

CHAPTER I

INTRODUCTION

1.1 Motivation and Background

Manager is one of the most important position in a company. By the means of important is most likely they have huge responsibility on their shoulder to make crucial decisions regarding to the business. One of so many crucial decisions that they should make is about dividend policy. Dividend policy somehow connected with the determinant of the income both for shareholder as a form of cash dividends and retained earning as for reinvestment plan for the company. In the business world, this thing has become some controversies for ages. Companies regularly face three basic and important questions (1) how much amount or percentage of free cash flow should company converts towards its shareholders? (2) Cash should be paid by repurchasing stocks or by raising dividend to shareholders? (3) Should company remain the dividend policy same or have need to change with situation? (Aurangzeb and Dilawer, 2012).

Dividend policy is one of the crucial things for the decision-making process. Cornell and Shapiro (1987) stated that there's a connection or influence between investment and funding decision. With the sufficient amount of funding, the company will most unlikely to lose the opportunity of profitable investment. Dividend policies are also relevant for portfolio considerations because they provide risks for returning individual stock risk. Generally speaking, the goals for investors to invest their money in a company are to derive the dividend yield and capital gain. As a shareholder,

investors tend to have portfolio that will gives them high return or at least stable return from year to year. On the other hand, the company will keep another portion of income that doesn't distributed to shareholders as retained earning to be used as reinvestment in the future. As stated all above, the dividend payout ratio become an important thing to discuss further.

We all might wonder why the dividend policy become debatable and become one of the most important decision that the management of a company should make properly. One of the reasons is because dividend policy reflects the firm value of the company. As John and Muthusamy (2010) stated on their research, dividend policy affects the value of the company as seen from the company's stock price. The company growth will as well affects the income that the company earned, if the income raises at a certain level it will automatically increases the stock price and dividends to be distributed by the company to shareholders will also increase in number. And eventually, the firm value will also increase.

However, Miller and Modigliani (1961) or as known by MM theory against the statement above, that the firm value is not determined by the amount of dividend that the company distribute to shareholders. The statement was not relevant because the amount of dividend determined by the net income and company risks (Demirgüneş, 2015). But then again, some researchers and experts have a different opinion. Some of them said that the dividend payment depends on the company's long term earning. This is supported by Hellstrom and Inagambaev (2012), they stated that shareholders rather

to have dividend than capital gain because dividend tends to have low risk compares to capital gain.

But another theory stated that some of the investors prefer to have capital gain compares to dividend yield. This is because of the different tax treatment for both. Dividend yield will be subject to tax rates higher than capital gains. This theory further explains that dividends are taxed directly, while capital gains are not taxed until the shares are sold (Rafique, 2012).

To conclude all the theories stated above, this research will mainly discuss and analyze what factors that might affect the dividend payout ratio in a company by using the financial ratios as measurement. This is the development of the previous research done by Tjungandi and Mulyana (2018) about the influence of creative accounting and other factors to dividend payout ratio. The difference between this research and the previous one is the independent variable that will be used. This research will only use liquidity, firm size, leverage, return on equity and sales growth. The author decides to not use the creative accounting as independent variable to make the research more general and can be implemented in both Taiwan and Indonesia.

The economic and business condition in both countries seem slightly different when it comes to creative accounting. The businesspeople maybe tend to have different ways to do the creative accounting depends on the circumstances from each country. That's why to make this research understandable for everyone as general, only financial ratios will be used. The research period will cover from the year 2016 to the year 2018,

the object will be the same as the previous one, that is collected from Indonesian Stock Exchange, focusing on manufacturing company.

1.2 Research Problem

The several issues that will be discussed in this study include:

1. Does liquidity have a significant influence on the dividend payout ratio?
2. Does firm size have a significant influence on the dividend payout ratio?
3. Does leverage have a significant influence on the dividend payout ratio?
4. Does return on equity have a significant influence on the dividend payout ratio?
5. Does sales growth have a significant influence on the dividend payout ratio?

1.3 Research Objectives and Benefits

1.3.1 Research Objectives

In accordance with the above research problem, the objectives of this study are as follows:

1. To obtain empirical evidence regarding the effect of liquidity on dividend payout ratio.
2. To obtain empirical evidence regarding the effect of firm size on dividend payout ratio.
3. To obtain empirical evidence regarding the effect of leverage on dividend payout ratio.
4. To obtain empirical evidence regarding the effect of return on equity on dividend payout ratio.

5. To obtain empirical evidence regarding the effect of sales growth on dividend payout ratio.

1.3.2 Research Benefits

This research is expected to provide benefits to the parties concerned. The benefits of this research are as follows:

1. For management

This research is expected to provide enough information to find out what factors can affect the dividend payout ratio. And can be used for evaluation materials for company management to be able to try better and improve the performance of the company. Besides that, it can help the stakeholders in the decision-making process.

2. For potential investors

This research is expected to be a good reference and consideration for potential investors before investing their funds into a company. As well as being a reference material in assessing the performance of a company before deciding an investment plan.

3. For the further research

This research is expected to be one of the sources of reference for further research, through the results in the form of empirical evidence about what factors can affect the dividend payout ratio.

1.4 Research Concept

Systematics of writing is structured with the intention of providing knowledge to the reader regarding the contents of the research as a whole. The following is a systematic arrangement of writing:

CHAPTER I: INTRODUCTION

This chapter will explain a brief explanation of the motivation and background of the research, research problems, objectives and the benefits of the research, and systematic writing.

CHAPTER II: THEORITICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

This chapter will explain the theoretical framework, research models, and hypothesis development.

CHAPTER III: RESEARCH METHOD

This chapter will explain in detail about the method research used, forms of research, research objects, operational definitions and measurement variables, and techniques in data collection.

CHAPTER IV: DISCUSSION AND ANALYSIS

This chapter contains a general description of the sample, statistics descriptive variables, data quality test results, and hypothesis testing which indicates the presence or absence of influence on dependent variable.

CHAPTER V: CONCLUSION AND RECOMMENDATION

This chapter contains conclusions on whether the research is consistent with the previous one or not, research limitations, and recommendations for further research.

CHAPTER II

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical Framework and Literature Review

2.1.1 Agency Theory

Jensen and Meckling (1976) in Godfrey et al. (2010) explained that the agency relationship is a contract between principles and agents. The principles need the agents to do some work on principles' behalf that involve delegating authority in hiring an agent. To simply understand, agency theory is a theory that described the relationship that occurred because of the contract that happened between one party to another. In this theory, management is a party that is contracted by shareholders to work in the interests of shareholders. Therefore, management must take responsibility for every activity carried out by the company to the relevant parties.

Wijoyo (2014) on her research stated that by the principle of employment relations, both parties tend to strive to get a large profit for themselves. It is like the most common thing that the human being does, maximizing their own interest. In this situation, manager act as insider, or the party that's fully understand about the company's condition. By that reason, the shareholders trust all their funds invested in the company to be managed by the manager. They hope that as an insider, managers try as much as possible to increase the value of the company, so that with the increase in the value of the company the prosperity of the shareholders will also increase.

Both shareholders and managements in this case have a different interest that will lead them to a conflict, or we can call it as agency cost. The shareholder will gradually control the operations by the company that is done by the management through financial statement, but, in the other hand, the financial reports were all controlled by the management's authority. Tjungandi and Mulyana (2018) said that the agency cost theory says that a firm that distribute dividend is reassuring shareholders that their money not wasted by the managers. In the relation with the dividend policy, the agency cost theory suggest that dividend policy is determined by agency cost arising from the divergence of ownership and control (Priya & Nimalathan, 2013).

The conflict also occurred because the managers may not always use the dividend policy to maximize shareholder's interest, otherwise they tend to choose the dividend policy that will maximizes their own benefit. The dividend-retention problem that arises when managers prefer to pay dividend less than what the shareholders prefer (Godfrey, 2010). This will happen because as insider of the company, managers want to preserve the earning to maximize their salaries, bonuses, as well as power of the firm under their management (Tjungandi & Mulyana, 2018).

2.1.2 Signaling Theory

Signaling theory assumes that information is not equally available at the same time both for management and shareholders. Related to the agency theory above, managers as an insider have a lot of information about the company compared to outside parties. Managers of the company tend to use the signaling theory to give signal

regarding to the condition of the company to shareholders to make them understand whether the company is in a good or bad condition. Tjungandi and Mulyana (2018) said that because the owners do not involve in the operations of the business, the information received will be different. The gap of the difference information called asymmetric information.

Asymmetric information or generally known as information failure happened when one party possessed greater material knowledge than another parties. Shareholders as an investor of the company have the expectations and intentions for the future of the firm that they invest in, so that's why the managers as an agent use this signaling theory to give them signal (Godfrey, 2010). By distributing dividends, outsiders will be assumed it as a good and positive signal that the company is in a good state.

2.1.3 Bird-in-hand Theory

Bird-in-hand theory also become one of the theories used for dividend policy. The theory was first developed by Myron Gordon (1956) and John Lintner (1962). They stated that investors rather to receive cash dividend than capital gain (bird-in-bush theory). The shareholders as an investor at the company tend to have less risky investment. They thought that the cash dividend that paid in a current time will be less risky than the capital gain that they will receive in the future. Shareholders seen the cash dividend as a form of certainty to reduce the risk. As the main goals for them to

invest, they expect high cash dividend payment from company's earning. They will willingly pay at higher price for the company who paid cash dividend in a current time.

And, Myron Gordon (1956) and John Lintner (1962) in Priya and Nimalathasan (2013) research stated that the essence of the bird-in-hand theory of dividend policy argues that outside shareholders prefer a higher dividend policy. Investors think dividends are less risky than potential future gains, hence they like dividends. If so, investors would value high payout firms more highly.

2.1.4 Dividend Payout Ratio

Dividend payout ratio is a financial policy that made by financial managers to determine whether company profits in the current period must be distributed to the shareholders as dividends or set aside in retained earnings (Gamayuni 2015). Gamayuni (2015) also mentions that signaling theory assumes that information about dividends can be a positive information for investors because the company has more value on cash flow from operations that can be shared. Pinto and Rastogi (2019) concluded that the dividend policy by management can affect the value of the company and its interlinked with the firm's investment policy. Dividend policy can be a benchmark about how much profit can be obtained by shareholders. The greater the dividends distributed will increase the welfare of its shareholders, which is the company's main goal (Gamayuni 2015).

As we discussed in the introduction part of this research, dividend payout ratio or dividend policy is one of the most crucial financial corporate decision, related to financing and investing decision. Ooi (2001) in Pinto and Rastogi (2019) research stated that although dividend payout is considered as a vital management decision, it continues to puzzle managers, researchers, and investors. This whole thing leads to the questions about what factors that influenced dividend policy? Or does investor really pay attention to dividends? If we see from the public's point of views, we might think or wonder that as a long-term investor, isn't it way more profitable to get both cash dividends at current period and capital gain in the future time?

Things would be different if the investors only do the short-term investment in a company, or simply we can say the goals of the investment is only for trading (buy and sell the stock) this type of investor will way more paying attention about the capital gain that they will receive rather than the cash dividends. Priya and Nimalathan (2013) say that the optimal dividend policy is the one that maximizes the company's stock price, which leads to maximization of shareholder's wealth. The statement approves that no matter what, and whether or not dividend decisions can contribute to the value of firm, the policy is really focused on increasing shareholder's interest.

To determine the factors that might influenced dividend policy, this research will use the financial ratios as measurement. And in this case, the dividend payout ratio will be used to measure the dividend policy. The dividend payout ratio is the ratio of the total amount of dividends paid out to shareholders relative to the net income of the

company. The dividend payout ratio can be interpreted as a company's level of maturity. A new established company tend to have low or even zero payout ratio because they will allocate their earning fully to expand the business by reinvesting activities. But for the matured and well-developed company tend to have higher level of payout ratio, their objective changes time to time to increase the owner's wealth, which is shareholders.

2.1.5 Liquidity

The liquidity ratio illustrates how capable a company to fulfill its short-term obligations. This statement is supported by a research done by Dewi (2016) which states that the high liquidity of the company indicates the company's ability to meet its short-term obligations including paying dividends. Lusiyanti (2014) in Wijoyo (2014) states that liquidity ratios are very useful for companies to analyze internally and as a management aide to evaluate company performance, then the evaluation can then be used to correct errors that can complicate company finances.

Liquidity become an important factor that influence dividend payment, since dividend represents the cash outflow (Malik et al., 2013). The more liquid of the company the more stable cash flow that they have, and it will automatically impact the greater ability to pay cash dividends. Tjungandi and Mulyana (2018) on their research explained that companies prefer to keep their liquidity at a certain amount as a form of guarantee for financial flexibility and uncertainty. They also mentioned that by paying

dividends, the company's liquidity will decrease. The higher the liquidity level will lead the company to pay higher amount of cash dividends.

The empirical studies about the influenced of liquidity to dividend payout ratio showed by the research done by Tjungandi and Mulyana (2018), stated that liquidity has no influence on dividend payout ratio. That means, no matter how liquid the company or how fast the company fulfill its short-term obligations will not determine the dividend policy made by the management. The same result also shown in a research conducted by Hudiwijono et al. (2018). But as a contradiction, a research done by Olang et al. (2015) showed a different result. It stated that liquidity has a positive effect on dividend payout ratio. It means as the level of liquidity increases, the dividends paid out level do also increase and vice versa. Firms maintain high liquidity thresholds in order to mitigate any likelihood of financial distress and they do this by embracing the best business practices through optimum working capita management (Olang et al. 2015).

2.1.6 Firm Size

Firm size refers to how big the firm is according to its total asset, total sales and market capitalization as measurement. Based on Redding (1995) on Tjungandi and Mulyana (2018) research stated that large firm have a better opportunity to raise funds at lower cost and easier entry to the capital market. That means, the larger the firm is the easier to get a bigger funding from the investors. By that argument, it simply

concludes that the firm will not depends so much on its retained earning to expand the business, instead, it can distribute higher cash dividends to the shareholders.

Hudiwijono et al. (2018) explained that firm size is the number and variety of production capacity and the ability of a company to process the production or the amount and variety of corporate services that can be provided simultaneously to its customers. Some researchers point out that larger firms tend to distribute higher number of dividends to reduce the agency costs, because again, managers have full control of the company compared to the shareholders.

The empirical studies about the influenced of firm size to dividend payout ratio showed by the research done by Tjungandi and Mulyana (2018), stated that firm size has no influence on dividend payout ratio. The same result also shown by research done by Hudiwijono et al. (2018), stated that the increase of firm size does not directly raise the dividend payment. It could be interpreted that the increase of firm size doesn't followed by the increase of number of cash dividend distributed to the shareholders. Company's exposure could be a dominant impact on the dividend policy, but not with the company's size.

2.1.7 Leverage

Based on Suffah and Riduwan (2016) in their research stated that the solvency ratio (financial leverage) is illustrated to see the extent to which the company's assets are financed by debt compared to own capital. Similar to the opinion of Gitman and

Zutter (2012) in Wijoyo (2014) which states that financial leverage is the magnification of risk and return through the use of fixed cost funding such as debt and preferred stock. Simply put, financial leverage shows how much the company's assets are financed by debt. Sources of funding can be obtained from two parties, namely the company's creditors and equity.

According to Kieso et al. (2011) in Tjungandi and Mulyana (2018) research, the reason why companies did not pay dividends equal with their available retained earnings is to fulfill the debt with the creditors. The greater the proportion of debt used by the company, the owners of capital themselves will bear the greater risk. The risk can be in the form of bankruptcy, because the company will be required to repay its loans at high interest rates (Wijoyo 2014). Managers working hard to reduce the information gap as mentioned in the signaling theory above through dividend payment, but it also can increase the conflict between company and creditors.

The conflict happens because when the dividend payout increases, company will have less money to reinvest and eventually use the external funding. In order to meet the debt covenant to the creditors such as required retained earnings, company tend to pay lower dividend to the shareholders (Tjungandi & Mulyana, 2018). Farahani and Jhafari (2013) say that the financial leverage influences the policy of distributing dividends because they are effective in changing company's dividend. Thus, it can be concluded that the higher the leverage is, the lower dividend paid by the companies.

The empirical studies about the influenced of leverage to dividend payout ratio showed by the research done by Tjungandi and Mulyana (2018), they stated that financial leverage has no influence on dividend payout ratio. But a different result showed by a research done by Hudiwijono et al. (2018). Financial leverage has a positive and significant effect on dividend payout policy. The increase of leverage gives significant impact as the company continues to pay the dividends to its shareholders. In another word, companies who have a past of higher leverage will normally pay lower dividend to avoid the higher cost of raising external capital for the company (Farahani & Jhafari, 2013).

2.1.8 Return on Equity

Return on Equity or ROE is one of the financial ratios used to measure the ability of the company to generate earnings with the capital owned by the company itself. Tjungandi and Mulyana (2018) on their research said that ROE can also measure the rate of return on the ownership interest of common stock owners, refers as shareholder's equity. They also mentioned that high profitability will generate more cashflow in a future and that means, the shareholders expect that the firm will distribute higher cash dividends.

ROE classified as one of the profitability ratios. According to Arilaha (2009) in Nerviana Riri (2015), profitability of company is one way to assess accurately the extent to which the rate of return that would be obtained from investment activities. Shareholders will expect the company with a high profit to distribute higher return on

investment in the form of dividends. ROE which is a measure of the company's ability to generate profits with its own total used capital. This ratio shows the level of investment efficiency that appears on the effectiveness of managing their own capital (Sartono, 2008).

The empirical studies about the influenced of return on equity to dividend payout ratio showed by the research done by Tjungandi and Mulyana (2018), they stated that return on equity has positive influence on dividend payout ratio. That means, if the return on equity is higher, the dividend payout ratio will be higher, vice versa. Same result conducted by Nerviana Riri (2015), stated that return on equity has positive and significant effect on the dividend payout ratio. As we all know, dividend is a part of company's profit that distributed to the shareholders. The significant and positive affect might be caused by the potential increase of the company's earning. The increase may make the company able to set the amount of dividend distributed in a certain level and that will be used for investment plan in a matter of business expansion.

2.1.9 Sales Growth

Sales growth reflects the growth of the company in the sales side. Many researchers stated that the sales growth can be a positive signal to the investors that the company will potentially distribute high dividends. But, to argued that theories, Hudiwijono et al. (2018) stated that companies with the growing income tend to pay dividends in small amount due to high capital demand during the rapid growth. Most

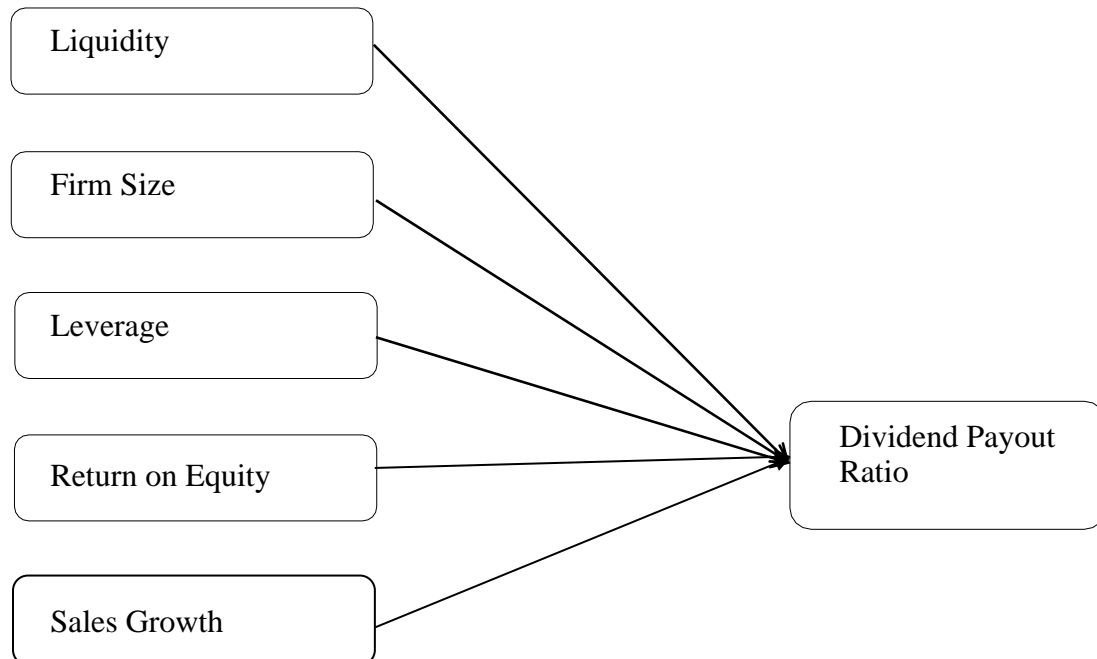
likely possibility is the growing companies are trying to improve the internal finance and try as much to reduce the external finance to avoid paying high interest.

The free cash flow theory hypothesis, Jensen et al (1992), states that companies with higher growth opportunities will have low free cash flow because most of the funds are used for investment in projects that have a positive Net Present Value (NPV). Companies with high sales and profit growth rates tend to distribute dividends more consistently than companies with low sales growth rates. That means, if the management able to maintain the amount of sales in a certain level, the shareholders will expect that the company will also maintain the constant or even higher dividend payment.

The empirical studies about the influenced of sales growth to dividend payout ratio showed by the research done by Tjungandi and Mulyana (2018), they stated that sales growth has influence on dividend payout ratio. It means, if the sales growth is higher, the dividend payout ratio will be lower, vice versa. As a contradiction, the research done by Nerviana Riri (2015) has a different result. Sales growth does not have a significant effect on dividend payout ratio. It might cause by not all of the companies used as a sample has the increasing amount of sales every year, some of them might experience a decline in sales. But the company that experience a declining in sales not always experience decline in profit, some of them can also generate higher profit. This can be concluded that sales growth is not considered in determining dividend.

2.2 Research Model

Based on the discussion of the theory above, the researchers conclude the research model is as follows:



2.3 Hypothesis Development

Based on the descriptions that have been explained in the theoretical framework regarding the factors that affect the dividend payout ratio, then the following hypothesis is formulated:

Ha1 Liquidity have a significant influence on dividend payout ratio.

Ha2 Firm size has a significant effect on dividend payout ratio.

Ha3 Leverage has a significant effect on dividend payout ratio.

Ha4 Return on equity has a significant influence on dividend payout ratio.

Ha5 Sales growth has a significant influence on dividend payout ratio.

CHAPTER III

RESEARCH METHOD

3.1 Research Form

Based on the characteristics of the problem, the form of research used in this study is **causality research**. Causality research is research used to explain the causal relationship between the independent variables used with the dependent variable through hypothesis testing. The independent variables used are liquidity, firm size, leverage, return on equity, sales growth to determine the dependent variable, the dividend payout ratio.

3.2 Research Object

The object of research in this study is manufacturing companies listed in the Indonesia Stock Exchange (IDX) in the period 2016 to 2018. The sample selection technique uses a purposive sampling method. According to Sekaran and Bougie (2016) purposive sampling is the population sampled in this study must meet certain criteria that have been determined by researchers to achieve their goals. The determination of this criterion aims to avoid mistakes that can affect the results of research. The following are the company criteria that can be used as samples referring to research conducted by Tjungandi & Mulyana (2018):

1. Manufacturing firms which consistently listed in Indonesia Stock Exchange from the year 2015 – 2019.

2. Manufacturing firms which consistently published their financial statements from 2016 – 2018.
3. Manufacturing firms which financial statement period ended as of December 31st.
4. Manufacturing firms which report their financial statements using IDR currency from the year 2016 – 2018.
5. Manufacturing firms which consistently paid cash dividend from 2016 – 2018.
6. Manufacturing firms which consistently earned profit from 2016 – 2018.

3.3 Operational Definition

In this study, researchers used the dependent and independent variables. Based on the problems and hypotheses that have been developed, the variables used in this study are defined as follows:

3.3.1 Dependent Variable

3.3.1.1 Dividend Payout Ratio

Dividend policy that represent dividend payout ratio is the company's financial decision whether the profits obtained will be distributed to shareholders or retained as retained earnings. Dividend policies often lead to conflicts between company management and shareholders. This happens because company managers often have different interests from shareholders (Rizqia et al. 2013). Dividend policy become an important decision to make in a company, because it changes might be the signal to investors to invest their money as an important source of funding to expand the business.

The number of dividends distributed to shareholders will be an attraction for shareholders because some investors tend to prefer dividends compared to capital gains, because dividends are more certain (Prastuti and Sudhiarta 2016). Dividend policy can be measured using a ratio scale by comparing dividends to net profit (Tjungandi and Mulyana, 2018).

$$\text{Dividend Payout Ratio (DPR)} = \frac{\text{Dividend}}{\text{Net Profit}}$$

3.3.2 Independent Variable

3.3.2.1 Liquidity

Liquidity ratio is the ratio used to measure the level of a company's ability to pay short-term obligations (Gitman and Zutter, 2012). High levels of liquidity minimize the company's failure to meet short-term financial obligations to creditors and vice versa. The high and the low of this ratio will affect investors' interest to invest their funds (Rompas 2013). One ratio that can be used to measure a company's liquidity is to use the current ratio scale. Namely the ratio that compares the value of total current assets with the total value of current liabilities (Tjungandi and Mulyana, 2018). Following is the Current ratio formula:

$$\text{Liquidity (CR)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

3.3.2.2 Firm Size

Firm size measured how big the company is through the number of its total asset, sales, and market capitalization. According to Randa and Abraham (2009) in Nerviana Riri (2015) , a large company that can easily access to the capital markets will be able to get the funds faster, but, the larger size of company also expected to generate greater earnings to pay higher dividends. The measurement of this research will use the company's asset, according to Tjungandi and Mulyana (2018):

$$\text{Firm Size (FS)} = \text{Total Assets}$$

3.3.2.3 Leverage

Financial leverage is a source of corporate funding that gets through debt. This debt funding is used by companies to finance their assets outside other funding sources such as capital or equity. Leverage is the ratio between total company's liabilities and total company's assets (Tjungandi and Mulyana, 2018). The measurement scale in this variable uses a ratio scale, by comparing the value of total liabilities and the total assets of the company in the period concerned (Tjungandi and Mulyana, 2018).

$$\text{Leverage (LV)} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

3.3.2.4 Return on Equity

Profitability is the overall measurement of the effectiveness of management in generating profit, Sabrin et al (2016). Profitability also defined as the result of several policies and decisions that chosen by the management in a company. The higher the ratio is, means the company gets more profit. Nerviana Riri (2015) stated that the higher or bigger profit obtained by the company is expected to be able to distribute or provide the return on investment in the form of greater dividends to shareholders. Profitability variables can be measured in various ways. One of them uses a ratio scale is Return on Equity (ROE) ratio. ROE is a ratio used to measure the amount of profit that becomes the rights of the shareholders. According to Tjungandi and Mulyana (2018), the formula to calculate ROE is:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit}}{\text{Shareholder's Equity}}$$

3.3.2.5 Sales Growth

Sales growth measured the growth of the company throughout its sales. But, based on Kashmir (2008) in Nerviana Riri (2015), stated that growth ratios can be calculated on four ways, sales growth, profit growth, earnings growth per share, and dividend growth per share. This research will use the percentage of change in sales as the proxy. Some researchers argued that by using the sales growth percentage will give the negative and significant effect on the dividend payout ratio, that means that with

the high growth of the company, the distribution of dividends to shareholders is getting less. According to Tjungandi and Mulyana (2018), the formula is:

$$\text{Sales Growth (SG)} = \frac{\text{Current Sales} - \text{Prior Sales}}{\text{Prior Sales}}$$

3.4 Data Collection Technique

The data used in this research is secondary data. Secondary data is data obtained from existing information sources (Sekaran and Bougie 2016). The secondary data needed in this study is in the form of financial reports and notes on the financial statements of manufacturing companies listed in the Indonesia Stock Exchange in the period 2016 to 2018. The data can be accessed from the official website of the IDX, www.idx.co.id.

3.5 Data Analysis Method

3.5.1 Descriptive Statistics

According to Ghazali (2016) descriptive statistics provide a description of data that is seen from the average value (mean), standard deviation, variance, maximum, minimum, sum, range, and skewness. Descriptive statistics will provide an explanation of the characteristics of a group of data so that the specific characteristics of the group can be known.

3.5.2 Data Quality Test

3.5.2.1 Normality Test

Normality test is a test used to determine whether in a regression model, both the dependent variable and the independent variable have a normal distribution or not. According to Ghozali (2016) the residual normality test aims to test whether the confounding or residual variables in the regression model are normally distributed. The test to detect the normality of this data was carried out using the One Sample Kolmogorov-Smirnov statistical test with the alpha value determined at 0.05. The first step is to determine the research hypothesis:

Ho: data is normally distributed.

Ha: data is not normally distributed.

Next, determine the testing criteria as follows (Ghozali 2016):

1. If Asymp. Sig. (2-tailed) ≥ 0.05 , then the data are normally distributed.
2. If Asymp. Sig. (2-tailed) < 0.05 , then the data are not normally distributed.

3.5.2.2 Outlier Test

Outliers are cases or data that have unique characteristics that look very different from other observations and appear in the form of extreme values for either a single variable or a combination variable (Ghozali 2016). According to Ghozali (2016) there are four causes for the emergence of outlier data, namely:

1. Error in data entry.
2. Failure to specify the missing value in a computer program.

3. Outliers are not members of the population we take as samples.
4. Outliers come from populations that we take as samples, but the distribution of variables in these populations has extreme values and is not normally distributed.

Outlier tests are carried out if residual values are not normally distributed. Detection of outlier data can be done by determining the boundary value categorized as outlier data by converting data values into standardized scores or commonly called z-scores, which have average values equal to zero and standard deviations equal to one (Ghozali 2016).

According to Hair (1998) in Ghozali (2016) for small sample cases (less than 80), the standard score with a value of ± 2.5 is declared outlier. For a large sample of standard scores stated outlier if the value is in the range of 3 to 4. If the standard score is not used, then we can determine the outlier data if the data is greater than 2.5 standard deviations or between 3 to 4 standard deviations depending on the size of the sample.

3.5.3 Classic Assumption Test

According to Ghozali (2016), the classic assumption test is carried out before doing the hypothesis test. The classic assumption test includes the autocorrelation test, the multicollinearity test, and the heteroscedasticity test.

3.5.3.1 Autocorrelation Test

Autocorrelation test aims to test whether there is a correlation between the error of the intruder in the period t with the error of the intruder in the period $t-1$ (previous) or not in the linear regression model. If there is a correlation, then it is called an

autocorrelation problem. Autocorrelation arises because sequential observations all the time are related to one another. This problem arises because residuals are not free from one observation to another (Ghozali 2016).

Ghozali (2016) states that autocorrelation problems are often found in time series data because "disturbances" in an individual or group tend to affect "disturbances" in the same individual / group in the next period. In contrast to crossection or time crossing data, autocorrelation problems are rarely found.

One way to detect the presence of autocorrelation is by the Langrange Multiplier test. This test will produce Bruesch-Godfrey statistics which are performed by regressing the confounding variable (residual) using the autogressive model (Ghozali 2016). The decision making criteria are:

1. If the significance value of the independent variable < 0.05 then the H_0 hypothesis is not accepted, so it can be concluded that there is an autocorrelation.
2. If the significance value of the independent variable ≥ 0.05 then the H_0 hypothesis is accepted, so it can be concluded that there is no autocorrelation.

3.5.3.2 Multicollinearity Test

Ghozali (2016) explains that the multicollinearity test aims to test whether the regression model found a correlation between independent variables or not. A good regression model should not occur correlation between independent variables. If the independent variables are correlated, those variables are not orthogonal. Orthogonal variable is an independent variable whose correlation value between fellow

independent variables is equal to zero. Multicollinearity can be seen from the value of tolerance and variance inflation factor (VIF). Tolerance measures the variability of selected independent variables that are not explained by other independent variables. The criteria for determining whether multicollinearity occurs or not according to Ghozali (2016) is as follows:

1. If the tolerance value $\leq 0,1$ and Variance Inflation Factor (VIF) ≥ 10 , multicollinearity occurs.
2. If the tolerance value > 0.1 and Variance Inflation Factor (VIF) < 10 , then there is no multicollinearity.

3.5.3.3 Heteroscedasticity Test

Heteroscedasticity test aims to test whether there is an inequality of variance from the residuals of one observation to another in the regression model or not. If the variance from the residual of one observation to another remains the same, then it is called homoscedasticity and if it's different, called heteroscedasticity. A good regression model is a homoscedasticity. Most crossection data contain heteroscedasticity situations because they collect data that represent various sizes (small, medium, large) (Ghozali 2016).

Glejser Test is used to determine whether the regression model occurs heteroscedasticity or not. The Glejser Test is used to regress the absolute value of residual data on the independent variable (Ghozali 2016). The criteria for determining the presence or absence of heteroscedasticity are:

1. If the significance value > 0.05 then heteroscedasticity does not occur.
2. If the significance value < 0.05 , heteroscedasticity occurs.

3.5.4 Hypothesis Test

Hypothesis testing is used to test whether there are influences between independent variables liquidity, firm size, leverage, return on equity, and sales growth to dividend payout ratio. This test consists of the analysis of the correlation coefficient (R), the analysis of the coefficient of determination (Adjusted R²), F test, t test with a significance level of 5%.

This study uses multiple regression analysis in testing the hypothesis. The reason why multiple regression analysis method used is because there is more than one independent variable that affects one dependent variable for each hypothesis. The effect of the independent variable on the dependent variable is translated into a linear function (regression model) in the form of the following equation:

$$Q = \beta_0 + \beta_1 CR + \beta_2 FS + \beta_3 FL + \beta_4 ROE + \beta_5 SG + e$$

Where:

Q = Dividend Payout Ratio

β_0 = Constanta

$\beta_1 \dots \beta_5$ = Regression Coefficient

CR = Liability

FS = Firm Size

FL = Leverage

ROE = Return on Equity

SG = Sales Growth

E = Error

3.5.4.1 Correlation Coefficient Analysis (R)

Ghozali (2016) states that the correlation coefficient analysis is a test used to measure the presence or absence of the relationship between dependent and independent variable to measure the strength or weakness of the relationship between two or more variables. The coefficient of determination is between 0 and 1. The criteria for measuring the strength or weakness of the relationship between variables are:

1. If the value of R is greater than 0.5, the relationship between dependent variable and independent variable is strong.
2. If the value of R is smaller than 0.5, the relationship between dependent variable and independent variable is weak.

3.5.4.2 Coefficient of Determination Analysis (Adjusted R²)

According to Ghozali (2016), the coefficient of determination analysis is a test that aims to measure how far the ability of the model in explaining the variation of the dependent variable. The results of the analysis of the coefficient of determination are indicated by the value of Adjusted R Square. The Adjusted R Square value is between 0 to 1. The criteria are as follows:

1. If the Adjusted R Square value is close to 1, the independent variable is able to provide almost all the information needed to predict the dependent variable.

2. If the Adjusted R Square value approaches 0, it means that the ability of the independent variable to predict the dependent variable is very limited.

3.5.4.3 F Test

The F test is basically used to test whether all independent variables entered in the model have an influence together on the dependent variable (Ghozali 2016). The F test criteria in the study are as follows:

1. If the value of sig. ≥ 0.05 then the regression model is not the right model to predict the dividend payout ratio (the model is not fit).
2. If the value of sig. < 0.05 then the regression model is the right model to predict the dividend payout ratio (model fit).

3.5.4.4 T Test

According to Ghozali (2016), t test is a test used to show how far the influence of one independent variable individually in explaining the variation of the dependent variable. This test can be seen with the following criteria:

1. If the value of sig. ≥ 0.05 then the independent variable does not affect the dependent variable meaning H_a is not acceptable.
2. If the value of sig. < 0.05 then the independent variable influences the dependent variable. that means H_a is accepted