

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1. Theoretical Review**

##### **2.1.1. Market Efficiency Hypothesis**

Efficient Market Hypothesis is called as informational efficient markets, stock prices fully reflect all the relevant information that is available in the market about a stock (Sathyanarayana & Gargesha, 2017). The statement above was stated by Fama (1965), he said that in an efficient market, on the average, competition will cause the full effects of new information on intrinsic values to be reflected "instantaneously" in actual prices. According to Clarke et al. (2001), the main engine behind price changes is the arrival of new information. A market is said to be "efficient" if prices adjust quickly and on average without bias to new information. As a result, the current prices of securities reflect all available information at any given point in time. The statement above was also stated by Fama (1970), he said that efficient stock market is a market in which the available information can be reflected totally on the stock price. A market in which prices always "fully reflect" available information is called "efficient".

Efficient Market Hypothesis is divided into three forms. The first form is weak-form efficiency. Weak-form efficiency happens when the current stock prices fully reflect all security market information, the information includes the history of the price, rates of return, trading volume data, and other market-generated information (Brown & Reilly, 2009). Information from historical price is used to test this form of efficiency (Fama, 1970). The second form is semi strong-form efficiency. It happens when the current stock

prices fully reflect all available public information (Brown & Reilly, 2009). According to Fama (1970) the semi strong-form tests concerns on whether prices efficiency adjust to other information that is obviously publicity available (announcements of annual earnings, stock splits, important news, etc.). The third form is strong-form efficiency. It happens when the stock prices reflect both public and private information (Brown & Reilly, 2009). For the strong-form test, it concerns with whether given investors or group have monopolistic access to any information relevant for price information which are reviewed (Fama, 1970).

### **2.1.2. Abnormal Return**

The company will earn the normal return when the company was not influenced with any factors. It is supported by Peterson (1986) statement, he said that the normal returns “are those returns expected to be observed if no event occurs”. That moment occurs when there is no excess beyond the prediction of their earning and it can be calculated from the time period that falls outside the event period and it can be calculated by using the mean-adjusted model, which assumes that average stock index returns during the estimation window which are constant.

As mentioned above, the company that does not affect by any events will earn a normal return, besides the company influenced by the events will produce the abnormal return. While according to Jogiyanto (2007) to produce the abnormal return, the new event should contain information. Stock market can be measured by abnormal return. The abnormal return (AR) for a stock refers to the difference between actual return and normal return for a stock over a selected event window (Peterson, 1986).

If the announcement of international sporting event containing information, then it will be produce abnormal return to the host country's stock market. The reaction showed by the changes of the price of the stock that observed. The abnormal return is positive when the return is higher than the expected return, in the opposite the abnormal return is negative when the return is lower than the expected return.

### **2.1.3. International Sporting Events**

The announcement of International Sporting Event is considered as good news for the hosting country (Benkraiem et al., 2009), because when the country become host of the international sporting event they should increase their infrastructure to fulfill the facilities of tournament, in this case the stock market of infrastructure sector will also increase. The stock price of beverage, hotels, and another hospitality sector also will increase, because the host country will serve the guests properly by giving them good service of hotels, foods and hospitality. From above reasons are good to host country's investment.

The theory above is proved by the previous research by Martins & Serra (2007), the examined the impact of the announcement hosting country for International Sporting Events that can influence and produce the abnormal return to stock price. They found that by taking the sample from the Summer and Winter Olympic Games, the World Football Cup, the European Football Cup and World and Specialized Exhibitions, they found that the abnormal returns occurs in the announcement date of the International Sporting Events. In another study also found that during the FIFA World Cup periods, the US stock market showed a negative abnormal return (Kaplanski & Levy, 2010). It proves

that the announcement of International Sporting events caused the abnormal return to the stock market of hosting country, whether negative or positive abnormal return.

Not only the stock price of the host country that influenced by the announcement but also it will give the economic and social effect. According to Yu (2004), in ASIAN Games 2002, the Games-related expenditure would add a total of 11.2 trillion won (HK\$72.8 billion) to the South Korean economy. However, the White paper did not provide the timeframe for the realization of the full economic impact, nor did it provide any estimate of the contribution of the Games-related expenditure to the annual GDP growth. Tien, et al. (2011) examined possible economic objectives, such as boosting GDP performance, reducing unemployment, and attracting investment. It proved in their study that the economic impact of the Olympic Games on the host countries is only significant in terms of certain parameters such as GDP and reducing unemployment in the short term.

In other side, international sporting event has further social effects benefiting local communities (Tien et al., 2011). It was proved by Yu (2004) by looking at to the post-Games report of 2002 Asian Games, the volunteer program saw the recruitment of 17,096 volunteers that work in 31 areas, ranging from interpretation and translation to the operation and administration of the Games. Busan has implemented a post-game volunteer programmed which aims to maintain contact with game volunteers and encouraging them to take further volunteering activities. The programmed also provides volunteers with training and opportunities to participate in overseas volunteer work.

#### **2.1.4. Stock Market Reaction**

There are many factors that can influence the stock market, it can be positive or negative impact to the stock price. The performance of the stock market is influenced by economic, non-economic and political events. The macroeconomic variables such as interest rate, inflation, monetary and fiscal policy affect the stock market as a whole, while the microeconomic variables affect the performance of individual firms (Nazir et al., 2014). According to Ismail & Suhardjo (2001), Non-economic events such as earthquakes, floods, plane crashes and natural catastrophes may also have a significant effect on the country's economy. The impact of these natural disasters may be contagious and they not only affect the country's economy but also the global economy as a whole. The world's deadliest tsunami in December 2004 spread destruction in almost 11 economies of the world.

The reaction of stock markets to good and bad news also needs to be considered. According to Chan (2001), he tested about the stock price reaction to news and no-news with the result stocks that had bad public news and also display negative drift. He interpreted that prices are slow to reflect bad public news. The second result of Chan's study, stocks that had no news stories in the event month, tends to reverse in the subsequent month. Studies by Benkraiem et al. (2009) showed that the stock market reacts positively to good news. Based on their study, it is based on the views on sporting events as examples. Therefore, stock markets appear to be receptive to positive news and, as a result, produce a positive reaction. Positive or negative abnormal returns would reflect that investors anticipate this (unexpected) news to have a positive/negative valuation effect on the market capitalization of listed firms (Fama, 1965).

### **2.1.5. International Sporting Events and Stock Market Reaction**

The announcement of hosting country for international sporting events is causing the market reaction for the host itself. Alternatively, market reaction to winning news could reflect a national positive sentiment caused by pride, self-esteem or joy associated with the fact that the country was chosen to host worldwide broadcasted and recognizably important event. In contrast, the first explanation assumes that investors are rational and predicts that, when sentiment is not associated with any tangible economic effects, this news will produce no effect on market prices (Martins & Serra, 2007).

In the explanation above, it is mentioned that there is several benefit of hosting the International Sporting Events on the economics of the country by increasing the GDP, the unemployment and also the demand of the buyer. The economics benefit also will influence the stock market. According to Martins & Serra (2007), a positive or negative overall economic impact, individual stocks (and industry indices) may register positive abnormal returns. Veraros, Kasimati & Dawson (2004) examined the effect of the announcement news of the hosting city for the 2004 Olympic Games on the stock exchange of Greece and Italy and find a significant positive effect on the Athens Stock Exchange as well as on the stock prices of infrastructure-related companies, but it tends to be a bad news also to the several countries. Kaplanski & Levy (2010) found that during the FIFA World Cup periods, the US stock market showed a negative return.

In the other hand, there are difference statements from the previous study. Stock market impact is not the same thing as overall economic impact. Host country stock

markets do not support a positive reaction in stock market returns to positive economic information. Anton et al. (2011) analyzed the economic effect of the International Sporting Events to the hosting country by observing the fluctuation of the GDP as a key of economic growth indicator. The result of their research was positive impact on GDP on four out of the seven countries in the year of the tournament. In contrast with the study from Ramdas et al. (2015), they found that France, South Korea, Japan, Germany, and South Africa show a negative CAR respectively for the same event window.

From the explanation about the stock market reaction on the announcement of hosting country to International Sporting Events, the researcher generates the hypothesis with the different announcements as below:

*H1: Cumulative average abnormal return has difference in the LQ45 index that listed in the Indonesia Stock Exchange before and after the announcement of XVIII ASIAN Games.*

*H2: Cumulative average abnormal return has difference in the PSE index that listed in the Philippine Stock Exchange before and after the announcement of XXX SEA Games.*

Looking from the explanation above, the framework is made in order to clarify the research flow. Below is the framework in this research:

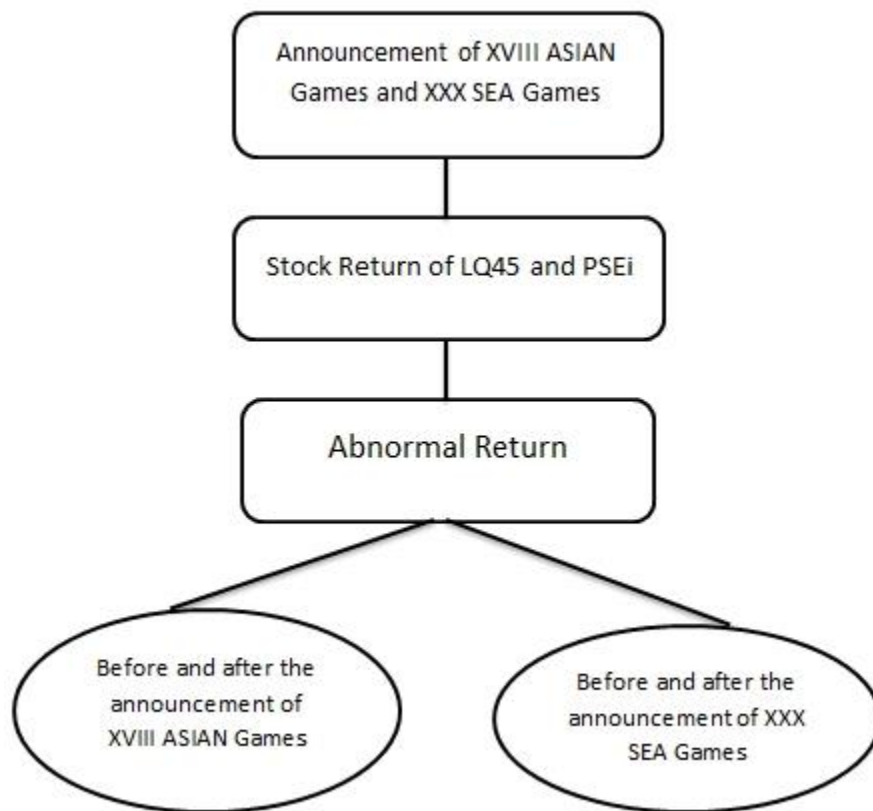


Figure 2.1 Framework