FACTORS THAT INFLUENCE PROFITABILITY

(CASE IN MANUFACTURING COMPANIES LISTED IN THE INDONESIA STOCK EXCHANGE FROM 2014-2017)

By:

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THESIS

Presented as Partial Fulfilment of the Requirements

to Obtain the Bachelor's Degree in Accounting

in the Department of Economics

International Program

Universitas Islam Indonesia

Yogyakarta

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ABSTRACT

Every company usually have the same goal at the beginning a company was built, which is to be able to develop and capability to do business. One way is to manage the financial performance of the company. The analysis of financial statements by the company can determine the level of profitability or profitability ratio, which is to show the company's ability to generate profits for a certain period. This research was conducted to find out factors that influence profitability proxied with return on equity using 123 manufacturing companies that have been listed on Indonesia stock exchange from 2014 – 2017 as a population and with purposive sampling, the total sample used to analyze are 69 companies.

The statistical methods used in this research are descriptive statistics, correlation analysis, multiple regression analysis, and interaction analysis. The result of this research shows that liquidity ratio proxied with current ratio and leverage ratio proxied with debt to equity ratio has a negative effect on profitability, while rentability ratio proxied with gross profit margin has a positive effect on profitability. Simultaneously, all independent variables have a positive effect on profitability. Another result is there is an interaction between liquidity ratio and rentability ratio that have an effect on profitability.

Keywords: Financial Statements, Profitability, Return on Equity, Current Ratio, Gross Profit Margin, Debt to Equity Ratio

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Nanjing, 29th of May 2019

Farhan Widiardana

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CHAPTER I

INTRODUCTION

1.1. BACKGROUND OF THE RESEARCH

At the beginning of the year 2014, the Indonesian government began to pay attention to the industrial sector to improve the Indonesian economy. One of the industries that gets more attention is the manufacturing industry, it is because the government wants to develop a national resource-based manufacturing industry. According to an article in presidenri.go.id, the government's vision and missions named Nawacita gives a commitment about the development of natural resource-based manufacturing industries, reduction of the import content in the manufacturing industry, and promotion of national manufacturing products. The manufacturing industry increasingly plays a role in the national economy as a foundation for job creation, creating added value, mastering the domestic market, supporting sustainable development, and generating foreign exchange.

Every company usually have the same goal at the beginning a company was built, which is to be able to develop and capability to do business. One way is to manage the financial performance of the company in such a way so that the company is not only prevented from bankruptcy but also allows the company to get a bigger profit. Many companies were going bankrupts as they cannot manage their financial problems well. Meanwhile, if the company can manage it well, they will remain to exist in their business.

The company's financial performance can be interpreted as a future prospect and a good growth potential for the company. It is used to measure the company's

overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Information from the financial performance is needed to assess potential changes in a company's economic resources that may be controlled in the future and can be used to predict the production capacity of existing resources. In determining the success of the company's financial performance, it is necessary to analyze the financial statements that have been analyzed by the company leader or management to be used as a tool for further decision making in the future.

The purpose of the analysis of financial statements by the company is to gain more information contained in a financial report. If the information has been presented correctly, then the information is very useful for companies in making decisions and can be used to assess the success of the company's financial performance. The analysis of financial statements by the company can also determine the level of profitability or profitability ratio, which is to show the company's ability to generate profits for a certain period. S Munawir (2000: 165) states that profitability is the ability of companies to earn profits with all capital used in a given period, to find out whether or not a company has used its capital productively and efficiently. According to Hanafi and Halim (2012: 81) profitability is a ratio that aims to measure a company's ability to generate profits (profitability) at the level of sales, assets and certain share capital. This is very important so that resources are used optimally in the face of environmental changes. A profitability ratio is one major factor that makes the judgment for the company end well each time the company closes its book.

There are two parties who will judge whether the company has achieved its goal or not. They are inside parties which are the company itself and outside party which are investor and creditor, the government often take place to judge from their perspective of whether or not the company harms the state. In Indonesia, the government is trying to make the Indonesian people willing to help the government improve the country's economy by investing in various sectors of the domestic company. This circumstance makes many companies very careful in providing the company's financial performance so they can continue to convince investors not to make the value of the company's shares go down so that the company avoids bankruptcy. Most investors and creditors themselves are interested in companies that have a high level of profitability.

The company's most popular performance measurement tool between investors and senior managers is the result of shareholder rights named Return on Equity (ROE). The company's profit itself can be measured through the company's ROE. ROE also means a measure to assess how much the rate of return (percentage) of the capital invested in the business concerned. ROE is used to measure the effectiveness of a company in generating profits by utilizing the equity it has. Investors in assessing companies not only see profits generated in just one period but see changes in profits from year to year, because investors prefer companies that are stable in generating profits from year to year. Likewise, from the management side, it also expects high profits every year. Because high profits are considered to show good performance.

Financial ratios can be divided into three general forms that are often used, namely: Liquidity Ratio, Solvency Ratio (Leverage), and Rentability Ratio. Liquidity ratio is a ratio that is used to measure a company's ability to meet short-term financial liabilities in the form of debt - short-term debt, such as the current ratio, quick ratio, and cash ratio. There is also leverage ratio, this ratio is intended to measure to what extent the assets of the company financed by debt this ratio indicates an indication of the level of security of the lenders (banks). The leverage ratio can be calculated by several methods, such as Debt to Equity Ratio and Debt to Asset Ratio. Last, there is rentability ratio that is used to measure a company's ability to earn profits or profits, the profitability of a company to realize a comparison between profits and assets or capital that produces profits. This ratio can be calculated in various ways, some of them are Gross Profit Margin and Net Profit Margin.

The reason for choosing a manufacturing company is because there are a lot of investment activities in manufacturing companies in the company, especially companies that have been listed on the Indonesia Stock Exchange. Competition in investment activities will later have an impact on investors who will be faced with a variety of risks and uncertainties, so investors have difficulty predicting it. The success of a company's financial performance can be seen from the ROE owned by the company. According to an article in kemenperin.go.id the purchasing manager index (PMI) report released by Nikkei and Markit, Indonesia's manufacturing PMI rose from 49.9 in January to 51.4 in February 2018. The PMI above 50 was again achieved, after previously in December 2017 and January 2018 are below the

neutral point. A PMI above 50 indicates manufacturing is expanding. In fact, the achievement of Indonesia's manufacturing PMI in February 2018 also shows the highest position in operational conditions since June 2016 or 20 months ago. The PMI is an extremely important indicator for investors looking for clues about economic growth. Many investors use the PMI as a leading indicator for Gross Domestic Product (GDP) growth or decline.

Therefore, reflecting on the many explanations above, this study aims to study the factors that influence the profitability of companies with the title **"Factors that Influence Profitability (Case in Manufacturing Companies Listed in the Indonesia Stock Exchange)"**.

1.2. PROBLEM FORMULATION

Based on the background of the research above, the following are the problems that researchers want to complete:

1. Does the current ratio have an effect to return on equity? How much the significant level?
2. Does gross profit margin have an effect to return on equity? How much the significant level?
3. Does the debt to equity ratio have an effect to return on equity? How much the significant level?
4. Do all the independent variables have an effect to return on equity at the same time? How much the significant level?
5. Is there an interaction between current ratio and gross profit margin?

1.3. RESEARCH OBJECTIVES

In accordance with the research problem mentioned before, the general objective of this research is:

1. Analyze the effect and significant level of current ratio to return on equity, especially in manufacturing companies that have been listed in the Indonesia stock exchange.
2. Analyze the effect and significant level of gross profit margin to return on equity, especially in manufacturing companies that have been listed in the Indonesia stock exchange.
3. Analyze the effect and significant level of debt to equity ratio to return on equity, especially in manufacturing companies that have been listed in the Indonesia stock exchange.
4. Analyze the effect and significant level of all the independent variables to return on equity at the same time, especially in manufacturing companies that have been listed in the Indonesia stock exchange.
5. Analyze the effect of the interaction between current ratio and gross profit margin to return on equity, especially in manufacturing companies that have been listed in the Indonesia stock exchange..

1.4. RESEARCH CONTRIBUTIONS

This research was conducted to provide some information related to studies for several related users:

1. Academicians and Researchers

It is hoped that this research can provide more comprehensive understanding related to the factors that influence profitability and are expected to be used as a reference for future research to provide ongoing updates or developments based on the results obtained.

2. Company Management

This research is expected to be used as useful information and provide relevant information in order to optimize financial decisions for their profitability.

3. Investors and the users of the financial statements

This study is intended to provide information about the factors that affect the profitability of companies in terms of equity where investors will give more attention to be considered before they choose the company they want to invest in.

1.5. FRAME OF WRITING

The systematic of writing consists of 5 chapters and each chapter has a different explanation, the five chapters are as follows:

CHAPTER I: INTRODUCTION

The first chapter of this research explains the general description of the study that consists of a background of research, problem formulation, research objective, research contribution, and system of writing.

CHAPTER II: LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The second chapter provides an understanding of theories that have a relationship to the variables used in this study. Review previous research as a

reference and become a comparison or evaluation of the results of the research obtained. Finally, the hypothesis proposed is based on the data that has been obtained, starting with the description of the research in general to review previous studies.

CHAPTER III: RESEARCH METHOD

This chapter explains the variables in research from various sides, starting from sampling and data, understanding and operational research variables, to the research model used.

CHAPTER IV: EMPIRICAL ANALYSIS

The fourth chapter contains the results of research in the form of data analysis and discussion that explains the effect of liquidity ratios, profitability, and leverage (solvability) on the profitability of manufacturing companies that have been listed on the Indonesia stock exchange in the period 2014 to 2017 through panel data regression, and continued with the interpretation obtained from the results of this study.

CHAPTER V: CONCLUSION

The last chapter contains conclusions which are answers to the formulation of the problems discussed earlier, and also contains the limitation that researchers encountered in the process of making this research and then given suggestions to the relevant parties.

REFERENCE

ATTACHMENT

CHAPTER II

LITERATURE REVIEW AND HYPOTHESIS

2.1 THEORETICAL REVIEW

2.1.1 Indonesia Stock Exchange

The definition of a Securities Exchange has been defined in Law No. 8 of 1995, concerning the capital market. Securities are securities, namely debt securities, commercial securities, shares, bonds, proof of debt, Participation Units of collective investment contracts, futures contracts for Securities, and any derivatives of Securities. In short Securities are securities that can be used as investments. This is because of the nature of the securities instrument which is the deposit of capital, investors certainly expect the return from the deposited capital.

Each country certainly has its own stock exchange. Indonesia has the Bursa Efek Indonesia (BEI) or also known as IDX (Indonesia Stock Exchange). PT Bursa Efek Indonesia (IDX) is a government institution that acts as an exchange organizer. That is, the Indonesia Stock Exchange has the task of facilitating securities trading in Indonesia. The Indonesia Stock Exchange is an official exchange in Indonesia, so for companies that want to go public in Indonesia, they must go through the IDX. The Indonesia Stock Exchange must also control so that the process of securities transactions that occur takes place fairly and efficiently. There are also roles from the IDX, including:

1. As a Securities Trade Facilitator, this includes

a. Provide all securities trading facilities (facilitators).
b. Make regulations relating to stock exchange activities.
c. Record all securities instruments.
d. Strive for the liquidity of securities investment instruments.
e. Disseminate stock exchange information (transparency).

2. As an Authority that controls the course of transactions, this includes
   a. Monitoring securities transaction activities.
   b. Prevent the practice of improper price manipulation, which is prohibited by law. (Including Insider Trading, etc.).
   c. Freeze trade/suspend for stock issuers that violate the provisions of the stock exchange.
   d. Conduct revocation of securities/delisting, according to applicable rules.

On the official website of the Indonesian Stock Exchange in 2019, there are already a total of 624 registered companies that want to go public in Indonesia from various sectors.

2.1.2 Profitability

Hermanson (1989) defines that profitability is the organizations' ability to generate income and its inability to generate income is a loss. He further asserts that if the income generated is greater than the input cost, that is simply profitability but if the incomes are less than the input cost, it reflects poor performance. Horne and Machowicz (2005) Profitability is the ability to generate profits for a certain period by using assets or capital, both capital as a whole and own capital.

Hifza Malik, (2011), Profitability is one of the most important objectives of financial management since one goal of financial management is to maximize the owners' wealth, and profitability is a very important determinant of performance. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Hence, the ultimate goal of a business entity is to earn profit in order to make sure the sustainability of the business in prevailing market conditions. Pandey (1980) defined profitability as the ability of a business, whereas it interprets the term profit in relation to other elements. It is necessary to examine the determinants of profitability to understand how companies finance their operations.

According to Sugiono & Untung (2016:66), profitability ratio is ratio intended to measure the effectiveness of management that is reflected in return for the investment result through the company's activities or in other words, measuring the company's overall performance and efficiency in the management of liabilities and capital. Meanwhile, according to Kamaludin & Indriani (2012: 45), the profitability ratio shows a description of the effectiveness level of company management in generating profit. This ratio as a measure of whether the owner or shareholder can obtain a reasonable rate of return on their investment. Return on Equity (ROE) is included in the profitability ratio.

2.1.2.1 Return on Equity

Return on Equity (ROE) according to Mardiyanto (2009:196) is: "The ratio used to measure the company's success in generating profits for shareholders".

According to Prastowo, Dwi (2015:82), one of the main reasons operate the company is to generate profit that will be beneficial for shareholders. The success Measures of achievement of this reason is the number of ROE.

Kurnia, Rizka. (2015) ROE analysis is often translated as the rentability of own capital. ROE also means a measure to assess how much the rate of return (percentage) of the capital invested in the business concerned. The company's profit itself can be measured through the company's ROE. ROE is the ratio between profit after tax (EAT) and total equity. The most popular measure of performance of a company between investors and senior managers is the result of shareholder rights is the return on equity (ROE).

Fraser and Ormiston (2017) ROE is a ratio that measures the overall efficiency of the firm in managing its total investment in assets and in generating a return to shareholders. ROE measures the return to common shareholders; this ratio is also calculated as a return on common equity if a firm has preferred stock outstanding.

Horngren & Harrison (2007:174) state that the return on equity ratio shows the relationship between net profits to equity of ordinary shareholder, how much the profit is earned on each $ 1 invested by an ordinary shareholder. According to Lestari and Sugiharto (2007: 196), ROE is a ratio used to measure the net profit obtained from the management of capital invested by the owner of the company. ROE is measured by the comparison between net income and total capital. The

higher ROE number indicates that shareholders have a higher return on investment. They also stated that good rate return of Return on Equity if >12%.

2.1.2.2 Current Ratio

Current Ratio (CR) is the most commonly used measure to determine the ability to meet short-term obligations. Low CR is usually considered to indicate a problem in liquidity. Conversely, a company whose CR is too high is also not good, because it shows the number of unemployed funds which in turn can reduce the company's profitability (Sawir, 2005).

According to Ang (1997), the current ratio is one of the liquidity ratios, measures the company's ability to meet its short-term obligation. The higher current ratio means the less failure risk of the company to meet its short-term obligation. As a result, the risks that will be borne by the shareholders are also getting smaller.

2.1.2.3 Gross Profit Margin

The gross profit ratio is also known as gross profit margin and this ratio expresses the relationship of gross profit to net sales (cash and credit) in terms of percentage. This ratio is calculated to find the profitability of the business. A high gross profit ratio is a symbol of good management. The main objective of computing this ratio is to determine the efficiency with which production and/or purchase operations and selling operations are carried on (Tulsian, 2014).

2.1.2.4 Debt to Equity Ratio

Sawir (2005) stated that the debt to equity ratio (DER) describes the ratio of debt to equity in corporate funding and shows the ability of the company's own capital to fulfill all its obligations. The lower this ratio, the higher the level of corporate funding provided by shareholders. According to Peterson (1999), debt to equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. Gitman (2009) stated that the more debt a firm uses in relation to its total assets, the greater its risk of being unable to meet its contractual debt payments.

According to Kashmir (2012:157), DER is a ratio used to assess the debt to equity by comparing the entire debt, including current liabilities with the overall of equity. Regarding Debt to Equity Ratio, Joel G. Siegel and Jae K. Shim in Fahmi, Irham (2013:128) defines as a measure used in analyzing financial statement to show the amount of collateral available to the creditor. According to Harjito & Martono (2014: 59), the ratio of total debt to own capital is the comparison of total debt had by the company's own capital (equity).

2.2 PRIOR RESEARCH

In an empirical perspective related to the factors that influence Return On equity, Riza Kurnia's research (2015), shows that Net Profit Margin, Debt to Equity Ratio, and Current Ratio significantly influence Return on Equity while Total Asset Turnover has no significant effect on Return on Equity. Fithri and Farida (2012), show that Total Asset Turnover, Debt Ratio, and Current Ratio significantly

influence Return on Equity while Gross Profit Margin does not have a significant effect on Return on Equity. Animah, Elin, and Nina (2009), the results of his research state that the profit margin, Investment Turnover, Equity Multiplier has a significant effect on Return on Equity. Zulfadli (2013), the results of these studies indicate that Debt to Equity Ratio, Debt to Asset Ratio, Net Profit Margin, Gross Profit margin have a significant effect on Return on Equity, while the current ratio does not significantly influence Return on Equity.

From the results of the previous research, it can be seen that the effect of several variables on profitability has different results so that in this study further truths will be available so that the results of the research are expected to reinforce perceptions and strengthen existing theories.

2.3 CONCEPTUAL FRAMEWORK

Basically, this study uses financial ratios as done by previous researchers. This study uses return on equity as the dependent variable and using other financial ratios such as current ratio, gross profit margin, and debt to equity ratio as independent variables. The gross profit margin would be called interaction variables with the current ratio. This research is very much needed by many parties besides the government and management and shareholders. Analysis of equity returns is one of the most commonly used tools or methods in making financial statement analysis. This analysis can show how the company works.

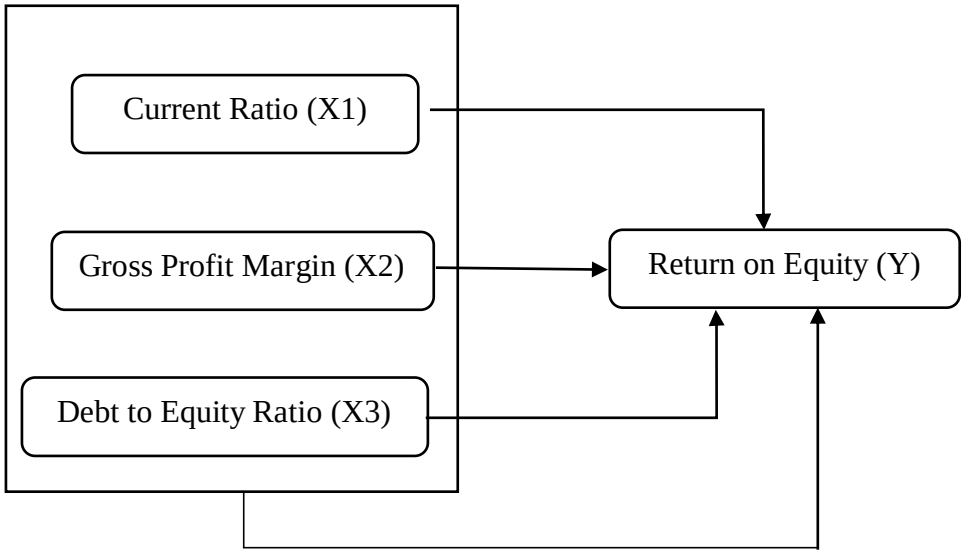

Figure 2.1 Conceptual Framework

The scheme above is a basic concept of research that the processing and the results will be shown in the upcoming chapters. Based on the description above, it can be described a conceptual framework that states that the current ratio, gross profit margin, and debt to equity ratio are factors that influence the profitability of the company which in this study is represented by the ROE ratio.

In addition to the basic concepts of theory, the current ratio and gross profit margin actually influence each other, either negatively or positively. Based on the method of calculation, the meaning of the current ratio is how to use the company's current assets to meet the company's short-term obligations. One of the company's assets that goes into current assets is inventory. In economic terms, the inventory section generally has three forms; raw materials, semi-finished goods, and finished

goods which means they are ready to be used as a medium of exchange. In other words, finished goods are types of inventory that have sufficient liquid levels to enter into current assets where one of the conditions for an asset to be able to enter into current assets can be realized into cash or sold during a normal business cycle within one year.

The gross profit margin in fact also plays within the scope of current assets because based on calculations, the meaning of gross profit margin is the company's ability to earn profits from total sales. Company profits cannot be separated from the inventory of products to be sold. The inventory itself is within the scope of current assets. Based on this explanation, there has been a relationship between the current ratio and the gross profit margin.

Due to the possibility that the current ratio and gross profit margin have interactions between each other and can affect the company's return on equity, researchers will also test the interaction of variables X1 or current ratio, and X2 or gross profit margin. Therefore the theoretical framework of this study is as follows:

Current ratio with return on equity

Changes in the number of current assets or current debt, each of them or both will result in changes in the current ratio, which means that it will change the level of liquidity. Too high liquidity has an adverse effect on earning power because of the existence of idle cash or shows the excess working capital needed, this excess will reduce the opportunity to obtain profits. Thus, it is very possible that the relationship between the current ratio and return on equity is negative.

Gross profit margin with return to equity

The high percentage of gross profit margin owned by the company also increases the company's return on equity. The more efficient the company in using assets to get income, the better profits the company receives will be. Therefore, the relationship between gross profit margin and return on equity, based on logical theory before, is positive.

Debt to equity ratio with return to equity

High debt to equity ratio will affect the level of achievement of return on equity achieved by the company. Companies with growing profits will improve the debt to equity ratio relationship with profitability where profitability increases along with a low debt to equity ratio. Companies with low-profit growth will find it difficult to withdraw funds from outside, to get investment with most of their profits. So companies with low-profit growth will increasingly improve the relationship between debt to equity ratio who oppose negatively and profitability. The higher the debt to equity ratio shows the more companies than outside parties, this is very important to improve the company, increasing the level of interests with outside parties the higher. Then the influence between debt to equity ratio and return on equity is negative.

2.4 HYPOTHESIS DEVELOPMENT

Based on the formulation of the problem, objectives, theoretical review and the framework above, the working hypothesis can be proposed as follows:

H 1: Current ratio has a negative effect to return on equity especially in manufacturing companies that have been listed in the Indonesia stock exchange.

H 2: Gross profit margin has a positive effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange.

H 3: Debt to equity ratio has a negative effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange.

H 4: At the same time, all independent variables have a positive effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange.

H 5: There is an interaction between the current ratio and gross profit margin and have an effect to return on equity in manufacturing companies that have been listed on the Indonesia stock exchange.

CHAPTER III

RESEARCH METHOD

3.1 DATA AND SAMPLE COLLECTION

3.1.1 Data collection method

This research used secondary data taken from the summary of the listed companies' performance in Bursa Efek Indonesia index from 2014 until 2017 (that met criteria). Those data were acquired from the official website of the Indonesia Stock Exchange (www.idx.co.id).

3.1.2 Population and sample collection

The population of this research is companies listed in Indonesia Stock Exchange from 2014 until 2017. The selected samples are conducted by purposive sampling method. Purposive sampling is sampling based on the assessment or criteria that qualify in the study. Those are based on certain conditions and considerations where the requirements are fulfilled by those samples supposing to get the representative sample. Meantime, the sample criteria during the fiscal year 2014 until 2017 in this research are described below:

1. Companies in the manufacturing industry which listed in Indonesia Stock Exchange market.
2. Companies which published, annual report, and financial statements.
3. Companies with no minus ratio.
4. Companies with no big event (acquisition, sale of a subsidiary, merged, etc.)

Based on the criteria above, there are 64 companies as a sample in this research with total data are 162 manufacturing companies from 2014 until 2017.

3.2 VARIABLES DEFINITION

There are two variables in this research which are the independent variable and dependent variable. Independent variables used in this study are the current ratio, gross profit margin and debt to equity ratio. The dependent variable used in this study is the return on equity. Each variable will be explained below:

3.2.1 Independent Variable

According to Cramer and Howitt (2004), Independent variable is the variable that is stable and unaffected by the other variables the researcher is trying to measure. It refers to the condition of an experiment is systematically manipulated by the investigator. It is presumed cause.

a) Current Ratio

The current ratio is used to measure the company's ability to pay its short-term liabilities using current assets.

$$Current\ Ratio = \frac{Current\ assets}{Current\ liabilities}$$

b) Gross Profit Margin

Gross profit margin is a comparison between net sales minus the cost of sales with the level of sales, this ratio describes the gross profit that can be achieved from the number of sales.

$$Gross\ Profit\ Margin = \frac{Net\ sales - COGS}{Net\ sales}$$

c) Debt to Equity Ratio

Debt to Equity Ratio itself is a comparison between debt and equity in corporate funding and shows the ability of its own capital, the company to fulfill all its obligations.

$$Debt\ to\ Equity\ Ratio = \frac{Total\ liabilities}{Stockholders'equity}$$

3.2.2 Dependent Variable

Cramer and Howitt (2004) also conclude that the dependent variable is the variable that depends on other factors that are measured. These are expected to change as a result of experimental manipulation of the independent variable or variables. It is a presumed effect.

a) Return On Equity

ROE is considered a measure of how effectively management is using a company's assets to create profits. ROE is expressed as a percentage and can be calculated for any company if net income and equity are both positive numbers. Net income is calculated before dividends paid to common shareholders and after dividends to preferred shareholders and interest to lenders.

$$Return\ on\ Equity = \frac{Net\ income}{Stockholders'\ equity}$$

3.3 RESEARCH MODEL

These following equations is a research model formed based on several definitions and explanations in the previous sub-chapter:

The first equation is using multiple regression analysis to find out the relationship between two variables or more. The purpose of the relationship here is the dependence of the dependent variable with one or more independent variables. In addition to knowing the relationship between variables, regression analysis also shows the direction of the relationship between the dependent variable and the independent variable. The regression model used to test the effect of independent variables on the dependent variable in this study (hypothesis 1-4), is:

$$\mathbf{Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e}$$

The other equation is using interaction test or moderated regression analysis, which is the application of multiple linear regression where the equation contains elements of interaction (multiplying two/more independent variables). The regression model used to test the effect of multiplying two/more independent variables on the dependent variable in this study (hypothesis 5), is:

$$\mathbf{Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X1X2 + e}$$

Which describes:

Y= Return on Equity (ROE)

α= Constanta

$\boldsymbol{\beta 1 - \beta 3}$ = Coefficient of Regression

X1 = Current Ratio

X2 = Gross Profit Margin

X3 = Debt to Equity Ratio (DER)

X1X2= Interaction between Current Ratio and Gross Profit Margin

e = Residual error

CHAPTER IV

EMPIRICAL ANALYSIS

4.1 DESCRIPTIVE STATISTICS

The function of descriptive statistics is to provide an overview or description of data seen from the minimum value, maximum value, average value, and standard deviation. The results of the descriptive analysis can be seen in Table 4.1.

Table 4.1 **Descriptive Statistics**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Return On Equity	276	.06	143.53	4383.11	15.8808	21.57611
Current Ratio	276	18.43	1516.46	73848.39	267.5666	229.60108
Gross Profit Margin	276	-11.12	73.88	7098.14	25.7179	15.58077
Debt to Equity Ratio	276	-7.72	181.00	409.26	1.4828	10.91224
Valid N (listwise)	276					

Table 4.1 shows the number of samples used in this study is 69 and N = 276 because the observation is in 4 years. From these 276 data of ROE, the minimum value is 0.06 with a maximum value of 143.53. The mean value obtained is 15.8808 with a standard deviation of 21.57611. A standard deviation that has a larger value than the mean value indicates that the ROE variable data used in this study are heterogeneous or diverse. The mean value of ROE is closer to the minimum value of ROE which indicates that the average ROE value owned by the manufacturing companies in Indonesia Stock Exchange from 2014 until 2017 is low.

From 276 data of Current Ratio, the minimum value is 18.43 with a maximum value of 1516.46. The mean value obtained is 267.5666 with a standard deviation of 229.60108. A standard deviation that has a smaller value than the mean value indicates that the variable data of the current ratio in this study is not heterogeneous or not diverse. The mean value of the current ratio is closer to the minimum value of current ratio which indicates that the average current ratio value owned by the manufacturing companies in Indonesia Stock Exchange during 2014 until 2107 is low.

From 276 data of Gross Profit Margin, the minimum value is -11.12 with a maximum value of 73.88. These data indicate the company has got a major loss. The mean value obtained is 25.7179 with the standard deviation of 15.58077. A standard deviation that has a smaller value than the mean value indicates that the variable data of the current ratio in this study is not heterogeneous or not diverse. The mean value of gross profit margin is closer to the minimum value of gross profit margin, it indicates that the average gross profit margin value owned by the manufacturing companies in Indonesia Stock Exchange during 2014 until 2107 is low.

From 276 data of Debt to Equity Ratio, the minimum value is -7.72 with a maximum level of 181.00. The mean value obtained is 1.4828 with the standard deviation of 10.91224. A standard deviation that has a larger value than the mean value indicates that the debt to equity ratio variable data used in this study is heterogeneous or diverse. The mean value of debt to equity ratio is closer to the minimum value of gross profit margin, it indicates that the average debt to equity

ratio value owned by the manufacturing companies in Indonesia Stock Exchange during 2014 until 2107 is low.

4.2 CORRELATION ANALYSIS

Correlation analysis is a study of the degree of closeness of relationships between variables. A positive correlation indicates the extent to which these variables increase or decrease in parallel. Conversely, negative correlation indicates the extent to which one variable increases while the other variable decreases. The results of the correlation analysis can be seen in the table below:

***Table 4.2* Correlations**

	Y	X1	X2	X3
Y	1	-.098	.364**	-.036
X1	-.098	1	.235**	-.072
X2	.364**	.235**	1	-.056
X3	-.036	-.072	-.056	1

**. Correlation is significant at the 0.01 level (2-tailed).

In Table 4.2, the maximum value generated in crosses between independent variables is found in the cross between X1 with X2 of 0.235, not exceeding the value of 0.8, therefore, in this research, there is no serious problem of multi-collinearity.

4.3 CLASSIC ASSUMPTION TEST

The classic Assumption Test is an analysis carried out to assess whether in a regression model there are classical assumption problems. According to Gauss-Markov (n.d) cited in Nursiyono (2015), regression methods can be used as unbiased estimation tools. Compilation of criteria, which is called the best estimator, liner, and is not biased (BLUE). Classical tests that will be used in this study are

the normality test, multi-collinearity test, autocorrelation test, and heteroscedasticity test.

4.3.1 Normality Test

Normality test is one of the analysis tests which aims to test whether the data used in the study is normally distributed or not. In the normality test in this study, researchers will use the Kolmogorov-Smirnov (K-S) test method. The basis for decision making in the K-S normality test is as follows:

a) If the significance value (Sig.) is greater than 0.05 then the research data is normally distributed.
b) Conversely, if the significance value (Sig.) is smaller than 0.05 then the research data is not normally distributed.

Furthermore, the table below will show the results of the normality test using the Kolmogorov-Smirnov (K-S) test method:

Table 4.3 **One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		276
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	19.67618867
Most Extreme Differences	Absolute	.195
	Positive	.195
	Negative	-.152
Test Statistic		.195
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

From Table 4.3 above shows that Kolmogorov-Smirnov value is 0.195 with the significance value of 0.000. It indicates that the data has not normally distributed where the criteria of normal data are if the significance value is more than 0.05 and the significance value in the table X above shown it not fulfill the criteria of data which normally distributed. Therefore it can be concluded that the regression model is not normally distributed. The reason could be because there is too much data is used, not to mention the data used for research is data panel. Too much data in using data panel increases the probability of data not being normally distributed. The researcher already tried to eliminate extreme data with a purposive sampling technique and transformed the data in order to make the data normal but still did not produce significant changes.

4.3.2 Multi-collinearity Test

The purpose of the multi-collinearity test in research is to test whether there is a correlation (strong relationship) between independent variables in the regression model. The basis of decision making in the multi-collinearity test is as follows:

a) Based on tolerance value
    a. If the tolerance value is greater than 0.10, it means that there is no multi-collinearity in the regression model.
    b. If the tolerance value is smaller than 0.10, it means that there is multi-collinearity in the regression model.
b) Based on VIF values (Variance Inflation Factor)

a. If the VIF value is less than 10.00, it means that there is no multi-collinearity in the regression model.

b. If the VIF value is more than 10.00, it means that there is multi-collinearity in the regression model.

Note that the two bases for decision making in the multi-collinearity test above will produce the same conclusions (not contradictory). Furthermore, the table below will show the results of the multi-collinearity test:

Table 4.4 **Multi-Collinearity Test**

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	.941	1.062
	X2	.943	1.060
	X3	.993	1.007

a. Dependent Variable: Y

Table 4.4 shows that tolerance value from these three independent variables used in this study are all more than 0.1 with the VIF value from these three independent variables are all smaller than 10. It indicates that Multi-collinearity is not used in the regression model.

4.3.3 Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation between confounding errors in period t with interfering errors in period t-1. In this study, researchers will use the autocorrelation test with Durbin-Watson (DW test). The basis of decision making in the autocorrelation test using Durbin-Watson is as follows:

a) If the value of d (Durbin-Watson) is smaller than dL or greater than (4-dL) then there is autocorrelation.

b) If the value of d (Durbin-Watson) lies between dU and (4-dU) then there is no autocorrelation.

c) If the value of d (Durbin-Watson) lies between dL and dU or between (4-dU) and (4-dL) then it does not produce a definite conclusion.

Furthermore, the table below will show the results of the autocorrelation test using the Durbin-Watson method:

Table 4.5 **Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.410[a]	.168	.159	19.78440	2.089

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

280. 3. 1.78970 1.81846

Table 4.5 shows that the results of the autocorrelation test using Durbin-Watson are 2,089, greater than dU with a value of 1.81846 and less than 4-dU or 4-1.81846 or 2.18154. Then as the basis for decision making in the autocorrelation test above, it can be concluded that there are no problems or symptoms of autocorrelation. Thus the analysis for the research hypothesis test can be done.

4.3.4 Heteroscedasticity Test

Heteroscedasticity test is part of the classic assumption test in regression analysis which aims to test whether there is an inequality of variance from residual values one observation to another observation in the regression model. If the

variance of the residual value of one observation to another observation is permanent, it is called homoscedasticity, but if the variance of the residual value is one observation to another observation, then it is called heteroscedasticity.

One way to detect the presence or absence of heteroscedasticity symptoms in a regression model is to do a scatterplot. The basis of decision making that does not occur the symptoms of heteroscedasticity using the scatterplot method is as follows:

a) Data points spread above and below or around the number 0.
b) The spread of data points does not only collect on the top or bottom side.
c) The spread of data points should not form a wavy pattern widening and then narrow and re-widen.
d) The spread of data points does not make a pattern.

Furthermore, the following figure is the results of heteroscedasticity test in the study using the scatterplot method:

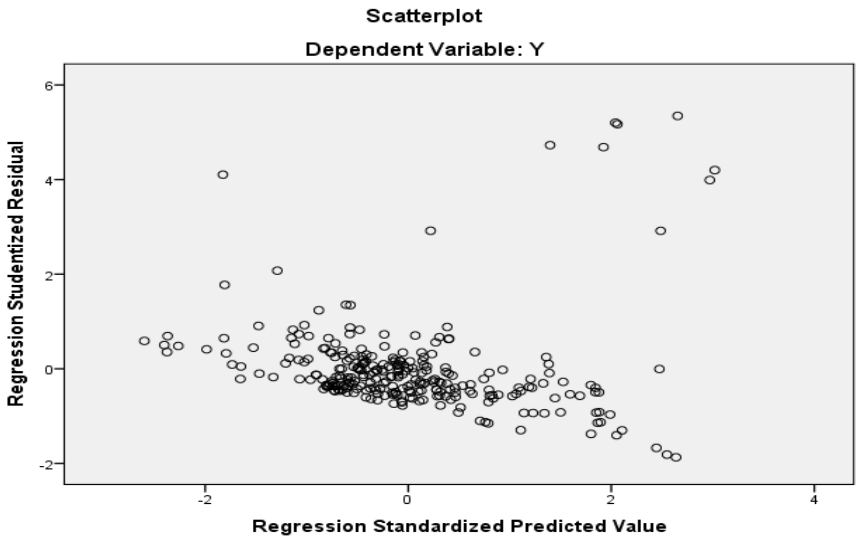

Figure 4.2

Based on figure 4.1 output using the scatterplot method mentioned above, it shows that:

a) Data points spread above and below or around the number 0.
b) The spread of data points does not only collect on the top or bottom side.
c) The spread of data points should not form a wavy pattern widening and then narrow and re-widen.
d) The spread of data points does not make a pattern.

Thus it can be said that in the regression model of this study, there were no symptoms of heteroscedasticity.

4.4 MULTIPLE REGRESSION ANALYSIS

Regression analysis is a research hypothesis analysis method to test whether there is influence between one variable and another variable expressed in the form of a mathematical equation (regression). Multiple regression analysis serves to find the effect of two or more independent variables or variable X on the dependent variable or variable Y. The table below will then show the results of multiple regression analysis:

Table 4.6 **Multiple Regression Analysis**

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.343	2.513		2.524	.012
	X1	-.018	.005	-.195	-3.428	.001
	X2	.565	.079	.408	7.166	.000

X3	-.053	.110	-.027	-.486	.628

a. Dependent Variable: Y

This research's model of the regression equation is using multiple linear regression. The equation as follows:

$$\mathbf{Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e}$$

Table 4.6 shows that the result of multiple regression analysis can be implicated with the formula above as follows:

ROE = 6.343 – 0.018 (Current Ratio) + 0.585 (Gross Profit Margin) – 0.053 (Debt to Equity Ratio) + e

From the regression model, the constant value is 6.343 has a meaning that if the value of all independent variables is 0, the value of ROE stays as big as 6.343.

The coefficients regression value of the current ratio is -0.018 which means if the current ratio value increase for 1 percent, ROE value will decrease 0.018 percent under the consideration of other independent variables are constant.

The coefficients regression value of gross profit margin is 0.585 which means if the gross profit margin value increase for 1 percent, ROE value will increase 0.585 percent under the consideration of other independent variables are constant.

The coefficients regression value of debt to equity ratio is -0.053 which means if the debt to equity ratio value increase for 1 percent, ROE value will decrease 0.053 percent under the consideration of other independent variables are constant.

4.5 HYPOTHESIS TESTING

4.5.1 F Test

The F test is a test to see how the effect of all independent variables together on the dependent variable. The test can also be used to test whether the regression model is made significant or non-significant. The following are the results of the ANOVA test or F test:

Table 4.7 **Simultaneous Test (F Test)**

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21553.465	3	7184.488	18.355	.000[b]
	Residual	106466.910	272	391.422		
	Total	128020.376	275			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X2, X1

Table 4.7 shows that if the significance value is less than 0.05 shows that all of the independent variables are simultaneously influence the dependent variable. In this case, the significance value is 0.000, less than 0.05. It indicates that the current ratio, gross profit margin, and debt to equity ratio simultaneously influence the return on equity.

4.5.2 T Test

The T-test is known as a partial test, which is to test how the influence of each independent variable individually on the dependent variable. According to Ghozali (2011: 98), the statistical test basically shows how far the influence of one

independent variable individually in explaining the variation of the dependent variable. The researcher uses t-statistics with decision-making criteria to test the hypothesis. The independent variable has a partial effect on the dependent variable if the probability of significantly less or equal with 5% or 0.05.

The results of the T-test presented in Table 4.6 explain several hypotheses, which in this study examine the effect of the current ratio, gross profit margin, and debt to equity ratio on return on equity. From the explanations and tables presented above, the three hypotheses are explained as follows:

Hypothesis 1

Based on the results presented in Table 4.6, the X1 variable (current ratio) has a B value of -0.018. Therefore, the first hypothesis which states that the current ratio has a negative influence on return on equity is accepted.

Hypothesis 2

Based on the results presented in Table 4.6, the X2 variable (gross profit margin) has a B value of 0.585. Therefore, the second hypothesis which states that gross profit margin has a positive influence on return on equity is accepted.

Hypothesis 3

Based on the results presented in Table 4.6, the X3 variable (debt to equity ratio) has a B value of -0.053. Therefore, the third hypothesis which states that the debt to equity ratio has a negative influence on return on equity is accepted.

4.5.3 Coefficient Determination (R^2)

R squared (R^2) coefficient value can be used to predict how much the influence of the independent variables on the dependent variable provided that the results of the F test in the regression analysis are of significant value. According to Ghozali (2005: 83) "The coefficient of determination (R^2) essentially measures how far the model's ability to explain the variation of the dependent variable." The R^2 coefficient has zero to one interval ($0 \leq R^2 \leq 1$). From here it will be known how much the independent variable will be able to explain the dependent variable, while the rest is explained by other reasons outside the model

Table 4.8 **Coefficient Determination Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410[a]	.168	.159	19.78440

a. Predictors: (Constant), X3, X2, X1

Based on the result showed from table X, the value of R square (R^2) is 0.168 or 16.80%. The intended value of 16.80% of return on equity is influenced by the current ratio, gross profit margin, and debt to equity ratio. Meanwhile, the other 83.20% return on equity is influenced by other factors outside the model. From the explanation, the fourth hypothesis which stated that at the same time, all independent variables have a positive effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange is accepted.

4.5.4 Interaction Test

Interaction Test here is given to show whether there is an interaction between two or more variable. In this research, interaction test is held to show whether there is an interaction between variable X1 which represents by current ratio and variable X2 which represents by gross profit margin or not when influence company's return on equity. In other words, this test is a way to find out if the current ratio and gross profit margin can work together to influence the return on equity.

Table 4.9 **Coefficients[a]**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.131	3.398		-.333	.739
	X1	.013	.011	.140	1.158	.248
	X2	.851	.120	.615	7.091	.000
	X1X2	-.001	.000	-.463	-3.106	.002

a. Dependent Variable: Y

This research's model of the regression equation is using the Interaction test or moderated regression analysis. The equation as follows:

$$\mathbf{Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X1X2 + e}$$

Table 4.9 shows that the result of moderated regression analysis can be implicated with the formula above as follows:

ROE = -1.131 + 0.013 (Current Ratio) + 0.851 (Gross Profit Margin) – 0.001 (Current Ratio * Gross Profit Margin) + e

From the regression model, the coefficients regression value of current ratio × gross profit margin is 0.001 which means if the current ratio value increase for 1 percent, ROE value will also increase by 0.001 percent under the consideration of other independent variables are constant.

Based on the results presented in Table 4.9, the X1X2 variable (current ratio × gross profit margin) has a significance value of 0.002. This value is smaller than the minimum significance value described previously, which is 0.05 or 0.001 <0.05. Therefore, the fifth hypothesis which stated there is an interaction between the current ratio and has an effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange is accepted.

4.6 ANALYSIS DISCUSSION

From the results of the F test, it is concluded that the current ratio, gross profit margin, and debt ratio simultaneously have a significant effect on profitability. The test results of the coefficient of determination (R^2) is 16.80%, which means that the return on equity variable can be explained by the variables current ratio, gross profit margin, and debt to equity ratio is only 16.80% while the remaining 83.20% is explained by other factors which are not included in the regression model.

Together with the table presented below the researcher will explain the results of the partial test of each variable. The table is as follows:

Table 4.10 **Result Summary**

No	Hypothesis	B Coefficient	P Value	Result
1	Current ratio has a negative effect to return on equity	-0.018	0.001	Accepted
2	Gross profit margin has a positive effect to return on equity	0.565	0.000	Accepted
3	Debt to equity ratio has a negative effect to return on equity	-0.053	0.628	Accepted
5	There is an interaction between current ratio and gross profit margin that have an effect to return on equity	-0.001	0.002	Accepted

No	Hypothesis	R Square (%)	Result
4	At the same time, all independent variables have a positive effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange	16.80	Accepted

1) The influence of current ratio on return on equity

The current ratio is one of the liquidity ratios, measures the company's ability to meet its short-term obligation. The higher current ratio means the less failure risk of the company to meet its short-term obligation. As a result, the risks that will be borne by the shareholders are also getting smaller. The results of the study state that the liquidity ratio which is proxied by the current ratio has a significant negative effect on return on equity, the purpose of this result is that every current ratio increases, return on equity will actually decrease.

From Table 4.1, it can be seen that the current ratio that represents the liquidity ratio has an average value of 267.5666. This value indicates that manufacturing companies listed on the Indonesia stock exchange in the period 2014 to 2017 can be said to have good financial resources to pay off their short-term obligations.

In addition, it can be seen from the last table that the coefficient of the current ratio as liquidity is -0.018 with a significance level that has been observed at 0.001. These values indicate that liquidity has a negative influence but is significant for profitability which has been represented by return on equity, especially in manufacturing companies that have been listed on the Indonesia stock exchange. This result is supported by research by Riza Kurnia (2015); Fithri and Farida (2012).

2) The influence of gross profit margin on return on equity

Gross profit margin is a metric used to assess a company's financial health and business model by revealing the amount of money left over from sales after deducting the cost of goods sold. If the company is able to use its assets efficiently to get income, the better the profit the company will get. The results of the research that has been done show that the gross profit margin has a positive and significant relationship to return on equity. That means the profit from the company increases will make a return on equity also increase.

The results from Table 4.1 show that the minimum value obtained by manufacturing companies that have been listed on the Indonesia stock exchange has a value of -11.12, a maximum value of 73.88 and an average value of 25.72.

The average value that still tends to be closer to the minimum value implies that the gross profit value held by manufacturing companies that have been listed on the Indonesia stock exchange still tends to be small, indicating that these companies have not been able to use their assets efficiently to profit.

The results of the study state that the gross profit margin has a coefficient of 0.565 with a significance level that has been broken down as much as 0.000 indicating that the gross profit margin has a positive and significant effect on return on equity which represents profitability in manufacturing companies that have been listed in Indonesia stock exchanges for the period 2014 to 2017. These results are supported by previous studies examined by Zulfadli (2013).

3) The influence of debt to equity ratio on return on equity

Debt to equity ratio is one of the leverage ratios, which reflects the ability of shareholder equity to cover all outstanding debts in the event of a business downturn. The results showed that the debt to equity ratio has a negative effect but is not significant, meaning that if the company's debt to equity ratio increases it will reduce the company's return on equity even though the changes are not very meaningful.

Table 4.1 shows that the debt to equity ratio variable has a minimum value of -7.72, a maximum value of 181.00, and an average value of 1.48. This means that the average manufacturing company that has been listed on the Indonesia stock exchange in the span of 2014 to 2017 is arguably not too aggressive in financing its growth with debt because the average value of 1.48 tends to be more towards the minimum value.

Table 4.6 shows that the coefficient of the debt to equity ratio variable is -0.053 with a significance level that has been observed at 0.628 which indicates that the leverage ratio proxied by the debt to equity ratio has a negative but not significant effect on profitability which is proxied by return on equity in manufacturing companies that have been listed in the Indonesia stock exchange for the period 2014 to the period 2107.

4) At the same time, all independent variables have a positive effect to return on equity in manufacturing companies that have been listed in the Indonesia stock exchange

The coefficient of determination or symbolized by R square has a meaning as a contribution of the influence given by the independent variable (X) to the dependent variable (Y). In other words, the R square value is useful for predicting and seeing how much influence the X variable gives simultaneously on the Y variable.

Based on table 4.8, the coefficient of determination (adjusted R Square) shows a value of 0.159 or 15.9% and R Square shows a value of 0.168 or 16.8%, meaning that the independent variable used in this study is current liquidity which is proxied by the current ratio, profitability proxied by gross profit margin, and leverage or solvency that is proxied by the debt to equity ratio represents as much as 16.8% of the dependent variable used in this study, namely profitability which is proxied by return on equity. While 83.2% of the dependent variable itself is influenced by other factors that are not used in the regression model by the researcher.

Based on the results of the study, the value of the F test shows the number 18,355 with a significance level of 0,000. The significance level is still smaller than 0.05, which can be concluded that liquidity, profitability, and leverage (solvency) are simultaneously related to the profitability of the company, especially in manufacturing companies that have been listed on the Indonesia stock exchange in the period 2014 to 2017.

5) There is an interaction between current ratio and gross profit margin that have an effect to return on equity

According to the results from table 4.9, it shows that the current ratio and gross profit margin can make an interaction when they work together. The indication is the signification level that has been observed as much as 0.002 meaning that there is an interaction between current ratio and gross profit margin and it affects the return on equity in manufacturing companies that have been listed on Indonesia stock exchange for the period of 2014 to 2017.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The purpose of this research is to determine the influence of liquidity ratio, profitability ratio, and leverage ratio to profitability on Manufacturing Company listed in Indonesia Stock Exchange during the year 2014 to 2017, in this study the profitability that researcher consider is from the investor's perspective. The samples are secondary data collected by purposive sampling and compiled into panel data. The researcher uses data panel multiple regression analysis and assisted by statistical software to test the determinant of capital structure. The statistical software is SPSS 23 version. Here are the conclusions of the study:

1. Hypothesis 1 stated that liquidity ratio (Current Ratio) has a negative effect on profitability (ROE). Based on the result of the study, the current ratio has a negative significant influence on profitability. It shows for the company, if it is getting bigger, it will decrease the return on equity. Because of these explanations, the company should stabilize current ratio to become optimal so that it can fulfill its obligations which in this case its obligations are a short-term obligation but the current ratio must not be too large because it will affect the return on equity.
2. Hypothesis 2 stated that Gross Profit Margin has a positive effect on profitability (ROE). Based on the result of the study, the gross profit margin has a positive significant influence on profitability. It implied that if the

company intend to increase return on equity, they can make that possible by increasing their gross profit margin.

3. Hypothesis 3 stated that the leverage ratio (Debt to Equity Ratio) has a negative effect on profitability (ROE). Based on the result of the study, the debt to equity ratio has a negative, yet not significant influence on the profitability. It means if the manufacturing company in Indonesia which listed in Indonesia Stock Exchange increase their debt, it will negatively affect the productivity which can lead to their profitability. Although it is not significant, however, listed companies have to think about getting able to use their own capital more than their debt.
4. Hypothesis 4 stated that at the same time, all independent variables have a positive effect to return on equity in manufacturing companies that have been listed in Indonesia stock exchange. Based on the result of the study, it shows that the value of R square is 0.168 or 16.80%. It indicates simultaneously, return on equity of the manufacturing company that has been listed on the Indonesia stock exchange in the year of 2014 until 2017 was influenced by current ratio, gross profit margin, and debt to equity ratio, which means the company's return on equity will only change as much as 16.80% when those three factors whether increase or decrease. However, the effect on the return on equity is positive. Manufacturing companies that have been listed on the Indonesia stock exchange would have to optimize those three factors in order to increase their profitability which represents by return on equity.

5. Hypothesis 5 stated that there is an interaction between the current ratio and gross profit margin that have an effect to return on equity. Based on the result of the study, there is an interaction between the current ratio and gross profit margin. Moreover, the interaction between the current ratio and gross profit margin have an effect to return on equity. If the current ratio gets bigger and tends to contain liquidity tools, it will reduce the amount of inventory. This is because even though inventory is included in the area of current assets, but in terms of liquidity, inventories include current assets with the lowest liquidity. Based on the explanation and analysis, it can be indicated that manufacturing companies in Indonesia are less able to manage their debt properly, so the greater the current ratio, the more the relationship reduces the volume of inventory where inventory is the main element of sales. If it is stretched further, when sales decrease, the company's profits will decrease.

5.2 RESEARCH IMPLICATION

This research was conducted with the aim that it can be useful for various parties in analyzing, making decisions, and carrying out relevant actions related to the factors that influence profitability. So far the profitability referred to by researchers has a relationship with assets, equity, and liability. Therefore, these actions can be prioritized for several parties as follows:

1. Company

   The results of the study indicate that the company, in particular, is in manufacturing which has been registered with the Indonesia stock

exchange in order to pay more attention to profitability and leverage (solvency). This is because the results of the influence of the two variables used in the research on profitability, which is proxied by the return on equity, leave some problems that would otherwise get more attention, would be more profitable for the company.

The company's profitability which is proxied by gross profit margin has a significant positive influence on the profitability of the company. However, manufacturing companies in Indonesia that have been listed with the Indonesia stock exchange still tend to be inefficient in using assets to profit.

No less important is that company management must pay more attention to how to use their debt. The company's leverage or solvency which is proxied by the debt to equity ratio has a negative effect, although not significant. But if companies pay more attention to how they allocate debt efficiently, companies can make a profit even if they use only a few assets with additional debt, which can eventually make unused assets allocated to the company's growth.

2. Investor and creditor

Since the Indonesian government's movement to pay more attention to the manufacturing industry and to encourage investors to invest more in improving the country's economy, investors and creditors are advised to pay attention to the company's profitability because in addition to the company's profitability it can be a major benchmark for how the company uses various

their power effectively and efficiently, the profitability of the company also becomes a benchmark for increasing the wealth of investors and creditors.

3. Researcher

For researchers, this research can be an additional literacy tool to help further research related to this topic, so that further research related to this topic will become richer in information and become more interesting research.

5.3 RESEARCH LIMITATION

The limitations that the researchers encountered in making this study that gave effect to the results are as follows:

1. These results cannot be generalized to all companies listed in the Indonesia stock exchange or all companies in Indonesia because the sample from the study only focused on the manufacturing industry on the Indonesia stock exchange.
2. This research is only focused on analyzing the influence of the current ratio, gross profit margin, and the debt to equity ratio to return on equity as a proxy for company profitability.
3. The duration of the period used for the study is only 4 years (2014-2017) which makes the sample used for research limited.
4. The results showed that the effect of the three variables used in this study was only 16.8% indicating that there were still other factors that could make meaningful changes to the profitability of the company besides the three variables.

5.4 RESEARCH RECOMMENDATION

Based on various conclusions and limitations that have been conveyed in this study, suggestions that can be given by researchers are as follows:

1. For companies, it is expected to improve quality and be more careful in managing the current ratio, gross profit margin, and debt to equity ratio because it has been proven that all three have an influence on profitability (return on equity).
2. Subsequent research needs to expand the sample size that will be used in order to provide a clearer understanding and not only focus on one industry sector.
3. If viewed from the period used in this study, further research can extend the research period to provide more accurate information in the development of the company's finances.
4. Additional variables that affect profitability can strengthen the analysis of future studies in order to provide more accurate results.

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APPENDICES:

Appendix 1

List of IDX – Manufacturing Companies from 2014-2017

no	Sector	Sub Sector	Company Code
1	Basic Industry & Chemicals	Cement	INTP
2			SMBR
3			SMGR
4		Ceramics, Glass, Porcelain	AMFG
5			ARNA
6			TOTO
7		Metal And Allied Product	INAI
8			ISSP
9			JKSW
10			LION
11			LMSH
12			PICO
13			TBMS
14		Chemicals	DPNS
15			EKAD
16			INCI
17			SRSN
18			TPIA
19		Plastics & Packaging	AKPI
20			IGAR
21			IPOL
22			TALF
23			TRST
24		Animal Feed	CPIN
25			JPFA
26		Pulp & Paper	ALDO
27			INKP
28			KDSI
29			TKIM
30	Miscellaneous Industry	Automotive And Components	ASII
31			AUTO
32			BRAM
33			INDS

34			NIPS
35			SMSM
36		Textile, Garment	ARGO
37			INDR
38			RICY
39			SRIL
40			STAR
41			TRIS
42			UNIT
43		Footwear	BATA
44		Cable	JECC
45			KBLI
46			SCCO
47	Consumer Goods Industry	Food And Beverages	ADES
48			DLTA
49			ICBP
50			INDF
51			MLBI
52			MYOR
53			ROTI
54			SKBM
55			SKLT
56			STTP
57			ULTJ
58		Tobacco Manufacturers	GGRR
59			HMSP
60			WIIM
61		Pharmaceuticals	DVLA
62			KAEF
63			KLBF
64			MERK
65			PYFA
66			SIDO
67			TSPC
68		Cosmetics And Household	UNVR
69			TCID

Appendix 2

Data used for regression (after outlier)

Dependent Variable : Profitability, proxied by:

- Return on Equity (ROE)

Independent Variable : Financial Statements, measured by:

- Liquidity Ratio (Current Ratio)
- Rentability Ratio (Gross Profit Margin)
- Leverage Ratio (Debt to Equity Ratio)

1. Dependent Variable Measurement

		Return on Equity ***(Y1)***			
No	Company Code	2014	2015	2016	2017
1	INTP	21.28	18.25	14.81	7.57
2	SMBR	12.08	12.01	8.30	4.30
3	SMGR	22.29	16.49	14.83	6.71
4	AMFG	14.40	10.07	7.24	1.09
5	ARNA	28.68	7.96	9.64	11.87
6	TOTO	23.86	19.12	11.06	16.47
7	INAI	15.13	11.93	13.78	13.93
8	ISSP	6.90	6.23	3.89	0.30
9	JKSW	2.31	5.24	0.66	0.88
10	LION	11.04	10.12	9.00	2.05
11	LMSH	6.38	1.73	5.33	10.00
12	PICO	6.99	6.06	4.83	6.02
13	TBMS	22.04	10.02	24.98	20.77
14	DPNS	6.15	4.09	3.80	2.23
15	EKAD	14.92	16.11	15.32	11.50
16	INCI	8.04	11.01	4.11	6.17
17	SRSN	4.40	4.56	2.75	4.26
18	TPIA	2.10	2.96	29.32	19.12
19	AKPI	3.35	2.50	4.68	1.18
20	IGAR	20.84	16.56	18.54	16.38
21	IPOL	2.65	1.74	4.17	1.30
22	TALF	17.65	9.63	4.01	2.80
23	TRST	1.71	1.29	1.75	1.93
24	CPIN	15.96	14.59	15.72	15.90
25	JPFA	7.27	8.58	23.17	11.31
26	ALDO	13.21	14.09	12.56	12.66
27	INKP	5.24	8.49	7.19	12.84

28	KDSI	11.22	3.03	11.23	14.20
29	TKIM	2.20	0.15	0.82	2.74
30	ASII	18.39	12.34	13.08	14.82
31	AUTO	9.44	3.18	4.59	5.09
32	BRAM	8.89	6.87	11.28	11.32
33	INDS	6.98	0.10	2.40	5.30
34	NIPS	8.71	5.04	7.80	5.02
35	SMSM	36.75	32.03	31.78	30.38
36	ARGO	79.77	34.48	45.12	20.57
37	INDR	1.33	3.41	0.49	0.79
38	RICY	3.81	3.37	3.40	3.85
39	SRIL	21.68	20.11	17.93	18.22
40	STAR	0.07	0.06	0.09	0.12
41	TRIS	11.61	11.38	7.27	3.99
42	UNIT	0.16	0.16	0.35	0.43
43	BATA	16.49	23.67	7.58	9.26
44	JECC	13.92	0.67	28.15	15.23
45	KBLI	7.45	11.23	25.30	20.09
46	SCCO	16.90	17.25	27.91	9.89
47	ADES	10.49	10.00	14.56	9.04
48	DLTA	37.68	22.60	25.14	24.44
49	ICBP	16.83	17.84	19.63	17.43
50	INDF	12.48	9.60	11.99	11.00
51	MLBI	143.53	94.83	119.68	124.15
52	MYOR	9.99	24.07	22.16	22.18
53	ROTI	19.64	22.76	19.39	4.80
54	SKBM	28.03	11.67	6.12	2.53
55	SKLT	10.75	13.20	6.97	7.47
56	STTP	15.10	18.41	14.91	15.60
57	ULTJ	12.51	18.70	20.34	16.91
58	GGRR	16.24	16.98	16.87	18.38
59	HMSP	75.43	32.37	37.34	37.14
60	WIIM	13.14	13.89	10.72	4.15
61	DVLA	8.41	11.08	14.09	14.53
62	KAEF	13.06	13.59	11.96	12.89
63	KLBF	21.61	18.81	18.86	17.66
64	MERK	32.78	30.10	26.40	23.95
65	PYFA	2.75	3.05	4.88	6.55
66	SIDO	15.76	16.84	17.42	18.43
67	TSPC	14.14	12.20	11.77	10.97
68	UNVR	124.78	121.22	135.85	135.40
69	TCID	13.58	31.75	9.09	9.64

2. Independent Variable Measurement

a. Liquidity ratio (Current ratio)

		Current Ratio ***(X1)***			
no	Company Code	2014	2015	2016	2017
1	INTP	493.37	488.66	452.50	370.31
2	SMBR	1299.46	757.27	286.83	168.00
3	SMGR	220.90	159.70	127.25	156.78
4	AMFG	586.44	465.43	201.98	200.95
5	ARNA	160.75	102.07	134.88	162.62
6	TOTO	210.85	240.67	218.99	229.55
7	INAI	108.24	100.35	100.29	99.25
8	ISSP	135.79	128.57	115.94	150.53
9	JKSW	251.77	243.79	191.05	226.22
10	LION	369.47	380.23	355.87	327.14
11	LMSH	556.79	808.89	277.01	428.19
12	PICO	165.85	158.79	167.32	150.55
13	TBMS	79.39	88.73	98.80	104.00
14	DPNS	1222.81	1335.00	1516.46	962.15
15	EKAD	232.96	356.88	488.56	451.92
16	INCI	1286.34	967.73	581.50	510.18
17	SRSN	287.10	216.71	174.26	213.17
18	TPIA	139.45	110.29	152.56	243.37
19	AKPI	113.19	103.06	112.88	104.34
20	IGAR	412.90	196.10	582.20	540.20
21	IPOL	87.32	87.83	95.91	97.40
22	TALF	369.26	437.64	292.29	275.12
23	TRST	123.78	130.85	129.70	122.85
24	CPIN	224.07	210.62	217.28	231.66
25	JPFA	177.15	179.43	212.98	234.59
26	ALDO	132.90	234.44	147.83	144.04
27	INKP	138.11	140.17	159.83	209.28
28	KDSI	136.79	115.66	123.19	118.64
29	TKIM	190.01	143.22	139.45	143.81
30	ASII	132.26	137.93	123.94	122.86
31	AUTO	133.19	132.29	150.51	155.87
32	BRAM	141.56	180.65	189.08	238.89
33	INDS	291.22	223.13	303.27	512.54
34	NIPS	129.39	104.73	121.82	117.37
35	SMSM	211.20	239.38	286.03	373.91

36	ARGO	40.99	29.39	31.35	18.43
37	INDR	108.11	114.33	115.67	104.17
38	RICY	174.94	118.56	114.87	118.85
39	SRIL	532.82	481.18	306.02	368.20
40	STAR	174.27	180.89	199.93	277.04
41	TRIS	200.18	188.75	164.17	192.26
42	UNIT	45.03	59.62	64.86	73.90
43	BATA	155.23	247.10	257.01	246.40
44	JECC	103.20	105.01	114.02	106.08
45	KBLI	332.63	284.76	341.06	197.44
46	SCCO	156.63	168.58	168.95	174.21
47	ADES	153.53	138.60	163.51	120.15
48	DLTA	447.32	642.37	760.39	863.78
49	ICBP	218.32	232.60	240.68	242.83
50	INDF	180.74	170.53	150.81	150.27
51	MLBI	51.39	58.42	67.95	82.57
52	MYOR	208.99	236.53	225.02	238.60
53	ROTI	136.64	205.34	296.23	225.86
54	SKBM	147.71	114.51	110.72	163.53
55	SKLT	118.38	119.25	131.53	126.31
56	STTP	148.42	157.89	165.45	264.09
57	ULTJ	334.46	374.55	484.36	419.19
58	GGRR	162.02	177.04	193.79	193.55
59	HMSP	152.77	656.74	523.41	527.23
60	WIIM	227.49	289.38	339.42	535.59
61	DVLA	518.13	352.29	285.49	266.21
62	KAEF	238.70	193.02	171.37	154.55
63	KLBF	340.36	369.78	413.11	450.94
64	MERK	458.59	365.22	421.66	308.10
65	PYFA	162.68	199.12	219.08	352.28
66	SIDO	1025.42	927.65	831.82	781.22
67	TSPC	300.22	253.76	265.21	252.14
68	UNVR	71.49	65.40	60.56	63.37
69	TCID	179.82	499.11	525.95	491.32

b. Rentability ratio (Gross profit margin)

		Gross Profit Margin ***(X2)***			
no	Company Code	2014	2015	2016	2017
1	INTP	45.44	44.44	41.22	34.70
2	SMBR	30.66	33.78	33.56	30.47
3	SMGR	42.98	39.51	37.71	28.62
4	AMFG	24.66	21.75	21.07	15.12
5	ARNA	32.44	22.30	21.77	23.36
6	TOTO	25.86	25.02	21.44	25.06
7	INAI	11.88	12.12	13.48	18.85
8	ISSP	21.57	21.57	21.44	15.36
9	JKSW	-2.28	-10.84	2.11	1.10
10	LION	38.82	36.55	40.87	35.30
11	LMSH	6.89	5.95	11.69	12.46
12	PICO	11.81	11.70	13.39	12.55
13	TBMS	2.41	3.32	4.39	3.70
14	DPNS	25.51	22.62	25.44	22.34
15	EKAD	25.41	28.48	34.86	30.05
16	INCI	21.55	24.43	24.02	22.34
17	SRSN	20.38	21.53	17.92	21.87
18	TPIA	4.77	10.58	26.22	22.53
19	AKPI	11.28	10.83	12.17	9.63
20	IGAR	14.96	14.95	17.79	16.93
21	IPOL	16.17	18.80	22.35	19.15
22	TALF	18.71	15.08	13.12	10.75
23	TRST	8.60	8.62	8.77	8.30
24	CPIN	14.18	17.07	17.03	12.66
25	JPFA	14.01	15.96	20.24	16.99
26	ALDO	17.31	19.16	16.83	16.90
27	INKP	17.22	21.52	21.37	28.89
28	KDSI	14.16	12.93	13.70	13.94
29	TKIM	11.60	10.41	11.05	10.79
30	ASII	19.24	19.93	20.12	20.56
31	AUTO	14.32	14.76	14.47	12.96
32	BRAM	16.53	16.98	20.50	19.34
33	INDS	17.07	11.12	15.51	19.39
34	NIPS	17.78	18.49	17.18	15.54
35	SMSM	29.81	31.02	32.44	30.15
36	ARGO	-11.12	-10.99	-2.59	-5.85
37	INDR	10.36	9.09	9.40	11.43
38	RICY	20.38	25.90	22.53	19.28

39	SRIL	22.07	21.45	21.38	22.55
40	STAR	20.39	17.04	22.53	21.17
41	TRIS	25.29	25.63	23.86	23.46
42	UNIT	35.79	31.27	30.96	30.44
43	BATA	44.66	39.53	43.15	45.95
44	JECC	11.28	11.10	17.11	13.98
45	KBLI	8.81	10.72	18.99	16.15
46	SCCO	8.98	9.60	14.97	11.97
47	ADES	51.64	50.72	51.80	53.89
48	DLTA	70.23	66.67	69.79	73.88
49	ICBP	26.85	30.30	30.51	31.06
50	INDF	26.81	26.94	29.11	28.31
51	MLBI	60.43	57.91	65.81	67.02
52	MYOR	17.89	28.33	26.71	23.90
53	ROTI	47.94	53.12	51.59	52.50
54	SKBM	12.80	12.85	12.39	10.11
55	SKLT	22.69	24.68	25.73	25.93
56	STTP	18.77	20.91	20.89	21.71
57	ULTJ	23.92	31.46	34.85	37.36
58	GGRR	20.53	22.01	21.79	21.87
59	HMSP	25.41	24.44	24.99	24.44
60	WIIM	29.12	30.44	30.21	29.31
61	DVLA	53.02	51.89	55.22	56.74
62	KAEF	30.65	31.62	32.07	35.93
63	KLBF	48.80	48.03	48.97	48.62
64	MERK	53.11	50.46	52.40	50.84
65	PYFA	63.58	63.34	62.37	60.53
66	SIDO	38.20	39.82	41.68	45.14
67	TSPC	39.14	38.11	38.13	38.24
68	UNVR	49.55	41.12	51.08	51.50
69	TCID	38.83	37.92	38.92	37.21

c. Leverage ratio (Debt to equity ratio)

		Debt to Equity Ratio ***(X3)***			
no	Company Code	2014	2015	2016	2017
1	INTP	0.17	0.16	0.15	0.18
2	SMBR	0.08	0.11	0.40	0.48
3	SMGR	0.37	0.39	0.45	0.61
4	AMFG	0.23	0.26	0.53	0.77
5	ARNA	0.38	0.60	0.63	0.56
6	TOTO	0.65	0.64	0.69	0.67
7	INAI	5.15	4.55	4.19	3.38
8	ISSP	1.36	1.13	1.28	1.21
9	JKSW	-1.73	-1.60	-1.62	-1.57
10	LION	0.35	0.41	0.46	0.51
11	LMSH	0.21	0.19	0.39	0.24
12	PICO	1.71	1.45	1.34	1.58
13	TBMS	7.99	5.02	3.49	3.51
14	DPNS	0.14	0.14	0.12	0.15
15	EKAD	0.51	0.33	0.19	0.20
16	INCI	0.08	0.10	0.11	0.13
17	SRSN	0.41	0.69	0.78	0.57
18	TPIA	1.21	1.10	1.41	0.79
19	AKPI	1.15	1.60	1.34	1.44
20	IGAR	0.33	0.24	0.18	0.16
21	IPOL	0.84	0.83	0.81	0.80
22	TALF	0.32	0.24	0.17	0.20
23	TRST	0.92	0.75	1.03	1.15
24	CPIN	0.91	0.97	0.71	0.56
25	JPFA	1.97	1.81	1.05	1.15
26	ALDO	1.24	1.14	1.04	1.17
27	INKP	1.71	1.68	1.44	1.37
28	KDSI	1.40	2.11	1.72	1.74
29	TKIM	1.91	1.81	1.66	1.59
30	ASII	0.96	0.94	0.87	0.89
31	AUTO	0.42	0.41	0.39	0.40
32	BRAM	0.73	0.60	0.50	0.40
33	INDS	0.25	0.33	0.20	0.14
34	NIPS	1.10	1.54	1.11	1.16
35	SMSM	0.53	0.54	0.43	0.34
36	ARGO	-7.72	-5.12	-3.04	-2.36
37	INDR	1.44	1.71	1.83	1,81
38	RICY	1.95	1.99	2.12	2.19

39	SRIL	2.00	1.83	1.86	1.70
40	STAR	0.58	0.49	0.41	0.25
41	TRIS	0.69	0.74	0.85	0.53
42	UNIT	0.82	0.90	0.77	0.74
43	BATA	0.81	0.45	0.44	0.48
44	JECC	5.20	2.69	2.37	2.52
45	KBLI	0.42	0.51	0.42	0.69
46	SCCO	1.03	0.92	1.01	0.47
47	ADES	0.71	0.99	1.00	0.99
48	DLTA	0.30	0.22	0.18	0.17
49	ICBP	0.66	0.62	0.56	0.56
50	INDF	1.08	1.13	0.87	0.88
51	MLBI	3.03	1.74	1.77	1.36
52	MYOR	1.51	1.18	1.06	1.03
53	ROTI	1.23	1.28	1.02	0.62
54	SKBM	1.04	1.12	1.72	0.59
55	SKLT	1.16	1.48	0.92	1.07
56	STTP	1.08	0.90	1.00	0.69
57	ULTJ	0.29	0.27	0.21	0.23
58	GGRR	0.75	0.67	0.59	0.58
59	HMSP	1.10	0.19	0.24	0.26
60	WIIM	0.56	0.42	0.37	0.25
61	DVLA	0.28	0.41	0.42	0.47
62	KAEF	0.64	0.74	1.03	1.37
63	KLBF	0.27	0.25	0.22	0.20
64	MERK	0.29	0.35	0.28	0.37
65	PYFA	0.79	0.58	0.58	0.47
66	SIDO	0.07	0.08	0.08	0.09
67	TSPC	0.35	0.45	0.42	0.46
68	UNVR	2.11	2.26	2.56	2.65
69	TCID	0.44	0.21	0.23	0.27

Appendix 3

		Current Ratio X Gross Profit Margin ***(X1X2)***			
no	Company Code	2014	2015	2016	2017
1	INTP	22418.73	21716.05	18652.05	12849.76
2	SMBR	39841.44	25580.58	9626.01	5118.96
3	SMGR	9494.28	6309.75	4798.60	4487.04
4	AMFG	14461.61	10123.10	4255.72	3038.36
5	ARNA	5214.73	2276.16	2936.34	3798.80
6	TOTO	5452.58	6021.56	4695.15	5752.52
7	INAI	1285.89	1216.24	1351.91	1870.86
8	ISSP	2928.99	2773.25	2485.75	2312.14
9	JKSW	-574.04	-2642.68	403.12	248.84
10	LION	-842.39	13897.41	14544.41	11548.04
11	LMSH	21614.59	4812.90	3238.25	5335.25
12	PICO	1142.71	1857.84	2240.41	1889.40
13	TBMS	937.60	294.58	433.73	384.80
14	DPNS	2946.97	30197.70	38578.74	21494.43
15	EKAD	5942.81	10163.94	17031.20	13580.20
16	INCI	32685.90	23641.64	13967.63	11397.42
17	SRSN	6187.01	4665.77	3122.74	4662.03
18	TPIA	2841.99	1166.87	4000.12	5483.13
19	AKPI	539.92	1116.14	1373.75	1004.79
20	IGAR	4657.51	2931.70	10357.34	9145.59
21	IPOL	1306.31	1651.20	2143.59	1865.21
22	TALF	5970.93	6599.61	3834.84	2957.54
23	TRST	2315.92	1127.93	1137.47	1019.66
24	CPIN	1927.00	3595.28	3700.28	2932.82
25	JPFA	2511.99	2863.70	4310.72	3985.68

26	ALDO	1861.93	4491.87	2487.98	2434.28
27	INKP	2390.68	3016.46	3415.57	6046.10
28	KDSI	2355.52	1495.48	1687.70	1653.84
29	TKIM	2690.54	1490.92	1540.92	1551.71
30	ASII	1534.22	2748.94	2493.67	2526.00
31	AUTO	2562.58	1952.60	2177.88	2020.08
32	BRAM	2027.14	3067.44	3876.14	4620.13
33	INDS	4813.87	2481.21	4703.72	9938.15
34	NIPS	2208.69	1936.46	2092.87	1823.93
35	SMSM	3755.14	7425.57	9278.81	11273.39
36	ARGO	1221.91	-323.00	-81.20	-107.82
37	INDR	-1202.18	1039.26	1087.30	1190.66
38	RICY	1812.38	3070.70	2588.02	2291.43
39	SRIL	10858.87	10321.31	6542.71	8302.91
40	STAR	3846.14	3082.37	4504.42	5864.94
41	TRIS	4081.67	4837.66	3917.10	4510.42
42	UNIT	1138.81	1864.32	2008.07	2249.52
43	BATA	5555.68	9767.86	11089.98	11322.08
44	JECC	4608.91	1165.61	1950.88	1483.00
45	KBLI	3752.07	3052.63	6476.73	3188.66
46	SCCO	1379.91	1618.37	2529.18	2085.29
47	ADES	1378.70	7029.79	8469.82	6474.88
48	DLTA	23099.60	42826.81	53067.62	63816.07
49	ICBP	15332.61	7047.78	7343.15	7542.30
50	INDF	4852.87	4594.08	4390.08	4254.14
51	MLBI	1377.77	3383.10	4471.79	5533.84
52	MYOR	12629.27	6700.89	6010.28	5702.54
53	ROTI	2444.49	10907.66	15282.51	11857.65

54	SKBM	7081.22	1471.45	1371.82	1653.29
55	SKLT	1515.26	2943.09	3384.27	3275.22
56	STTP	3367.65	3301.48	3456.25	5733.39
57	ULTJ	6277.81	11783.34	16879.95	15660.94
58	GGRR	3875.52	3896.65	4222.68	4232.94
59	HMSP	3136.37	16050.73	13080.02	12885.50
60	WIIM	5780.52	8808.73	10253.88	15698.14
61	DVLA	15087.95	18280.33	15764.76	15104.76
62	KAEF	12655.87	6103.29	5495.84	5552.98
63	KLBF	10432.03	17760.53	20230.00	21924.70
64	MERK	22379.19	18429.00	22094.98	15663.80
65	PYFA	8639.93	12612.26	13664.02	21323.51
66	SIDO	65196.20	36939.02	34670.26	35264.27
67	TSPC	11468.40	9670.79	10112.46	9641.83
68	UNVR	2798.12	2689.25	3093.40	3263.56
69	TCID	8910.08	18926.25	20469.97	18282.02

Appendix 4

Table 4.1 **Descriptive Statistics**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Return On Equity	276	.06	143.53	4383.11	15.8808	21.57611
Current Ratio	276	18.43	1516.46	73848.39	267.5666	229.60108
Gross Profit Margin	276	-11.12	73.88	7098.14	25.7179	15.58077
Debt to Equity Ratio	276	-7.72	181.00	409.26	1.4828	10.91224
Valid N (listwise)	276					

Appendix 5

Table 4.2 **Correlations**

	Y	X1	X2	X3
Y	1	-.098	.364**	-.036
X1	-.098	1	.235**	-.072
X2	.364**	.235**	1	-.056
X3	-.036	-.072	-.056	1

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 6

Table 4.3 **One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		276
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	19.67618867
Most Extreme Differences	Absolute	.195
	Positive	.195
	Negative	-.152
Test Statistic		.195
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Appendix 7

Table 4.4 **Multi-Collinearity Test**

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		

X1	.941	1.062
X2	.943	1.060
X3	.993	1.007

a. Dependent Variable: Y

Appendix 8

Table 4.5 **Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.410[a]	.168	.159	19.78440	2.089

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

280. 3. 1.78970 1.81846

Appendix 9

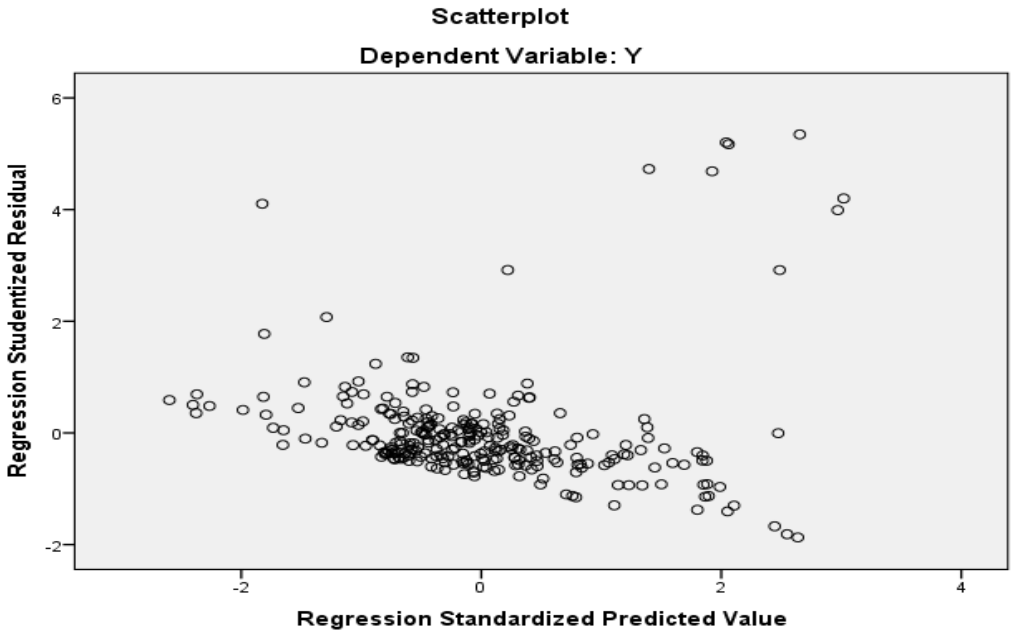

Figure 4.1

Appendix 10

Table 4.6 **Multiple Regression Analysis**

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.343	2.513		2.524	.012
	X1	-.018	.005	-.195	-3.428	.001
	X2	.565	.079	.408	7.166	.000
	X3	-.053	.110	-.027	-.486	.628

a. Dependent Variable: Y

Appendix 11

Table 4.7 **Simultaneous Test (F Test)**

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21553.465	3	7184.488	18.355	.000[b]
	Residual	106466.910	272	391.422		
	Total	128020.376	275			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X2, X1

Appendix 12

Table 4.8 **Coefficient Determination Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410[a]	.168	.159	19.78440

a. Predictors: (Constant), X3, X2, X1

Appendix 13

Table 4.9 **Coefficients[a]**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.131	3.398		-.333	.739
	X1	.013	.011	.140	1.158	.248
	X2	.851	.120	.615	7.091	.000
	X1X2	-.001	.000	-.463	-3.106	.002

a. Dependent Variable: Y