CHAPTER II

LITERATURE REVIEW

AND

HYPOTHESIS DEVELOPMENT

2.1 Firm Value

Firm value defines as investors' collective assessment of how well a firm condition in current and in the future. Usually firm value related with the share prices. Firm value is very important because with high corporate value will be followed by high shareholder wealth (Bringham Gapensi, 1996). Firm value also defines as market value because firm value provide shareholders wealth if the share price is increasing. Fama (1998) revealed that the value of the firm will be reflected from its share price. The higher the stock price the higher the value of the firm. High corporate value is the desire of the owners of the firm, because with a high value shows the shareholder prosperity is also high. Firm value also describe how well management controls their assets that could be observed by their financial performance throughout financial report. This is relate to the agency theory that management is the important role to control the management of cash and there are the principal which is the investor who own the cash in the firms.

2.2 Measurement of Firm Value

1. Tobin's Q

The Tobin's Q ratio is a ratio devised by James Tobin of Yale University, Nobel laureate in economics, who hypothesized that the combined market value of all the companies on the stock market should be about equal to their replacement costs. Another research from Puspitasari and Sudiyanto (2010) stated that Tobin's Q is the ratio of market value measured by dividing total shares outstanding and liability with asset replacement cost. The Q ratio is calculated as the market value of a firm divided by the replacement value of the firm's assets. Another function from Tobin's Q ratio that it could also detect growth prospect, bigger the ratio means firm have a good prospect and investor will give more attention to the firm. Total market value of firm can be calculated using the market capitalization which is total share outstanding times with share price at current price. Firm with higher Tobin's Q usually have strong brand image, good growth prospect and also bigger intangible assets (Brealey and Mayers, 2007). Lower Tobin's Q placed for the competitive and weaker industries. In 1994, Chung and Pruitt suggest according their research that the following Tobin's Q formula is more comprehend the whole aspect which is :

$$\textbf{Tobin's Q} = \frac{\textbf{MVCS} + \textbf{PS} + \textbf{BVD}}{\textbf{Total Assets}}$$

Where :

MVCS = Market Value of Common Stock (Share price of firm's at the publication date times with number of common stock shares outstanding)

PS = Preferred Stock

BVD = Book Value of Debt

There are several advantages of using Tobin's Q ratio :

1. Tobin's Q provide wide range of information and explain more phenomenon in the firm such as the different cross-sectional in investment decision (Classens and Fan, 2003 in Sukamulja, 2004).
2. Tobin's Q considering the growth of share price, management potential and also investment growth (Sudiyanto dan Puspitasari, 2010).
3. Tobin's Q focus on firm valuation which very useful in investor perspective.
4. Not only focus on fundamental aspect, but also going wider in valuing the firm such as firm assets, corporate prospect, and intangible assets.

Besides the usefulness for the investors financial analyst, Tobin's Q biggest drawback that this ratio need big amount of datas, extra time and extra energy to process all the data.

2. Price to Earning Ratio (P/E Ratio)

Price to earning ratio indicates the dollar amount an investor can expect to invest in a company in a company in order to receive one dollar of that company's earnings. P/E is sometimes is referred as the price multiple because it shows how much investors are willing to pay per dollar of earnings. P/E ratio can be calculated by the formula:

$$\boldsymbol{P/E\ Ratio = \frac{Share\ Price}{Earning\ Per\ Share}}$$

P/E Ratio has some weaknesses to overcome like :

1. Manipulation of earning can be happen by most of firms to increase and manipulate net income that will make inaccurate result.
2. Different industries will make comparation of P/E ratio become harder. Because will have an result of different growth level.
3. P/E ratio only includes two component in the measurement which ignore other important component such as future growth.

P/E Ratio also important because :

1. P/E ratio could help investor to comparing two firms accurately
2. Investor can compare firms in one industry and the average of firms in market as a whole.

2.3 Cash Holding

Cash holding can be assume as the cash and cash equivalent that hold by the firm. The function of hold it is there are several motives. Many theories are established relate to the determination of cash holdings. The economics and finance have identified four motives for firm to do cash holding (Bates, Kahle, and Stulz, 2009). There are four motives for firms to hold cash. There are transaction motive, precautionary motive, tax motive, and agency motive. There is one additional motive to hold cash that is speculative motive. Cash holding is not persistently same from one firm to another. Because this motives each of the firm have their own cash holding optimum point to determine the cash holding that necessary judging the aspect of the firm. Cash holding is one of the cash management that firm should maintain and improve in the way to increase their competitive advantage is all around area because cash holding is the key by firm not only to fulfill the liabilities in the short term but also in the long term with an optimal advantage. Cash holding can be a speculative motive in terms that firm want to invest or develop in certain area in the future.

Cash holding is determine precisely by the firm because optimal cash holding can help daily operational the firm and also close the gap the cash that need by the firm (Gill and Shah, 2012). The low level of cash holding have an impact by the firm unavailable to reach the firm's goal and loss the opportunity to invest. Otherwise, high level of cash holding can also have an impact that create opportunity cost for investment chance is higher compare to the low level cash

holding. High cash holding indicate that a lot of cash is idle in the firm which create much higher opportunity cost.

2.4 Theories and Studies Related to Cash Holding

There are three basic theories related to cash holding which are agency theory, pecking order theory and also trade off theory.

2.4.1 Agency Theory

The agency theory was first proposed by Jensen and Meckling (1976). Agency theory is directed at the agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory attempts to describe this relationship using the metaphor of a contract. This theory can be used to understand the relationship between cash holding and firm value. Cash holding relates to agency theory because high cash holding can causing agency conflict (Jensen, 1986). Large cash holding tends to be misused by managers for their own sake. It reflects the conflict of interest between the main objectives of management that is to improve the welfare of shareholders with the manager's personal interests to improve their own welfare. From the previous research there is an effect of cash holding to firm value directly or indirectly. Indirectly related has been done by Pinkowitsz, Stulz, and Williamson (2006) research

about relation between cash holding and firm value in the context of corporate governance throughout 35 countries as sample. The result from this research show that compare companies in countries that not protect their investor will have lower relation in firm value and cash holding compare to the companies in the countries that well protect their investor which result in higher relation. Martinez-Sola, Garcia-Teruel, and Martinez-Solano (2013) and Azmat (2014) already tested directly the relationship and effect of cash holding and firm value in United States and also in Pakistan.

2.4.2 Trade-off Theory

The trade-off theory states that there is a balance between cost and benefit in any corporate decision-making (Myers and Majluf, 1984). Companies need to consider the costs and benefits of holding cash (Kim, Mauer, & Sherman, 1998; Opler, Pinkowitz, Stulz, and Williamson (1999). The trade-off theory's main idea is that a firm chooses how much debt finance and how much equity finance to use by balancing the cost and benefit. An important purpose of the theory is to explain the fact that corporations usually are financed partly with debt and partly with equity. One of the firm's decisions is the level of cash holding. The relation between trade-off theory and cash holding into firm value is that in optimum level of cash holding will have an impact to the firm value. Optimum level of cash holding is determine by the firm itself. The optimum level is

define when the cash holding of the firm can cover the cost of the firm to operate the firm. Optimum level of cash can also differ from each industries because the necessity of the firm.

Despite the benefits of cash holding, cash holding has several drawbacks. According to Jensen (1986), cash holding could increase agency cost. Firms with higher cash holding are not required to access capital market for financing. This situation enables the corporate managers away from the market monitoring. Therefore, the managers could pursue their own interests rather than shareholders. In addition, the rate of return on cash or liquid assets is low because of liquidity premium. Cash can also be exposed to double taxation at corporate and individual levels if it is distributed to shareholders (Chang-Soo et al., 1998).

According to the previous empirical studies different proxies' for determinants of cash holding behaviour of firm, have been incorporated to reflect this theory. For instance, Wasiuzzaman (2014), Uyar and Kuzey (2014), Al-Najjar (2011), Ferreira and Vilela (2004) and Opler (1999) employed the dividend payout, leverage, firm size, liquidity and risk, to empirically examine the firm's cash holding perspective in line with the trade-off theory. Nevertheless, these studies provide mix results. It can be problematic to generalize in other economies due to the unique macro environment of the country.

2.4.3 Pecking-order Theory

The pecking order theory states that there is a sequence of funding sources in corporate financing decisions (Myers and Majluf, 1984). According to the pecking order theory, issuing new shares is expensive because of the information asymmetry. Information asymmetry happen when firm want to expand their financial support throughout issuing shares in the market. In pecking order theory, there is no optimal cash rate (Myers & Majluf, 1984; Azmat, 2014). A linear relationship always occurs when constant increases in cash holding increase the value of the firm and vice versa. The cash balance is used as the basis for determining the retained earnings and the level of investment required by the firm. According to this theory, cash balances are merely the result of financing and investment policies.

Although firms' cash holding is explained by the pecking order, there has been no empirical study until the ground breaking study of Opler (1999). Test the validity of both the trade-off theory and the pecking order theory on the target cash holding behavior by using the model of Shyam-Sunder and Myer (1999). Results confirm that both theories significantly explain the change of cash holding. However, the distinction between trade-off theory and pecking order theory in cash holding policy is not clear. In addition, Opler (1999)

proposed that the distinction become vague as the cost of external financing increased.

Furthermore, Ferreira and Vilela (2004) argued that firms may use the cash for investments activities and also to pay debt of firms therefore, in return firms hold higher liquidity. Likewise, Dittmar et al. (2003) emphasized that firms having high cash flows distribute the dividend smoothly. On the other hand, they also rely on debt financing and holding high cash reserves.

2.5 Factors Affecting Cash Holding

2.5.1 Size

There are several reason why firm size need to include as control variable. The first reason is because firm size can determine the cash holding of the firm. More bigly the firm, the decision making about holding the cash is differ compare to the smaller firm. Each firm have distinctive in determine their optimum level to hold cash. Another reason why firm size is positively affect the cash holding in linear relationship. Positively affect means that more bigly the firm it means that much more cash holding should hold by the firm. Linear relationship between firm size and cash holding means that when the firm size is big the cash holding that the firm hold is bigger and if the firm size is in smaller size cash holding decision holding cash is smaller as well. This upside down of the cash holding is relate linearly with firm

size. Bigger the firm the operation cost for the firm to run is more and another aspect is the necessity of the firm is also different compare to small and medium firm. Firm size have also have impactful aspect in determine the cash holding own by the firm. Large firm is definitely own an also large cash holding compare to small or even medium firm. And for the reason firm size is need to control to determine the effect of cash holding to firm value itself.

2.5.2 Leverage

Leverage ratio is one of several financial measurement that look at how much capital comes in from of debt (loans), or to assess the ability of a firm to meet its financial obligations. The leverage ratio can also give important information of mixture debt and equity to finance the firm. In cash holding, debts is one of the aspect to build the finance regarding the cash and cash equivalent that assets own by the firm.

Leverage ratio is a financial ratio that measures the extent of a firm's leverage. The debt ratio is defined as the ratio of total debt to total assets, expressed as a decimal or percentage. It can be interpreted as the proportion of a firm assets that are financed by debt.

A leverage ratio may also be used to measure a firm's mix of operating expenses to get an idea of how changes in output will affect operating income. Fixed and variable costs are the two types of operating costs; depending on the firm and the industry, the mix will differ. Too much

debt can be dangerous for a firm and its investors. However, if a firm's operations can generate a higher rate of return than the interest rate on its loans, then the debt is helping to fuel growth in profits. Nonetheless, uncontrolled debt levels can lead to credit downgrades or worse. On the other hand, too few debt can also raise questions. A reluctance or inability to borrow may be a sign that operating margins are simply too tight. There are several different specific ratios that may be categorized as a leverage ratio, but the main factors considered are debt, equity, assets, and interest expenses.

2.6 Previous Studies

Several empirical studies confirm a positive link between cash holding and firm value. Many related studies explored whether cash holding have some certain relationship with firm value. Bambang Sutrisno in 2017, this research using by data from Indonesian Capital Market Directory (ICMD) and also using Chow Test and Hausman test found out that there is positive relationship between cash holding and firm value in manufacturing firms in Indonesia. Another researcher, Azmat Qurat-ul-ann had research in 2014 found that there is positive and significant affects between cash holding and firm value using Tobin's Q ratio and the data is came from all listed Pakistani firms. Tiago Rodrigues Loncan and João Frois Caldeira in 2012 using Brazillian Stock Market since 2002 found there is increasing in linear form with cash holding using Fixed Effect Estimator. Research conduct in Malaysia

with 192 firms from 2000 until 2007 showed that firm with more growth opportunities, higher cash flow, less liquid substitutes, less capital and R&D expenditures will hold more cash compare to opposite characteristics. This research conduct in Malaysia based on Shaista Wasiuzzaman in 2012. Research in 2016 conduct by Arief Yulianto, Deky Aji Suseno and Widayanto that held in Indonesia using 46 companies as sample between 2008 until 2009 show that pecking order theory have proves that cash holding and firm value have significant effect compare to trade-off theory model. Firm value and cash holding also research by Do Thi Thanh Nhan in Vietnam resulted that using pecking order theory there is an increasing of cash holding related to the firm valuation using pecking order theory that use in company in Vietnam. Research by Aleksandar Naumoski in Macedonia on 2018 found supportive evidence of a pecking order theory of cash holding according to which the firms do have a cash holding regulation is positively affect. Pinkowitsz, Stulz, and Williamson (2006) research about relation between cash holding and firm value in the context of corporate governance throughout 35 countries as sample. The result from this research show that compare companies in countries that not protect their investor will have lower relation in firm value and cash holding compare to the companies in the countries that well protect their investor which result in higher relation. Martinez-Sola, Garcia-Teruel, and Martinez-Solano (2013) already tested the relation and effect of cash holding and firm value in United States and the result found that there is a positive relationship between cash holding and firm value in the research. Cao and Chen in 2014 found out that there is linear relationship between cash holding and firm value in China.

Furthermore, research by Tiago Rodrigues Loncan and João Frois Caldeira in 2014 about study capital structure, cash holding and firm value in Brazilian Listed Firm is accept the relationship between cash holding and firm value using based of agency theory. In this research, agency theory positively significant the relation between cash holding and firm value.

2.7 Research Hypothesis

The trade-off theory states that there is a balance between cost and benefit in any corporate decision-making (Myers and Majluf, 1984). Companies need to consider the costs and benefits of holding cash (Kim, Mauer, & Sherman, 1998; Opler, Pinkowitz, Stulz, and Williamson (1999). The trade-off theory's main idea is that a firm chooses how much debt finance and how much equity finance to use by balancing the cost and benefit. An important purpose of the theory is to explain the fact that corporations usually are financed partly with debt and partly with equity. One of the firm's decisions is the level of cash holding. The relation between trade-off theory and cash holding into firm value is that in optimum level of cash holding will have an impact to the firm value. Optimum level of cash holding is determine by the firm itself. The optimum level is define when the cash holding of the firm can cover the cost of the firm to operate the firm. Optimum level of cash can also differ from each industries because the necessity of the firm.

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there is no optimal cash rate (Myers and Majluf, 1984;Azmat, 2014). This theory represents a linear relationship between cash holding and firm value. The cash balance is used as the basis for determining the retained earnings and the level of investment required by the company. According to this theory, cash balances are merely the result of financing and investment policies. A linear relationship occurs when constant increases in cash holding increase the value of the firm and vice versa. The cash balance is used as the basis for determining the retained earnings and the level of investment required by the firm. According to this theory, cash balances are merely the result of financing and investment policies.

The agency theory was first proposed by Jensen and Meckling (1976). This theory can be used to understand the relationship between cash holding and firm value. Cash holding relates to agency theory because high cash holding can causing agency conflict (Jensen, 1986). Cash holding tends to be misused by managers for their own sake. Conflict of interest between the main objectives of management that is to improve the welfare of shareholders with the manager's personal interests to improve their own welfare.

Research related to cash holding and firm value has been done by Pinkowitsz, Stulz, and Williamson (2006) research about relation between cash holding and firm value in the context of corporate governance throughout 35 countries as sample. The result from this research show that compare companies in countries that not protect their investor will have lower relation in firm value and cash holding compare to the companies in the countries that well protect their investor which result in higher relation. Martinez-Sola, Garcia-Teruel, and

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Cash holding consider be one of the indicator to observe by the investor. High cash holding level of the company can be consider that the firm itself have much more ability to extend their business and also fulfil their operation. High cash

holding can be define that firm itself have the ability and great prospect to payout dividend of the shareholder. One of this assurance that investor can assume with high cash holding firm will attract more investor to buy the share of the company. The increase of the share price of the companies will impact also in value of the firm throughout the share prices multiply with the shares outstanding by the firms. Cash holding eventually will relate to the firm value through the increase of share price by the firm. Observing the increase of the share price because of the action by the investor to buy the share of the firm through observe one of indicator which is cash holding level of the firm can affirm that cash holding effect the firm value of the companies.

Pecking order theory is a theory that applicable in Indonesia considering previous research by Bambang Sutrisno research in 2017 about relationship between cash holding and firm value of manufacturing firm in Indonesia. Pecking order theory that imply in the previous research in Indonesia already affirm the applicable of the theory in Indonesia, that cash holding and firm value have positive relationship each other referring to the research. Another research conduct in 2016 by Arief Yulianto, Deky Aji Suseno and Widiyanto testing the pecking order theory models in public companies in Indonesia show there is positive and significant result between the cash holding own by the firms to its firm value. Arief Yulianto research verify the applicable of pecking order theory in public companies in Indonesia. Firm value and cash holding also research by Do Thi Thanh Nhan in Vietnam resulted that using pecking order theory there is an increasing of cash holding related to the firm valuation using pecking order theory that use in company

in Vietnam. Firm valuation is one of the determinant of corporate cash holding. With similar topics there is research conduct by Mohsin Shabbir, Shujahat Haider Hashmi and Ghulam Mujtaba Chaudhary found out that pecking orders is a become one of the positive significant role in explaining the determinants of corporate cash holding through firm value. Research by Aleksandar Naumoski in Macedonia on 2018 found supportive evidence of a pecking order theory of cash holding according to which the firms do have a cash holding regulation is positively affect.

Cash holding effect the firm value through the increase of share price. Share price increase by the result of investor reaction from observe the cash holding of the company. Investor expect when the company have abundant amount of cash in their account should correlate with the performance of the company to finish the job or expand their business. This expectation that build by the investor will increase the price of company's share in market. Domino effect that the increase of cash holding in the company create expectation by the investor and then share price of company will increase and so the value of the company will also increase by times of share prices of the company and tradeable shares own by the company in the market. According from the previous research, researcher can conclude that pecking order theory model is applicable in Indonesia and can be base of the theory to support the hypothesis conclude by the researcher.

Based on the framework above a hypothesis is constructed :

H : There is a positive effect of cash holding to firm value