

ANALYSIS OF DIFFERENCES ON ABNORMAL RETURN AND TRADING VOLUME ACTIVITY (TVA) BECAUSE OF INNCREASING CIGARETTE PRICE

(Study at stocks listed in LQ-45 index on August 2016-January 2017)

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ABSTRAK

Penelitian ini bertujuan untuk menggambarkan dampak kenaikan harga rokok terhadap abnormal return dan Trading Volume Activity. Jenis penelitian adalah event study dengan pendekatan kuantitatif. Peneliti menggunakan stok indeks LQ-45 pada Agustus 2016-Januari 2017 sebagai sampel penelitian. Hipotesis diuji dengan menggunakan paired sample t test jika data terdistribusi normal dan uji rank signed wilcoxon jika data tidak terdistribusi normal. Hasil penelitian menunjukkan bahwa uji t pada abnormal sebelum dan sesudah kenaikan harga rokok dengan periode waktu sepuluh hari sebelum diterbitkan sampai sepuluh hari setelah terbit tidak memberikan dampak terhadap abnormal return. Hal ini dapat dilihat dari hasil uji sampel berpasangan dengan Nilai signifikansi 0,102 yang lebih besar dari sig. 0,05. Selain itu, hasil uji Trading Volume Activity sebelum dan sesudah kenaikan harga rokok dengan periode waktu sepuluh hari sebelum penerbitan muncul sampai sepuluh hari setelah penerbitan tidak berdampak pada Trading Volume Activity (TVA). Hal ini dapat dilihat dari hasil uji sampel berpasangan dengan nilai signifikansi 0,385 yang lebih besar dari sig. 0,05. Jadi, dari hasil tersebut kita tahu bahwa kenaikan harga rokok tidak berdampak pada abnormal return dan Trading Volume Activity (TVA).

Kata kunci: Berita kenaikan harga rokok, abnormal return, Trading Volume Activity, event study

ABSTRACT

This research is used to describe the impact of increasing cigarette price issue on abnormal return and Trading Volume Activity (TVA). The type of research is event study with quantitative approach. Researcher uses stock of LQ-45 index on August 2016-January 2017 as the research sample. Hypothesis is tested using paired sample t test if the data is normally distributed and wilcoxon signed rank test if data is not normally distributed. The research result shows that abnormal return test before and after increasing cigarette price issue with time period ten days before issue appeared until ten days after issue appeared did not have any differences in abnormal return. It can be seen by the result of paired sample test with the significant value of 0.102 which is bigger than sig. level of 0.05. Besides, the results of Trading Volume Activity (TVA) test before and after increasing cigarette price issue with time period ten days before issue appeared until ten days after issue appeared did not have any differences on Trading Volume Activity (TVA). It can be seen by the result of paired sample test with the significant value of 0.385 which is bigger than sig. level of 0.05. So, from the result we know that increasing cigarette price issue did not have any differentiation in abnormal return and Trading Volume Activity (TVA).

Keywords: Increasing cigarette price, abnormal return, Trading Volume Activity, event study

INTRODUCTION

According to Bodie (2006:1), an investment is the current commitment of money or other resources in the expectation of reaping future benefits. Many activities can be related with investment. Capital market can be alternative for doing investment. Most of Indonesian people usually save their money in the bank, but it would be more productive to saving the money in capital market through stocks or bonds. Capital market has important role for economic growth in Indonesia. It means for company to increase long term needs through stocks transaction and bond issues.

One of popular investment asset in capital market is stock. Stock is a securities traded in Indonesia Stock Exchange (IDX). Stock shows the nominal information and declare that owner of the stock has ownership for stock that issued by company in a piece of paper. Investing in stock gives many advantages for shareholders, like dividend and capital gain. However, stock also has a lot of risks that must be considered by shareholders or investor, when investor wants to get high return, it will also followed by high risk faced by investor. Stock gives many risks because the stock income depends on the price fluctuation (capital gain) and corporate income distribution.

The investment activities need strategy to choose kind of investment and determine what strategy that should be used to minimize the risk. Investment strategy plan is purposed based on recent issues around area, information from government, and news through media. Investor's ability in understanding and predicting the macroeconomic condition is very useful to make right decision in the future. According to Tandelilin (2010:339), the capital market reflects what the condition in macroeconomic because investment value is determined by expected cash flows and requirement return, whereas both effected by macro environment changes. Market will move away when the information comes. While the prices move and following the available information, it is call efficient market. Efficient capital market can interpret the actual stock price and give the actual information from the real condition. According to Thaler (1978), the efficient capital market predicts that the stock price must follow a random walk movement pattern.

One of information which giving impact on efficient capital market is the issue of increasing cigarette price that would be raising in 1 September

2016. This issue started when people much talked in social media about the cigarette price will be increase until Rp 50.000,- per pack. Cigarette price before is around Rp 11.000-Rp 15.000, but in 1 September 2016 it issued will become Rp 50.000,- per pack. However, it confirmed that the issue of increasing cigarette price is fake. Although the announcement of increasing cigarette price on 1 September 2016 already stated as a fake issue, but the impact have to be known by some companies, especially cigarette company.

From the issue, researcher tries to find out the impact of increasing cigarette price on 1 September 2016 news on abnormal return and Trading Volume Activity (TVA). The researcher analyzes capital market reaction before and after the issue of increasing cigarette price on 1 September 2016 appeared. This research need to be verified because it can prevent investor to be aware about the economic condition or daily news that happened in this country. According to Jogiyanto (2013:599), every outstanding information can be used by investors as a consideration for determining investment strategy.

Information content testing is expected to see the market reaction to an announcement of financial information. The market will react at the time of the announcement received when the announcement contains information. The market reaction indicated by changes in the price of securities of the company, and it uses abnormal return as measurement. An announcement contains information when the announcement was generating abnormal return for investor.

Researcher wants to analyze the average abnormal return and average Trading Volume Activity (TVA) after news of increasing cigarette price on 1 September 2016 appeared. Capital market reaction based on information is measured by using abnormal return, but it also can be measured by Trading Volume Activity (TVA).. This research is used LQ-45 index as population because LQ-45 index has the most liquid stock and having high capitalization. Based on background above, researcher is interested to make a research which is entitled: **“Analysis of Differences on Abnormal Return and Trading Volume Activity (TVA) Because of Increasing Cigarette Price Issue”**

LITERATURE REVIEW

Capital Market

According to Hanafi (2008:63), capital market is financial market where traded several long-term financial instruments. Capital market can be defined as a meeting place between party that having more fund and party who need fund to buy and sell securities product (stock, bond, etc). Generally, capital market is an organized financial system, including the commercial banks all financial intermediaries, and all circulated papers.

Abnormal Return

Abnormal return is surplus of actual return that happened on the normal return. Abnormal return is the differences between actual return and expected return. Market will give positive response in abnormal return for good news but market will give negative response for bad news. Tandelilin (2010:565) said that abnormal return can be used to test the contain of information from the announcement.

$$AR_{i,t} = R_{i,t} - E[R_{i,t}]$$

Source: Jogiyanto (2013:237)

$AR_{i,t}$: Abnormal return number i on event t

$R_{i,t}$: Actual return number i on event t

$E[R_{i,t}]$: expected return number i on event t

a. Actual Return

Actual return is calculated by using historical data. It is important to use actual return because it can be used as measurement of company performance and also it can be used as a basic determination of expected return and risks in the future.

$$R_{i,t} = \frac{P_t - P_{t-1} + D_t}{P_{t-1}}$$

Source: Jogiyanto (2013:611)

$R_{i,t}$: actual return number i on event t

P_t : stock price on event t

P_{t-1} : Stock price on event

D_t : Dividend on day t

b. Expected Return

Expected return is needed to estimate the return gained by investor. This research is used market adjusted model in order to calculate the expected return. Market adjusted model is definitely assume that expected return is constant with actual return in the last period.

$$E[R_{i,t}] = \frac{JCI_t - JCI_{t-1}}{JCI_{t-1}}$$

Source: Jogiyanto (2013:610)

$E[R_{i,t}]$

: expected return number i on event t

JCI_t

: Jakarta Composite Index (IHSG) in period t

JCI_{t-1}

: Jakarta Composite Index (IHSG) in period $t-1$

Hypothesis

H1: There is a differentiation in abnormal return before and after the cigarette price issue

H2: There is a differentiation in Trading Volume Activity (TVA) before and after the cigarette price issue

RESEARCH METHOD

Type of Research

The type of research used in this research is quantitative approach using event study. Event study is a study of market reaction to an event that information is published as an announcement. The event study methodology seeks to determine whether there is an abnormal stock price effect associated with an event. From this, the researcher can infer the significance of the event.

Research Location

This research is located on website of Indonesia Stock Exchange (www.idx.co.id). The website as information center for company that already go public in Indonesia provides a variety of data sources needed, therefore it commonly become reason for selecting Indonesia Stock Exchange (IDX) website as a research location. All of data movement per time, day, and week are presented by that website so that the author will get the accurate data to measure the effect of each independent variable needed against dependent variable in this research.

Population and Sample

The population in this research is companies listed in LQ-45 stock period August 2016-January 2017 in Indonesia Stock Exchange. The amount of population is 45 samples. Researcher chooses LQ-45 index as population because stock that included in LQ-45 index is the most liquid stock and having high capitalization. Then sample used for this research is companies listed in LQ-45 stock period August 2016-January 2017 in Indonesia Stock

Exchange.in period August 2016-January 2017. Samples are determined by this sampling technique and following criteria:

1. Listed on LQ-45 stock on January-August 2016 or in research period.
2. Transacted actively in research period
3. There is no corporate action in that company stocks

Data Analysis Technique

a. Normality Test

Normality test of data is used to determine whether the data distributed normally or not. To detect normality data, researcher uses Kolmogorov Smirnov test. Criteria for determining normal distributed data are as follows:

1. If the significant number of Kolmogorov Smirnov test $\text{Sig.} < 0.05$ so the data is not distributed normally
2. If the significant number of Kolmogorov Smirnov test $\text{Sig.} > 0.05$ so the data is distributed normally

b. Difference test (t test)

The purpose of t-test is comparing the average of two groups whether having the same significant average or not. This research uses t-test for verifying the average of abnormal return and Trading Volume Activity (TVA) during research period. If the data is normally distributed, the difference test for the research would be done by paired sample test. However, if the data is not normally distributed, the difference test for the research would be done by wilcoxon signed rank test.

RESULT AND DISCUSSION

Descriptive Statistical Analysis

a. Abnormal Return

Table 1. Descriptive Statistical Analysis of Average Abnormal Return (AAR) in research period

Period	Mean	Standard Deviation
Before	0.000966035	0.002827798
After	-0.001374277	0.002890711

Source: Secondary data processed (2017)

Table 1 showed that Average Abnormal Return (AAR) before the issue of increasing cigarette price appeared is belonging in positive value. However, after the issue

appeared the Average Abnormal Return (AAR) became negative. It proved that return earned by investor has fallen when the issue of cigarette price appeared. Besides, there is a difference in the number of mean before and after the issue of cigarette price appeared. Mean itself consists of the average number of abnormal returns obtained from 43 sample companies included in the LQ-45 stock index. The difference can give impact for investor because the return that will they get is decrease.

b. Trading Volume Activity (TVA)

Table 2. Descriptive Statistical Analysis of Average Trading Volume Activity (ATVA) in research period

Period	Mean	Standard Deviation
Before	0.009607117	0.0076879768
After	0.0019328037	0.006008119

Source: Secondary data proceed (2017)

Table 2 showed that the number of Average Trading Volume Activity (ATVA) decreases after the issue of cigarette price appeared. Mean before the issue appeared is 0.009607117 and after issue the value has fallen into 0.0019328037. Mean itself consists of the average number of Trading Volume Activity (TVA) obtained from 43 sample companies included in the LQ-45 stock index.

Normality Test

a. Abnormal Return

Table 3. Normality test result of abnormal return

Variable	Research Period	Kolmogorov-Smirnov Test	Sig.
Abnormal Return	Before	0.126	0.083
Abnormal Return	After	0.70	0.200

Source: Secondary data proceed (2017)

1. The value of Kolmogorov-Smirnov test before the issue of 0.126 with significant value of 0.083. Significant value of 0.083 is bigger than Sig. level of 0.05. It means the data is normally distributed.
2. The value of Kolmogorov-Smirnov test after the issue of 0.70 with significant value of 0.200. Significant value of 0.200 is bigger than

Sig. level of 0.05. It means the data is normally distributed.

The table indicates that abnormal return before and after increasing cigarette price issue is normally distributed. It is shown by the significant level > 0.05 . Therefore the difference test used for abnormal return is paired sample test, because all data are normally distributed.

b. Trading Volume Activity (TVA)

Table 4. Normality test result of Trading Volume Activity (TVA)

Variable	Research Period	Kolmogorov-Smirnov Test	Sig.
Trading Volume Activity	Before	0.254	0.000
	After	0.219	0.000

Source: Secondary data proceed (2017)

1. The value of Kolmogorov-Smirnov test before the issue of 0.254 with significant value of 0.000. Significant value of 0.000 is less than Sig. level of 0.05. It means the data is not normally distributed.
2. The value of Kolmogorov-Smirnov test after the issue of 0.219 with significant value of 0.000. Significant value of 0.000 is less than Sig. level of 0.05. It means the data is not normally distributed.

This table above shows that the data is not normally distributed. The significant value of Trading Volume Activity (TVA) before and after issue appeared $>$ Sig. level of 0.005. Therefore, it can be concluded that data will be tested with wilcoxon signed rank test because all data are not normal.

Hypothesis Testing

a. Abnormal Return

Table 5. Paired Sample t test result for abnormal return test

Period	t Value	Sig.
AAR before-AAR after	1.820	0.102

The result of paired sample test for testing abnormal return before and after issue appeared shows that significant value of 0.102 and t value of abnormal return before and after issue appeared is 1.820. The significant value of 0.102 is bigger than

sig. level of 0.05. From the result above, it presents that H0 is accepted and H1 is rejected. Therefore, it can be concluded that there is no differentiation in abnormal return before and after increasing cigarette price issue.

b. Trading Volume Activity (TVA)

Table 6. Wilcoxon signed rank test for Trading Volume Activity testing

Period	Z Value	Sig.
TVA before-TVA after	-.869 ^b	0.385

Source: Secondary data proceed (2017)

The result of wilcoxon signed rank test for testing Trading Volume Activity (TVA) before and after issue appeared shows that significant value of 0.385 and Z value of Trading Volume Activity (TVA) before and after issue appeared is -0.869. The significant value of 0.385 is bigger than sig. level of 0.05. From the result above, it indicates that H0 is accepted and H1 is rejected. Therefore, the result can be concluded that there is no differentiation in Trading Volume Activity (TVA) before and after increasing cigarette price issue.

Result Interpretation

The increasing cigarette price issue on 1 September 2016 is one of viral information that can be included as one of event effecting on capital market. Information as an important part for capital market in order to determine the condition of market can be factor affecting efficiency market. According to Tandelillin (2010:223) in theory of efficiency market, market become semi-strong form efficiency market when stock prices are influenced by market data (stock prices and trading volume activity) and all published information (such as earnings, dividends, stock split announcements, new stock issues, and financial difficulties experienced by the company, and economic information).

This event study is used to examine the information content of event that indicated as semi-strong form efficiency market. Testing information content is not to know how fast the market responds to an existing information, but it is used to test market reaction. The event study investigates the difference between abnormal return before and

after the information appeared. Trading Volume Activity (TVA) can be included as consideration in examining event study; it can compare the trading volume before and after an information affect capital market. Abnormal return can be calculated from difference between expected return and realized return. When abnormal return has negative value, the investor will get lost their profit, but when abnormal return has positive value investor will gain profit. Besides, Trading Volume Activity is calculated from comparisons between stock volume transacted and stock outstanding. Both abnormal return and Trading Volume Activity (TVA) can be measured to know the impact of an information about increasing cigarette price issue on 1 September 2016.

The result of different test for abnormal return indicates that there are no impact of increasing cigarette price issue on abnormal return. It is proved by the result of paired sample test that showed significant value of 0.102 and t value of abnormal return before and after issue appeared is 1.820. H1 is rejected because the significant level is bigger than sig. level of 0.05. The result of the study means that market does not consider the increase in cigarette prices as an information that affects the change in return that will be obtained. The information can still be responded well by investors and can not affect the market movement.

The result of wilcoxon signed rank test also indicates that there are no impact of increasing cigarette price on Trading Volume Activity (TVA). it can be seen by the result significant value of 0.385 and Z value of Trading Volume Activity (TVA) before and after issue appeared is -0.869. H2 is rejected because the significant level is bigger than sig. level of 0.05. from the result, researcher concludes that not all viral information in media have big impact on market movements. Investor still can responded well for all changes in media and increasing cigarette price issue as an economic event can not affect the abnormal return and Trading Volume Activity (TVA).

CONCLUSION AND SUGGESTION

Conclusion

1. The results of abnormal return test before and after increasing cigarette price issue with time period ten days before issue appeared until ten days after issue appeared showed no differentiation. It can be seen by the result of paired sample test with the significant value of 0.102 which is bigger than sig. level of 0.05. Therefore, it means there is no differentiation

in abnormal return before and after increasing cigarette price issue.

2. The results of Trading Volume Activity (TVA) test before and after increasing cigarette price issue with time period ten days before issue appeared until ten days after issue appeared showed no differentiation. It can be seen by the result of paired sample test with the significant value of 0.385 which is bigger than sig. level of 0.05. Therefore, it means there is no differentiation in Trading Volume Activity (TVA) before and after increasing cigarette price issue.

Suggestion

1. For researcher

Researcher should find out other information that can affect capital market and more focus on samples to get other research result. Researcher also needs to improve the knowledge to get to know about market movements.

2. For investor

Investor must be aware about event that can affect market movements, because market always changed rapidly. The event affected is not only about economical event, sometimes political events can give impact on stock price.

3. For company

Company should anticipate about the event that can be viral in media. They also should maintain the quality and performance of company in order to keep their company and maintain the sustainability.

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