financial conditions against the distress ratio in manufacturing company?
- Whether there is influence of the quick ratio against the condition of financial distress in manufacturing company?
- How the influence of the ratio of profit margin, financial leverage ratio, current ratio and quick ratio together against the condition of financial distress in manufacturing company?

#### B. *Research objectives:*

- To know how to influence ratio profit margin against the condition of financial distress at manufacturing companies.
- To find out how the influence of the ratio of financial leverage against the condition of financial distress in manufacturing company
- To find out whether there is influence of current financial conditions against the distress ratio at manufacturing companies
- To find out whether there is influence of the quick ratio against the condition of financial distress in manufacturing company
- To find out how the influence of the ratio of profit margin, financial leverage ratio, current ratio, quick ratio and collectively towards the condition of financial distress at companies manufactur.

## II. LITERATURE REVIEW

### A. Capital Market

According to [5] (2010:359) capital market is a place or system to meet the needs of funds or capital for an enterprise. Capital markets bring together sellers and buyers of securities. The capital market is the market for the long term financial instruments sharing that can be sold, either in the form of debt, equity, derivatives, instruments or other instruments. The capital market is a means of funding for the company as well as other institutions, so that capital markets facilitate the various infrastructure and selling activities and other related activities. The capital market is believed to be as a vehicle penghimpun long-term funds and is an alternative source for private companies, state-owned enterprises and corporate areas. A growing number of companies that finance its investments by issuing bonds as an alternative when compared with bank credit.

### B. Financial Report

According to [8] (2004:2) financial reporting is essentially a result of the accounting process that can be used as a tool for communication between the financial data or activity of a company with parties with an interest in the data or the activity of the company. [2] (2006:1) means the financial report as a list of final summary of financial transaction organizations that shows all the operational activities of the Organization and as a result during the fiscal year in question.

And Gen. [1] (2005:13) defines the financial report as a report that contains information about the financial position, the results of the efforts, changes in equity and the cash flow of the company. This information is required to view the performance management in exercising the powers granted by the owner. [10] (2007:105) defined as the image of financial reports and business results financial condition of a company at a particular moment or period of time. Users of financial statements includes the investor now and potential investors, employees, lenders, suppliers and other business lenders, customers, the Government and its agencies and the community.

According to [7] (2006:212) explains the purpose of the financial statements according to APB statement No.4, and those goals can be summarized as follows: the specific purpose of financial reporting is presenting reasonably and in accordance with accounting principles generally accepted, the financial position, operating results and other changes in financial position.

### Analysis of Financial Reports

The financial statements will be more beneficial to economic decision-making when information from the financial statements can be used to predict what will happen in the future. Analysis of financial statements is everything that concerns the use of accounting information to make business decisions and investment. [4] (2011:13) in the craft made an analysis of the financial statements often occur with engineering goals and intentions, with grounded because of

factors like to take advantage. One of the most competent party to reverse engineer

Soemarso (2005:380) outlines the financial analysis report as a relationship between a numbers in the financial statements with the other numbers have meaning or can explain the direction of the change (trend) of a phenomenon.

In a book of *Financial Statement Analysis*, according to [11] (2007 : 122 )

*“Shareholders’ Equity is Equity refers to owner ( shareholder ) financing of a company. It is viewed as reflecting the claims of owners on the net assets of the company “.*

[10] (2007:190) explained that the analysis of financial statements is to elaborate on the outposts of financial statements into smaller information and see the relation that is significant or has meaning between the one with Another good between quantitative data as well as the non-quantitative data with the aim of knowing the financial condition deeper which is very important in the process of making the right decision.

### Financial Ratio Analysis

Financial ratio analysis is designed to help evaluate financial statements. Calculating ratio analysis using the data contained in the balance sheet and income statement. [5] (2010:51) outlines that the ratio describes a relationship between a number of considerations or certain other amounts, and using the analysis tools in the form of a ratio will be able to explain or give an overview to analysis about the good or bad circumstances or financial position of a company especially when the ratio numbers compared to the comparison ratio figures are used as standard.

### Financial Distress

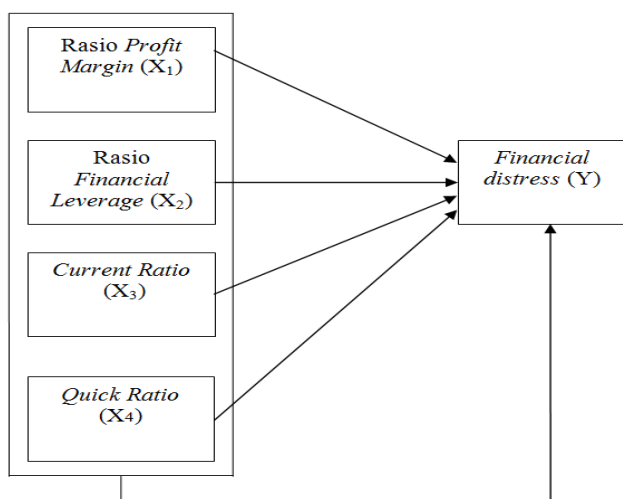
Sandy Ariansyah Teguh (2006:22) defines the financial distress as the company's failure in running the operations of the company to generate profit and as well as the liquidation of the company (the closure of the company insolvabilitas).

And Gen. [6] (2005:102) suggested that the cause of bankruptcy can be divided into two internal factors and external factors. The internal factor is the factor that comes from a part of the internal management of the company, while external factors can come from external factors directly related to the company's operations or macro economy as a factor.

### Framework For Thinking

The framework of thought is the rationale of the researchers synthesized from facts, observation and study of librarianship. The description within the framework of thought describes the relationship and linkages between the free variables and bound variables. Variables are explained in depth and research relevant to the problems examined so that it can be relied upon to answer the problem of proving the hypothesis or research studies. In this study the author looking

for influence between financial ratios against the conditions of the financial distress of companies. In order to clarify the framework of thought can be seen in the figure below



Source: Processed data.

Fig. 1. The Framework of Thought

Rasio profit margin is independent variabel first ( $X_1$ )  
 Rasio financial leverage is independent variabel second ( $X_2$ )  
 Current ratio is independent variabel third ( $X_3$ )  
 Quick ratio is independent variabel fourth ( $X_4$ )  
 Financial distress is dependent variabel ( $Y$ )

#### Research Hypothesis Formulation

Based on the description above, it can be formulated a hypothesis to be tested in this study are:

- 1) *The profit margin Ratio*
  - a)  $H_0$ : there were no significant effects between  $X_1$  (ratio of profit margin) of  $Y$  (financial distress) company.
  - b)  $H_A$ : there is significant influence among  $X_1$  (ratio of profit margin) of  $Y$  (financial distress) company.
- 2) *Financial leverage Ratio*
  - a)  $H_0$ : there were no significant effects between  $X_2$  (ratio of financial leverage) of  $Y$  (financial distress) company.
  - b)  $H_A$ : there was significant influence between the  $X_2$  (ratio of financial leverage) of  $Y$  (financial distress) company
- 3) *Current ratio*
  - a)  $H_0$ : there were no significant effects between  $X_3$  (Current ratio) of  $Y$  (financial distress) company.
  - b)  $H_A$ : there was significant influence between the  $X_3$  (Current ratio) of  $Y$  (financial distress) company
- 4) *Quick ratio*

- a)  $H_0$ : there were no significant effects between  $X_4$  (Quick ratio) of  $Y$  (financial distress) company.
  - b)  $H_A$ : there was significant influence between the  $X_4$  (Quick ratio) of  $Y$  (financial distress) company
- 5) *The profit margin Ratio, the ratio of Financial leverage, Current ratio and Quick ratio against the conditions of the financial distress of companies.*
- a)  $H_0$ : there was no influence of  $X_1$  (ratio of profit margin),  $X_2$  (ratio of financial leverage),  $X_3$  (Current ratio) and  $X_4$  (Quick ratio) are jointly against  $Y$  (financial distress) company.
  - b)  $H_A$ : there is an influence of  $X_1$  (ratio of profit margin),  $X_2$  (ratio of financial leverage),  $X_3$  (Current ratio) and  $X_4$  (Quick ratio) are jointly against  $Y$  (financial distress) company.

### III. RESEARCH METHODOLOGY

#### A. Research methods

##### 1) Research Object

In this research that became the object of research is the Profit Margin Ratio ( $X_1$ ), the ratio of Financial Leverage ( $X_2$ ), Current Ratio ( $X_3$ ), and a Quick Ratio ( $X_4$ ). While the condition of financial distress is the dependent variable/called with variable ( $Y$ ).

##### 2) Types of Research

On the research of this kind of research method using descriptive, i.e. research conducted to find out the value of the independent variable, whether one or more variables (the independent), or to know and be able to explain variable characteristics are examined in a given situation (Uma Sekaran: 158).

##### 3) Data collection Techniques

Research on technique of data collection use techniques of observation, i.e. the collection of data by observing people or events in the work environment and record information (Uma Sekaran: 240). The author uses the technique of collecting data through observation of field, i.e., with a visit to the BEI to obtain financial data of manufacturing companies registered in BEI. Data obtained in the form of the financial statements of the company manufacturing industries listed on the Indonesia stock exchange period of 2008 to 2009.

##### 4) Population and Sample

Population is a whole group of people, events, or things to researchers investigating (Uma Sekaran: 241).

The population of this research is a company manufacturing Basic Industrial And Chemicals that are listed in the Indonesia stock exchange publish report Samples

Sampling is the process of choosing elements of the population so characteristic can be generalized population. Sampling involves the selection of design decisions and measures (Uma Sekaran: 245). The sample of this research is the manufacturing company Basic Industry And Chemicals that are listed in the Indonesia stock exchange publish financial statements in 2008-2009 amounted to 35 companies.

B. Data analysis methods

1) Classic Assumption Test.

a) Heterokedastisitas

Heterokedastisitas testing was conducted to test whether inequality occurs in the model of the residual variance of one other observation to observation. If the variance is different then it is called heterokedastisitas. The regression model is said to be good if homokedastisitas. Way to predict future is to look at the graphs plot between the prediction variable (ZPRED) and residualnya (SRESID): with a view of a particular pattern on the graph of the scatterplot between SRESID and ZPRED. If there is a particular pattern, such as certain patterns that make up the point that regular (wavy), then indicate heteroskedastisitas has occurred, and if there is no obvious pattern and dots spread above and below the 0 on the X axis, then not the case heteroskedastisitas ([9].: 242).

b) Multicollinearity

Testing was conducted to test whether the multicollinearity in regression models uncovered the existence of a correlation between independent variables. If there is a correlation, then there is a problem of multicollinearity. A regression model which should not happen good correlation between independent variables. The detection of the presence of multikolerasi can be done by looking at the value of the variance inflation factor (VIF) or tolerance value. Limits of tolerance value is 0.1 and the VIF is 10 ([9].: 238).

2) Correlation Analysis

a) Multiple Correlation

Multiple correlation analysis is used to find out the relationship between the levels of one or more independent variables and the dependent variable one ([9].: 143).

$$R_{yX_1X_2X_3X_4} = \frac{b_1\sum X_1Y + b_2\sum X_2Y + b_3\sum X_3Y + b_4\sum X_4Y}{\sum Y^2} \quad (1)$$

- $R_{yX_1X_2X_3X_4}$  = Correlation between variables  $X_1, X_2, X_3$  dan  $X_4$  together with variables  $Y$
- $b_1 - b_4$  = Regression coefficient
- $\sum X_1Y$  = Sum between  $X_1$  with  $Y$
- $\sum X_2Y$  = Sum between  $X_2$  with  $Y$
- $\sum X_3Y$  = Sum between  $X_3$  with  $Y$
- $\sum X_4Y$  = Sum between  $X_4$  with  $Y$

$$\sum Y^2 = \text{Sum } Y^2$$

TABLE I. GUIDELINES FOR GIVING INTERPRETATIO AGAINST CORRELATION COEFFICIENT

Interval Koefisien	The Level of Relationship
0,00 – 0,199	weakest
0,20 – 0,399	Weaker
0,40 – 0,599	Medium
0,60 – 0,799	Higher
0,80 – 1,000	Highest

In general the value of the correlation coefficient lies between -1 and 1 or  $-1 < r < 1$ , in other words the correlation coefficient has a value of most small -1 and most of the 1 with the following criteria:

1. If  $r = 1$  or close to 1, then the relationship between the X and Y variables at strong positive.
2. If  $r = -1$ , or close to 1, then the relationship between the variable X san Y very strongly negative.
3. If  $r = 0$  or close to 0 then there is no relationship or very tenuous relationship between variables X and Y.

b) Partial Correlation

Partial correlation formula as follows:

$$r_{Y X_1 \cdot X_2 X_3} = \frac{r_{Y X_1 X_2} - r_{Y X_3 X_2} \cdot r_{Y X_1 X_3 X_2}}{\sqrt{1-r^2 X_1 X_3 X_2} \sqrt{1-r^2 Y X_3 X_2}} \quad (2)$$

$$r_{Y X_2 \cdot X_1 X_3} = \frac{r_{Y X_2 X_1} - r_{Y X_3 X_1} \cdot r_{Y X_2 X_3 X_1}}{\sqrt{1-r^2 X_2 X_3 X_1} \sqrt{1-r^2 Y X_3 X_1}} \quad (3)$$

$$r_{Y X_3 \cdot X_1 X_2} = \frac{r_{Y X_3 X_1} - r_{Y X_2 X_1} \cdot r_{Y X_3 X_2 X_1}}{\sqrt{1-r^2 X_3 X_1 X_2} \sqrt{1-r^2 Y X_2 X_1}} \quad (4)$$

c) Multiple Linear Regression Analysis

Multiple linear regression analysis is used to find out how big a level of influence between one or more independent variables with the dependent variable one ([9].: 126). Multiple linear regression formula is as follows:

$$\hat{Y} = a + b_1 X_1 + b_2 X_2 + \dots + b_n X_n + \epsilon \quad (5)$$

Where:

- $\hat{Y}$  = Variabel dependen (value prediction)
- $X_1$  = Net income to sales
- $X_2$  = current liabilities to total asset
- $X_3$  = current asset to current liabilities
- $X_4$  = current asset-inventory to current liabilities
- a = Constanta
- b = Coefisien regresi (the value of an increase or decrease)
- $\epsilon$  = error term

C. Testing Hypothesis

Hypothesis testing is to test whether the data of coefficient of correlation and regression test conducted with t, where t-test was used to test the free variables or independent variable (Duwi Priyatno: 9) individually against variables bound with the following steps:

1) Test Correlation coefficient of Double Significance.

a) formulation of the hypothesis:

- $H_0 : \rho = 0$  (there is no relationship between the variables)
- $H_a : \rho \neq 0$  (there is relationship between the variables)

b) Test statistic:

$$F_0 = \frac{R^2 / k}{(1 - R^2) / (n - k - 1)} \quad (6)$$

\*Where:

The correlation Coefficient  $r =$  double  
 $k =$  the number of independent variables  
 $n =$  number of sample members

Test Criteria:

$F_0 > F_\alpha ; V_1, V_2;$  significance of  $H_0$  rejected  
 $F_0 < F_\alpha ; V_1, V_2;$  significance of  $H_0$  rejected

\*where:

$V_1 = k$   
 $V_2 = n - k - 1$

2) Significance Test of Partial Correlation Coefficient

a) Hypothesis Formulation:

- $H_0 : \rho = 0$  (there is no relationship between X and Y)
- $H_a : \rho \neq 0$  (there is no relationship between X and Y)

b) Test statistic:

$$t_0 = \frac{rp \sqrt{n - k - 1}}{\sqrt{1 - rp^2}} \quad (7)$$

\*Where:

$rp =$  Partial correlation is found  
 $n =$  Number of samples  
 $t =$  t arithmetic which subsequently consulted with t table

c) Test Criteria:

$$t_0 > t \frac{\alpha}{2} ; (n-2); \text{significance of } H_0 \text{ is rejected} \quad (8)$$

$$t_0 < -t \frac{\alpha}{2} ; (n-2); \text{significance of } H_0 \text{ is rejected} \quad (9)$$

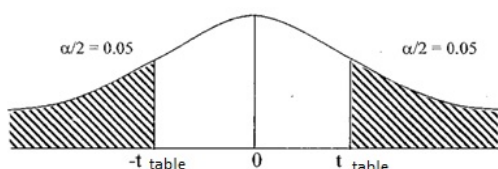


Fig. 2. Location of Rejection Area  $H_0$  and Receiving Area  $H_a$

3) Significance Test of Double Regression Coefficient

a) Hypothesis Formulation:

- $H_0: \beta_1 = \beta_2 = 0$  (there is no influence between X and Y)
- $H_a: \beta_1 \neq \beta_2 \neq 0$  (there is an influence between X and Y)

b) Test statistic:

$$F_0 = \frac{R^2 / k}{(1 - R^2) / (n - k - 1)} \quad (10)$$

\*Where:

$R =$  Double correlation coefficient  
 $k =$  Number of independent variables  
 $n =$  Number of sample members

c) Test Criteria:

$F_0 > F_\alpha ; V_1, V_2;$  significance of  $H_0$  is rejected  
 $F_0 < F_\alpha ; V_1, V_2;$  significance of  $H_0$  is rejected

\*where:

$V_1 = k - 1$   
 $V_2 = n - k - 1$

4) Significance Test of Partial Regression Coefficient

a) Hypothesis Formulation:

- $H_0: \beta = 0$  (there is no influence between X and Y)
- $H_a: \beta \neq 0$  (there is an influence between X and Y)

b) Test Statistics

$$t_0 = \frac{b}{S_e} = \frac{b \sum x^2}{S_e} \quad (10)$$

c) Test Criteria:

$$t_0 > t \frac{\alpha}{2} ; (n-k-1); \text{significance of } H_0 \text{ is rejected} \quad (11)$$

$$t_0 > -t \frac{\alpha}{2} ; (n-k-1); \text{significance of } H_0 \text{ is rejected} \quad (12)$$

5) Coefficient of Determination

The coefficient of determination is a value that shows how big the contribution of X to the rise and fall of the value of Y (Duwi Priyatno: 66).

Formula:

$$KD = R^2 \times 100\% \quad (13)$$

The real level of  $\alpha = 0,05$  means that the magnitude of risk that the decision maker must make is 5% if the decision is wrong.

#### IV. DISCUSSION

Based on the test of 2008 using correlation and regression analysis then obtained the following discussion:

1) For Influence  $X_1$  (profit margin ratio) (Net income to sales) in predicting the condition of Y (financial distress) company. Result of partial correlation analysis  $X_1Y$  relationship between variable  $X_1$  (profit margin ratio) Net Income to Sales to Y (financial distress) Altman Zscore show correlation coefficient value 0,199 which mean having partial and positive relationship partially. While the significance correlation  $R_{YX_1}$  partial variable  $X_1$  (profit margin ratio) Net Income to Sales to Y (financial distress) Altman Zscore showed significance value  $0.644 > 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected means there is no significant relationship between variables  $X_1$  (profit ratio margin) against Y (financial distress). Result of partial regression significance test for  $X_1$  variable (profit margin ratio) t value  $> t_{table}$  or  $-0,467 < 2,042$ , then  $H_0$  is accepted and  $H_a$  is rejected. So  $X_1$  (profit margin ratio) has no significant effect on Y condition (financial distress) company. Profit margin ratio is often referred to as Return on Sales. This ratio shows the return achieved by the company as reflected by each company's sales value. In addition, the profit margin ratio is used to calculate how much a company's ability to generate net income at certain sales levels. A high profit margin ratio signifies a high company's ability to generate profits at a certain level of sales. The company's ability to generate profits, of course, directly affects the outcome of the company.

The above definition is in line with the results of research that prove that  $X_1$  (profit margin ratio) has relationship and influence to condition of Y (financial distress) or in other words the result of this research reject  $H_0$  and accept  $H_a$  that there is significant influence between  $X_1$  (profit margin ratio) to the condition of Y (financial distress) company. Or in other words the profit margin ratio is proven to predict the company's financial distress. The higher the company's ability to generate profits, the more increasing the health condition of the company. Profit generated can also be used to invest so as to provide returns that ultimately also increase the company's own profit.

2) Influence  $X_2$  (leverage ratio) in predicting condition of Y (financial distress) company. Result of partial correlation analysis  $X_2Y$  relationship between variable  $X_2$  (leverage ratio) Current Liabilities to Total Asset to Y (financial distress) Altman Zscore show correlation coefficient 0,271 means having a partial and positive relationship partially. While the correlation of partial correlation  $R_{YX_2}$  variable  $X_2$  (leverage ratio) Current Liabilities to Total Asset to Y (financial distress) Altman Zscore show significance value  $0.067 > 0.05$

then  $H_0$  is accepted and  $H_a$  is rejected means there is no significant relationship between variables  $X_2$  (leverage ratio) to Y (financial distress). Result of partial regression significance test for variable  $X_2$  (leverage ratio)  $t_{value} < t_{table}$  or  $1,899 < 2,042$ , then  $H_0$  is accepted and  $H_a$  is rejected. So  $X_2$  (leverage ratio) does not have a significant effect on Y condition (financial distress) company. This means that the information from  $X_2$  (leverage ratio) that is Current Liabilities to Total Asset can not be used to predict the company's financial distress condition. It turns out the leverage ratio does not indicate that a company is experiencing financial distress. This study received  $H_0$  and rejected  $H_a$ . This ratio measures the extent to which the company's assets are financed by the use of foreign capital or measures the amount of current debt to finance the company's assets. Company assets including inventory will of course add value to sales that ultimately affect the value of the company's profit or loss. But keep in mind, that the assets obtained by adding the value of debt, in other words the increase in value of sales is also accompanied by increasing the value of debt. Thus the definition is in line with the results of research that the information contained in the leverage ratio has no effect in assessing the company's financial distress.

3) Influence  $X_3$  (current ratio) in predicting condition of Y (financial distress) company. Result of partial correlation analysis  $X_3Y$  relationship between variable  $X_3$  (current ratio) Current Assets to Current Liabilities to Y (financial distress) Altman Zscore shows correlation coefficient value 0.992 which means having a partial and positive relationship partially. While the significance of the partial correlation  $R_{YX_3}$  variable  $X_3$  (current ratio) Current Assets to Current Liabilities to Y (financial distress) Altman Zscore shows the significance value of  $0.010 < 0.05$  then  $H_0$  rejected means there is a significant relationship between variables  $X_3$  (current ratio) to Y (financial distress). Result of partial regression significance test for variable  $X_3$  (current ratio)  $t_{value} > t_{table}$  or  $8,268 > 2.042$ , then  $H_0$  rejected and  $H_a$  accepted. So  $X_3$  (current ratio) has a significant effect on Y condition (financial distress) company.

Current ratio measures the ability of a company to meet its obligations that will soon mature, so that if the obligation is not met, then a company is experiencing a default condition that ultimately leads to the bankruptcy of the company. In other words, the liquidity ratio measures the level of a company's liquidity. The more liquid a company, the higher the value of liquidity ratio, the healthier the company's condition. This is in line with the results of this study where  $H_0$  rejected and  $H_a$  accepted that there is a significant influence between  $X_3$  (current ratio) to the condition of Y (financial distress) company or in other words, liquidity ratio can predict the company's financial distress condition.

4) Influence  $X_4$  (quick ratio) in predicting the condition of Y (financial distress) company. Result of partial correlation analysis  $X_4Y$  relationship between variable  $X_4$  (quick ratio) Current Assets-inventory to Current Liabilities to Y (financial distress) Altman Zscore show value of correlation coefficient

0,972 meaning to have partial and positive relationship partially. While the partial correlation correlation  $R_{yx_4}$  variable  $X_4$  (quick ratio) Current Assets-inventory to Current Liabilities to Y (financial distress) Altman Zscore shows the significance value of  $0.445 > 0.05$  then  $H_4$  is accepted and  $H_a$  rejected means there is no significant relationship between variables  $X_4$  fast ratio) to Y (financial distress). Result of partial regression significance test for variable  $X_4$  (quick ratio)  $t_{value} > t_{table}$  or  $-0,775 < 2,042$ , then  $H_0$  accepted and  $H_a$  rejected. So  $X_4$  (quick ratio) has no significant effect on Y condition (financial distress) company. Rapid Ratio is often called quick ratio that is the ratio between current assets after deducted inventory with current liabilities. This ratio is a measure of the company's ability to meet its obligations by not taking into account inventory, because inventory takes a relatively long time to be realized into cash and assume that receivables can be immediately realized as cash. Rapid ratio measures the ability of a company to meet its obligations that will soon mature, so that if the obligation is not met, then a company is experiencing a default condition that ultimately leads to the bankruptcy of the company. In other words, the ratio quickly measures the level of a company's liquidity. The more liquid a company is, the higher the quick ratio value, the healthier the company's condition. This is in line with the results of this study where  $H_0$  rejected and  $H_a$  accepted that there is a significant influence between  $X_4$  (quick ratio) to the condition of Y (financial distress) company or in other words, the ratio can quickly predict the company's financial distress condition.

5) Influence  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) in predicting condition of Y (financial distress) company. The results of multiple correlation analysis obtained by the value of R correlation of 0.993 means that between  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio),  $X_4$  (quick ratio), ie Net Income to Sales, Current Liabilities to Total Assets, Current Asset to Current Liabilities and Current Assets-inventory to Current Liabilities jointly to Y or the company's financial distress condition has a strong and positive relationship simultaneously in predicting the condition of financial distress at a manufacturing company listed on the Indonesia Stock Exchange. The result of multiple regression analysis  $\hat{Y} = -5,543 + -1,060 X_1 + 3,503 X_2 + 4,276 X_3 + -0,676 X_4$ . From that equation, the constant of -5.543 states that if the variable  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) are considered constant, then the average variable Y (financial distress) Altman Zscore of the company is -5,543. Altman Zscores will rise if the variables  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  are improved. The result of  $F_{test}$  double correlation significance test is  $F_{count}$  value of 40.692 with significance value  $0.000 < 0,05$  then  $H_0$  is rejected means there is a significant relationship between  $X_1$  (profit margin ratio) Net Income to Sales,  $X_2$  (leverage ratio) Current Liabilities to

Total Asset,  $X_3$  (current ratio) Current Asset to Current Liabilities, and  $X_4$  (Quick ratio) Current Assets-inventory to Current Liabilities simultaneously or together in predicting Y (financial distress) in manufacturing industry companies listed on Indonesia Stock Exchange. Based on the result of simultaneous significance test with test level of 5% indicates that  $F_{count} > F_{table}$ . The magnitude of  $F_{count}$  40,692 while  $F_{table}$  2,922. Thus it can be concluded that the regression model can be used to predict the condition of financial distress or it can be said that the variable  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) condition of Y (financial distress) company. The coefficient of determination provides information that financial ratios which include  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) influence simultaneously or together in predicting condition of Y (financial distress) manufacturing companies listed on the Indonesia Stock Exchange of 98.6% while the rest of 1.4% influenced by other factors. This means that together information based on profit margin ratio, leverage ratio, current ratio and quick ratio can be used to predict the company's financial distress condition.

## V. CONCLUSIONS

1. Based on the analysis of research data in 2008 that has been done, it can be concluded as follows. Thus it can be concluded that the regression model can be used to predict the condition of financial distress or it can be said that the variable  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) condition of Y (financial distress) company. The coefficient of determination provides information that financial ratios which include  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) influence simultaneously or together in predicting condition of Y (financial distress) manufacturing companies listed on the Indonesia Stock Exchange of 98.6% while the rest of 1.4% influenced by other factors.

2. Based on the analysis of research data in 2009 that has been done, it can be concluded as follows: Thus it can be concluded that the regression model can be used to predict the condition of financial distress or can be said that the variable  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) together have a significant effect on Y condition (financial distress) company. The coefficient of determination provides information that financial ratios which include  $X_1$  (profit margin ratio),  $X_2$  (leverage ratio),  $X_3$  (current ratio) and  $X_4$  (quick ratio) influence simultaneously or together in predicting condition of Y (financial distress) manufacturing companies listed on the Indonesia Stock Exchange of 33.8% while the remaining 66.2% is influenced by other factors.

### A. Suggestions

Researchers realize that this study is still far from perfection. For that researchers give suggestions as follows:



1) By knowing the symptoms of financial distress early on will help to avoid the company from the occurrence of bankruptcy. For the company to always be alert with the symptoms of financial distress, so it can improve the company's policies and management that ultimately able to avoid the occurrence of bankruptcy in the company.

2) For further research that will do the same research, it is better to make predictions also include more variables into the model, such as economic conditions that can be measured, among others, using inflation rate, loan interest rate and general consumer price index.

3) Further research should also conduct research on industrial groups outside manufacturing so that generalization capability can be improved.

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