## CHAPTER 2

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Information content theory

Information is an important element for investors. Complete, relevant, accurate, and timely information is needed by investors in the capital market as an analytical tool for making investment decisions. This kind information that changes the investor decision and will often impact to share price at market. Information content theory can be proven if there is a market reaction, if there is a market reaction it can be said that an announcement contains information content, conversely if there is no market reaction at all, it can be concluded that an announcement does not have information content.

Jogiyanto (2016: 625) explains that testing the information content and testing the efficiency of the semi-strong form of the market are two different tests. Testing the information content is intended to see the reaction of an announcement. If the announcement contains information content, it is expected that the market will react when the announcement is received by the market. Market reaction is indicated by a change in the price of the security that involved. This reaction can be measured by using return as the value of price changes or by using abnormal returns. If an abnormal return is used, it can be said that an announcement that contains information will give an abnormal return to the market. Conversely, those that do not contain information do not provide abnormal returns to the market as shown in Figure 2.1 below:


FIGURE 2.1 INFORMATION CONTENT OF AN ANNOUNCEMENT

Information content testing only tests the reaction of the market, but does not test how fast it reacts. If the test involves the reaction speed of the market to absorb the announced information, then this test is a semi-strong form of informationally efficient market test. The market can be recognized as semi-strong form of efficiency if investors react quickly to absorb the abnormal returns so they can move to a new equilibrium price. If investors absorb abnormal returns slowly, then the market is said to be semi-strong form of inefficiently informally.

Another conclusion rejects the efficient market if there is no abnormal return. The reason is that if an announcement contains no information, how can it be concluded so easily that the market is as semi-strong form of efficiency informally. Not causing an abnormal return can imply that investors do not react, because the reaction of investors to the new information is shown by this abnormal return. How can it be concluded that if investors do not react, it can be said that the market is efficient, half the form of information
is strong? It can be concluded that for an announcement that does not cause an abnormal return will make the conclusion of the efficient market is unclear and unanswered.

From the statement above, it can be concluded that testing the information content is intended to see the reaction of an announcement which is indicated by a change in the price of the security.

### 2.2 Earnings Per Share

Earnings Per Share (EPS) is a comparison between the income generated (net income) and the number of shares outstanding. Earnings per Share (EPS) describes the company's profitability as reflected on each share.

Tandelilin (2007: 241). Earnings Per Share is a ratio that shows the amount of the company's net profit that is ready to be distributed to all shareholders of the company. Samsul (2006: 167), investors who buy the company's prospects, which are reflected in earnings per share, if the earnings per share is higher, the company's prospects are better, meanwhile, if the earnings per share are lower, it means that it is not good. (Herlinha and Hadianto, 2007) in Hadianto (2008: 164), a larger EPS indicates a greater company's ability to generate net profits for shareholders, this situation will push the share price to increase.

Syafri (2008) Earning Per Share (EPS) is a ratio that shows how much the ability of a share to generate profits. Earnings Per Share reflects the income per share that will be earned by shareholders. Earnings per share is obtained from the comparison between net income after tax in one year and the number of shares issued. Earnings Per Share is mathematically formulated as follows:

$$
E P S=\frac{\text { Net income after tax }}{\text { Number of shares outstanding }}
$$

Tripton Darmdji and Hendy M. Fakhrudin (2001) explain that what is meant by Earning Per Share is, "the ratio that shows how much profit (return) is obtained by investors or shareholders per share." The higher the by Earning Per Share value, the better because the higher the EPS value mean the greater the profit provided to shareholders. in theory if Earning Per Share increases it will cause a positive reaction from the market, this can make the stock more attractive. If the stock is attractive, many investors will invest and cause the stock price to rise which will provide a higher return, this can cause a return above expectations or what is called an abnormal return.

### 2.3 Return

The purpose of investors in investing is to get returns. Return is one of the factors that motivates investors to invest and is also a reward for the courage of the investor to take the risk of his investment. There are 4 types of return that explained in this study, they are required rate of return, realized return, expected return and abnormal return.

Required rate of return is the minimum return required by investors to invest in certain securities. The return required by investors depends on the estimated future cash flows they will receive. Because there is uncertainty about future cash flows, the required return must be estimated. In addition, the required return may differ between investors because it depends on each investor's forecast of future cash flows. As a result, the company's cost of equity may differ from the returns required by investors. However, the cost of equity companies are often used as required return by investors.

Realized return is the return that has been obtained by investors in the past. When an investor invests his funds, he will require a certain rate of return. If the investment period has passed, the investor will be faced with the real rate of return he received.

The expected return is the return that investors anticipate in the future. Expected return is a nominal return that will cause investors to invest in an asset based on a risk-free interest rate, estimates the inflation rate, and the expected risk premium for the risk of the asset.

Expected return is a return whose value must be estimated with all the possibilities that occur. By anticipating all the possibilities that could occur, this means that not only a future outcome will be anticipated, but it is necessary to anticipate some future results with a possible probability of their occurrence.

The expected return can be calculated using three estimation model (Jogiyanto, 2010) without adjusted risk, they are:
a. Mean Adjusted Return

Stock return random near the actual price, and the market is efficient.
b. Market Model Return

Could be done both by establish the expected model by using realization data during the estimation period, and using the expected model to estimate expected return in the window period.
c. Market Adjusted Return Model

The study will use this model. This model concludes that the best assumption to estimate the stock return is from the market index return on that exact time (event time). By using this model, there is no need to create an estimation of time model, all that need to be done is to determine the observation time for each year, since estimated expected stock return are equals to the market index return.

To calculate expected return with Market Adjusted Return Model use this formula is:

$$
R M_{t}=\frac{I H S G_{t}-I H S G_{t-1}}{I H S G_{t-1}}
$$

$$
E\left(R_{i, t}\right)=R M_{t}
$$

$R M_{t} \quad:$ Market return
$I H S G_{t} \quad$ : Index Harga Saham Gabungan in t period
$I H S G_{t-1}$ : Index Harga Saham Gabungan in $\mathrm{t}-1$ period
$E\left(R_{i, t}\right) \quad:$ Expected Return stock i period t

Abnormal return is a term used to describe the returns generated by a given security or portfolio over a period of time that is different from the expected rate of return. An abnormal return can be either a good or bad thing, as it is a summary of how the actual returns differ from the predicted return. Abnormal return is the advantage of return that actually occurs against normal return. The normal return is the expected return (the return expected by investors). The simple equation is actual return minus with expected return, if it's positive, then the amount of return that we actually get is more than what we expect.

Certain event could lead to changes in abnormal return too, which is the main reason why there is abnormal return which later lead to market reaction. Alwi (2003) tried to analyse Indonesian capital market reaction in accordance to bomb incident in Bali. Actually, the research shows that there is no significant difference in abnormal return between before and after the event. Setyawan (2006) also study this using the sudden increase in gasoline price, but the same result also shown. From those researches in

Indonesia, it could be concluded that the factors affecting abnormal return is still vague. Big event doesn't even budge the abnormal return rate to an extreme condition. All that is left is that information released from the company which investors already invested in, since it can be considered as a direct impact.

### 2.4 Previous Study

Ball and Brown (1968) state that earnings information has information content as evidenced by a positive abnormal return in the sample group that has increased profits and negative abnormal returns in the sample group whose earnings have decreased. Similar research was conducted by Beza (1997), Sheila Virginia (2013) and Ratna Novaliyanti (2007)

Beza (1997) concluded that the market reacts to the publication of annual financial reports as indicated by a significant increase in stock trading volume when the financial statements are published. Sheila Virginia (2013) use the EPS as independent variable and said that the announcement itself have impact to market but not big. Ratna Novaliyanti (2007) said that the EPS and DER partial does not have significant impact. So there is 3 study that said that EPS significantly impact the abnormal return and 1 does not.

### 2.5 Research Hypothesis

When the financial report that has been published and received by market contains information content, it is expected that the market will react. Market reaction is indicated by a change in the price of the security that involved. The market reaction can be measured by using abnormal returns. If that an announcement that contains information will give an abnormal return to the market.

Ratna Novaliyanti (2007) did the research about the financial performance (EPS, NPM, DER, ROA) to abnormal returns. The analysis shows that the financial performance variables (EPS, NPM, DER, ROA) have a significant effect on abnormal returns. Partially, the ROA variable has a significant effect on abnormal returns, while other variables do not have a significant effect.

Another previous research has different result. Sheila virginia (2013) did research about the effect of earning announcement to abnormal return, with EPS as independent variable. Back in 2009 and 2010 the capital market in Indonesia is not efficient in terms of information and decisions. The result was in 2009, markets reacted 9 days while in 2010 markets reacted 5 days after the announcement date. As we can see, although the reaction slow but the next year reaction became faster. It means that the announcement itself have impact to market. As we can see there is differences on result in both researches.

Like previous study, in this study Earnings per Share will be focus of the part of financial report. In theory, If the EPS is information content then when it rises, investors will process the information and perceive that the company's future conditions will increase and investor hope that the dividends received by them will increase. Therefore, investors tend to buy shares of companies that announce an increase in EPS. The demand of the stock will increase and the price also increase mean that the return also increase.

There is possibility the return that increase can be exceed the expected return which causes plus abnormal return.

When EPS falls, investors perceive that the company's future condition will decline so that it will sell its shares, which causes the stock price to rise or fall. Changes in stock prices cause the actual return received by investors to be different from the return they expected. As a result, a minus abnormal return arises as a form of market reaction. Those it can be conclude that when EPS rise the abnormal return will increase and if EPS fall the abnormal return will also decrease.

Considering those, the hypothesis is developed as follows:

## H1: EPS of a company positively impact abnormal return.

