

CHAPTER II

THEORITICAL BACKGROUND

2.1 Introduction

This chapter provides deep information about the subject. In order to achieve this, an extensive literature study into the academics regarding the disposition effect has been conducted. This chapter also explains some theories about the Efficient Market Hypothesis (EMH) theory, the concept of behavioral finance, disposition effect, blue-chip stock and also some previous study about factors that indicate the existence of disposition effect.

2.2 Theoretical Basis and Definition

2.2.1 Efficient Market Hypothesis (EMH)

Many decades ago, Efficient Market Hypothesis (EMH) theory was accepted by all financial economist. A market is said to be efficient if the current stock price in the market fully reflect the information available in the market about the value of the firm and the real economic condition (Fama, 1970). In an efficient market, there is no chance to get excess profits by using the information available. All investors in the capital market are expect for an efficient market, if the market is efficient it will be easier for the investors to decide how to behave in order to get abnormal return

According to Fama (1970), there are three categories of Efficient Market Hypothesis. These are categorized based on the amount of information available. Here is the explanation of each category:

a. Weak Form Efficiency

The weak form of efficiency market hypothesis means that the stock price fully reflects the historical information including, historical price, trading volume and the short-term interest rate. Analyzing the historical information only cannot make others to detect the mis-priced and “beat” the market. On the other hand, nowadays many investors try to use the historical price and trading volume to predict the price, this technique called technical analysis.

b. Semi-strong Form Efficiency

The semi-strong form efficiency suggests that the all publicly information fully reflects by the stock price. All publicly information not only include the historical price, trading volume and interest rate, but also includes the data reported in a company’s financial statement (annual reports, income statements, etc.), earning and dividend announcement, announced merger plans, the financial situation of a company’s competitors and the macroeconomic factors such as inflation, unemployment rate and others. If the investors get all of the information, will be easier to predict the price. Semi-strong efficiency market requires the expert market analyst to analyze about the information available. In addition, gather public information is quite difficult and costly.

c. Strong Form Efficiency

The strong form efficiency states that all of the information, including unpublished information fully reflects by the stock price. This kind of market is expected by all investors. The strong form of EMH states that people that include in a company's management (insiders) are not able to gain profit systematically by purchasing the company's stock like about ten minutes after the management decide (but did not publish yet).

According to Andrianto and Mirza (2016), Indonesia stock market classified as weak form efficiency. So that, investors cannot predict future stock price by using historical data. In this market condition, most investors will do buy and sell based on the historical data which does not necessarily reflect the current market situation. If the investors want to predict the future price and return, will be better to not use historical data as a reference to make financial decisions. An investor can use fundamental analysis, which looking at the performance of the company.

2.2.2 Behavioral Finance

Some theorist believe that investors' decision not only influenced by fundamental or technical aspects, but also investor's behavior, that is why many research about behavioral finance has been conducted. Behavioral finance is a combination between sociology, economics and psychology. From the psychological aspect, it helps to understand group or individual behavior when making appropriate investment decision. The economic aspect help to understand the risk and return for the investors.

Most investors are intelligent people, not irrational or insane, but behavioral finance tells that as a normal human that has brain and emotion, sometimes with brains that are full and overflowing emotion, investors can be smart at times and stupid at others. (The Wall Street Journal, 2009). The basis of behavioral finance is formed by four key themes, (i) Heuristics, (ii) Framing, (iii) Emotions and (iv) Market Impact (Shefrin, 2000).

a. Heuristics

Heuristics are defined as rule of thumb, this key applies in decision making in order to reduce the cognitive resources to solve a problem. Choosing the best alternatives by applying heuristics like representativeness, anchoring & adjustments, familiarity, overconfidence, regret aversion, conservatism, mental accounting, availability, ambiguity aversion and effect called as rule of thumb.

b. Framing

People's perceptions are strongly influenced by their reference. There is a possibility of the existence of a right answer to a wrong question, but there is no possibility of a wrong answer to a right question. The decision making of one investor is always based on the information available.

c. Emotions

The decisions made by human beings are driven by the unconscious needs, fantasies and fears. Sometimes physic reality is determined by human's feeling which affect the investment judgment emotions. (Akerlof and Shiller, 2009).

d. Market Impact

Market is divided between rational and irrational investors, so that the economist interest to study the influence of emotional judgments on financial markets. (Shleifer and Robert, 1997; Barberies and Thaler, 2003). Studying about investor's emotion when make decision is something important because the irrational behavior could lead to inefficient market.

2.2.3 Prospect Theory

Prospect theory was initiated by Kahneman and Tversky (1979). Prospect theory considered as the basic assumption that form bias in financial behavior, this theory assumes that losses carry more emotional impact than profit, even though at the end the result is not really different. According to prospect theory, there are three implications, such as:

1. The investors evaluates the return not based on the total returns earned but based on the perceptions of gains and losses against the reference point.
2. Investors are more sensitive to losses rather than gains even though the amount is same (loss aversion).
3. Investors become risk-averse when making a profit and become risk-seeking against losses (Tversky and Kahneman, 1992)

So can be said that prospect theory has an irrational tendency to be more reluctant to sacrifice the losses rather than gains. Risk aversion make traders realizing the profit too quickly in order to avoid the profit turn into loss. Meanwhile,

risk seeking make the traders have more passion to hold the losers stock and expect the stock price will increase and generate bigger returns. Thus, induces the existence of disposition effect.

2.2.4 Disposition Effect

Disposition effect disclosed by Shefrin and Statmant in 1985. Disposition effect also related with prospect theory which disclosed by Kahneman and Tversky (1979). Disposition effect is an anomaly discovered in behavioral finance. It relates to the tendency of investor to sell the winner stock too early and hold loser stock too long. Mean that when the stock price increase, investor start to sell the stock without consider about any other information. Even though the stock price has possibility to increase more than before, but because some investors still sell the stock. Investor do this action because some of them afraid if the profit will turn into loss if they are not sell the stock as soon as possible when price is high.

Mostly investor become risk averse when the stock price getting higher but the investor will become risk seeking when the stock price getting lower. Illustratively, when the stock price start to increase, there will be a possibility that the stock price will getting lower or getting higher than before. If investor become risk averse, the investor will sell the stock as soon as possible without thinking that the stock price will increase more, the investor only think that they have to sell the stock because there is still the possibility of stock price will go down. Sometimes investor who sell the stock does not have enough information, the investor do not know what makes stock price start to increase so they do not know whether the

increase will continue or stop and turn into a decline. If investor become risk seeking, when the stock price getting down, investor will still hold the stock with the expectation the stock price will increase again.

Sheftin and Statmant (1985) also propose two factors that can explain disposition effect, avoiding regret and seeking pride. In order to avoid regret, some investors hold the loser stock too long and expect that the stock price will increase, but when the stock price increase, investors will sell the stock as quickly so when the stock price decrease because of some reasons, investor still feel proud because they already sell the stock and get the profits (Fogel and Berry 2006). The other research conducted by Weber and Welfens (2007) analyzed investor trading behavior in stock market and found that investors hold the loss too long and realized the profits too early. In the other words, investors who hold the loss too long do not succeed in trading, while success investor is the one that hold the loss in a short time. Almost all investors experience a disposition effect in which investors hold the loser stock longer than the winner stock (Odean, 1998).

As mention previously, one of the factors that affect the behavior of disposition effect is loss aversion behavior. Kahneman and Tversky (1979) found that investors are reluctant to accept losses from the investments, it makes investors become more risky while experiencing losses and tend to avoid risk when experiencing profits. Furthermore, the research conducted by Muermann and Volkman (2006) investigate the disposition effect in foreign exchange trading, the result of the research stated that the behavior of avoiding regret push the investor to hold the foreign currency in the loss position in a longtime and the investors

assume the value of foreign exchange will recover. On the other hand, the behavior of seeking pride encourages investor to sell the foreign exchange as quick as possible.

Goo et al. (2010) also conducted a research about disposition effect in Taiwan stock market, the research shows some findings: (1) only 26% of Taiwanese individual investors reported earnings in bull condition, (2) education level affect disposition effect, the research found that undergraduate people have low disposition effect behavior, (3) the status of gains or losses is also related to the disposition effect. Avoiding regret, maximizing profits and seeking pride are three elements highly correlated to disposition effect.

The other research about disposition effect also conducted by Choe and Eom (2009) in Korean futures market, the research found that individual investors are more susceptible to disposition effect than institutional investors and foreign investors, disposition effect is stronger in long position trading and the last result of the research is disposition effect and investment performance has negative relationship, which mean if the probability of the occurrence of disposition effect increase, the investment performance will decrease.

According to Dhar and Zhu (2002), individual investors on average experience disposition effect, but wealthy and professional investors do not experience disposition effect. Moreover, investors who active in trading tend not to experience disposition effect. This shows that repeat trading experience help investors to minimize the disposition effect. Further, Chen et al. (2007) explains

that investors who active in trading only make a little mistakes when making a transaction, this kind of investor tend to have rational behavior.

2.2.5 Blue-chip Stock

Stocks can be grouped into several types. Blue-chip stocks or also known as glamor stocks are a set of stocks that are grouped by performance. Blue-chip stocks are commonly mentioned as growth stock. Blue-chip stock is different with value stock. According to Damodaran (2006), blue-chip stocks have low dividend yield and high price to earning ratio, price to book-value ratio, price to cash-flow ratio and size. Blue-chip stocks are the stocks that the price has a tendency to rise above the average price, this kind of stock will attract more investors to buy.

Sometimes blue-chip stocks are issued by the leader of the industry. The return resulted from this stock often above average. As mention previously, these stocks usually have a high price to earning ratio (PER). The market see the stock as highly valued stock by looking from the PER. Price to earning ratio (PER) is the stock market price divided by earning per share. Moreover, companies that issued blue-chip stocks usually have good reputation. The companies that issue blue-chip stocks have beta value at least 1.5 or more.

2.3 Previous Research

Some researcher already done some researches about the disposition effect. The result of the research shows that disposition effect exist in the market and there are some factors that affect the disposition effect. Here's some researches about related topic:

a. Hersh Shefrin and Meir Statmant (1985)

The method that used in this research is Kahneman and Tversky's approach. This research concerning a general disposition to sell the winners too early and hold losers too long. The elements that include in this research are mental accounting, regret aversion, self-control and tax considerations. This research conclude that when the stock price, investors sell the stock quickly, but if the stock price decrease, investors will hold it for a long time and expect the stock price will increase.

b. Andrea Frazzini (2006)

The purpose of this research is to test whether disposition effect induces under-reaction to news and leading to return predictability. The method that used in this research is the calendar-rolling times method, the result shows that disposition effect exist in stock market, when experience losses, investor tend to hold the losers stock resulting in negative news.

c. Matteo Ploner (2017)

This research investigate about disposition effect and the result confirm the existence of disposition effect in a simple risky task and when choices are taken sequentially. This research also stated that more risk is borne after an investment loss than before it (Imas, 2016).

d. Salma Zaiane (2013)

The result of this research show that there is positive relationship between trading volume and volatility, it means disposition effect does not exist in Shenzen Stock Market. High volatility indicate that the

market is inefficient and lead to the occurrence of bias. Volatility closely related to return, if disposition effect exist in the market, when the return decrease, the trading volume constant and even increase.

- e. Yeong-Jia Goo, Dar-Hsin Chen, Sze-Hsun Sylcien Chang, and Chi-Feng Yeh (2010)

According to this research, only 26% of Taiwanese individual investors reported earnings in bull condition, undergraduate people have low disposition effect behavior, and the status of gains or losses is also related to the disposition effect.

2.4 Theoretical Framework

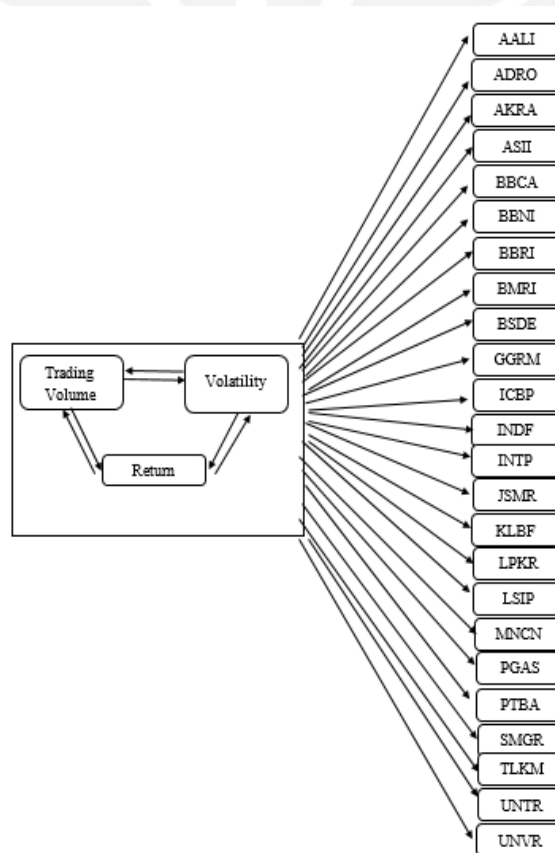


Figure 2.1
Conceptual Framework of the Study

2.5 Hypothesis Development

According to the traditional finance theory, markets are efficient and investors are rational in making decision to maximize the utility, but in fact not all investors are rational. Some investors behave irrationally in order to get abnormal return. One of irrational behavior done by the investors is selling the winner stock too early and hold the loser stock too long or define as disposition effect. Disposition effect can cause the market to be inefficient. That is why research about irrational behavior in stock market is important to conduct.

Disposition effect firstly disclosed by Shefrin and Statmant (1985). This research stated that some investors are rush to sell the stock when the price increase and hold the stock too long when the price decrease. Some investors do this because scare if the profits turn into losses if not quickly realized. When investors hold the loser stock too long, it will bring more risk to themselves. Imas (2016) stated that losers stock contain more risk than winner stock. Disposition effect also exist in Korean futures market, Choe and Eom (2009) found that disposition effect done by individual investors and disposition effect also has negative relationship with investment performance.

Contrast with many researches, Salma Zaiane (2013) found that disposition effect does not exist in Shenzhen Stock Exchange. This research found there is positive relationship between volatility and trading volume. If disposition effect occur, when return decrease, trading volume will remain the same or even increase. From several studies above, can be seen that there is a tendency of disposition effect in stock market and individual investors are more susceptible to disposition effect.

Furthermore, there is also another research that found disposition effect does not exist in stock market. That is why this topic is interesting to be examined. Based on the support of literature review conducted, can be formulated hypothesis as follows:

H1: There is a disposition effect on stocks that always listed in LQ45 from the period 2013 until 2017

The theory of investment stated that return has positive relationship to volatility, volatility reflects risk from one investment. The higher the return, the higher the volatility. So the indication of disposition effect is negative relationship between return and volatility. Goetzmann and Massa (2008) found the existence of disposition effect, this research found that an increase in standard deviation reduce the stock return.

H2: Return has negative relationship to volatility when the disposition effect occurs on stocks that always listed in LQ45 from the period 2013 until 2017

According to asymmetric information theory, when an investor have more private information, the investor will make a transaction based on the private information, means that the more private information owned by the investor, the more transaction they make, and the volatility also getting higher because of the private information owned by the investor, but if disposition effect exist, the indication is trading volume has negative relationship to volatility. According to Sukamulja (2002), the number of transaction significantly positive influence the stock price volatility in Jakarta Stock Exchange (JKSE). The research from Salma Zaiane (2013) found that disposition effect does not exist in Shenzhen Stock

Exchange. Goetzmann & Massa (2008) also found that trading volume decrease and the volatility increase when ‘irrational’ investor trade in a stock.

H3: Trading volume activity has negative relationship to volatility when the disposition effect occurs on stocks that always listed in LQ45 from the period 2013 until 2017

Trading volume activity has positive relationship with the return. When the trading volume activity getting higher, it means the demand of the stock also increase, the price of the stock is very sensitive to the demand. The higher the demand, the higher the stock price and the result is the stock return also getting higher. The research from Salma Zaiane (2013) found that trading volume is not related to past market returns, this result is evidence of the invalidation of the disposition effect. In contrast, Hmida and Boussaidi (2017) found the existence of disposition effect in Tunisian Stock Market and the indication is negative relationship between trading volume and stock return. Based on the support of the literature review conducted, can be formulated hypothesis as follows:

H4: Trading volume activity has negative relationship to return when the disposition effect occurs on stocks that always listed in LQ45 from the period 2013 until 2017