

## **THE EFFECT OF UNUSUAL MOVING ACTIVITY ANNOUNCEMENT ON STOCK RETURN AND TRADING VOLUME IN INDONESIA STOCK EXCHANGE**

**Ika Yanuarti**

**Mulyono**

Multimedia Nusantara University

E-mail: iyanuarti@yahoo.com; mulyono.umn@gmail.com

Scientia Boulevard Street, Gading Serpong, Tangerang 15118, Banten, Indonesia

### **ABSTRACT**

*One of the information submitted by the Indonesia Stock Exchange, related to stock trading is the announcement of Unusual Market Activity (UMA). The UMA announcement is a trade activities and or price movements of unusual effect on a certain period of time which, according to the assessment on the Indonesia Stock Exchange could potentially disrupt the holding of regular stock trading, fair and efficient. This announcement does not necessarily indicate a breach in the field of capital market. Publication of UMA announcement can be one form of protection to investors when a company's stock price has been moreover volatile. The sample of this study is the listed companies included in UMA announcement period 2011. This study uses Paired Samples T-test Analysis and Wilcoxon Signed Ranks Test. The conclusion is the stock return was affected by UMA announcement but the trading volume activity was not affected by UMA announcement.*

**Key words:** *Indonesia Stock Exchange, Unusual Market Activity (UMA), Stock Return, Volume Trading Activity, Market Efficient.*

## **PENGARUH PENGUMUMAN UNUSUAL MOVING ACTIVITY TERHADAP STOCK RETURN AND TRADING VOLUME DI BURSA EFEK INDONESIA**

### **ABSTRAK**

*Salah satu informasi yang disampaikan oleh Bursa Efek Indonesia, terkait dengan perdagangan saham adalah pengumuman Unusual Market Activity (UMA). Pengumuman UMA adalah aktivitas perdagangan dan atau efek pergerakan harga yang tidak biasa pada suatu kurun waktu tertentu yang menurut penilaian di Bursa Efek Indonesia berpotensi mengganggu penyelenggaraan perdagangan saham reguler, wajar dan efisien. Pengumuman ini tidak selalu menunjukkan terjadi pelanggaran di bidang pasar modal. Publikasi pengumuman UMA dapat menjadi salah satu bentuk perlindungan kepada investor ketika harga saham perusahaan telah sangat volatile. Sampel penelitian ini adalah perusahaan yang terdaftar terdapat dalam pengumuman UMA periode 2011. Penelitian ini menggunakan analisis Paired Sample T-test dan Wilcoxon Signed Ranks Test. Kesimpulannya adalah return saham dipengaruhi oleh pengumuman UMA tetapi aktivitas volume perdagangan tidak terpengaruh oleh pengumuman UMA.*

**Kata Kunci:** *Indonesia Stock Exchange, Unusual Market Activity (UMA), Stock Return, Volume Trading Activity, Market Efficient.*

## INTRODUCTION

Capital market is a place where the investors and the debtors can change the fund. Base on that, it makes the capital market becomes the alternative for investors to invest their funds and for debtor to get the funds. Capital market becomes more favorable because it has several advantageous. First, it is expected that capital market become the alternative to raise the fund instead of bank. Second, capital market gives alternative investment to investors based on their risk preferences (Husnan 2001).

The growth of Indonesia capital market is very fast. It is shown by the increasing number of listed companies at Indonesia Stock Exchange (IDX). Table 1 shows the number of listed companies from 1985 until 2012.

Companies choose to offer their stocks at Indonesia Stock Exchange in order to get funds for these reasons:

Cheap fund; companies do not need pay interest or loan payment because stock do not have maturity.

Companies do not have the obligation to buy their issued stocks.

Capital market attracts both companies and investors. Through capital market, investors can get dividend and capital gain. Dividend is the net income distributed by the company and capital gain is the difference between sell and buy price.

Investing in stock gives high return but also full of uncertainty. Therefore investors who want to invest in stock market, specially buying stock have to minimize the uncertainty. One of the solutions is notifying information published by Indonesia Stock Exchange.

Available information is needed by the investors to take the right decision in their investment. Husnan (2001) stated that efficient capital market is the market that the security prices reflected all relevant information. Based on the previous study, it shows the efficient market hypotheses in the weak and semi-strong form.

Furthermore, Sharpe et al. (1997) gives 2 primary reasons in securities trading that is traders who believe that they have the un-

knowing information, so called information-motive trader. In other side, stock's trader wants to buy or sell stock through buying-selling activity called liquidity-motive trader. Investors need to know the complete, relevant, accurate, and on time information related company that listed at stock exchange, because information in capital market is the tool to take the decision. One of the information stated by Indonesia Stock Exchange is related to Unusual Market Activity (UMA) announcement. Indonesia Stock Exchange Website ([www.idx.co.id](http://www.idx.co.id)) stated that the announcement that is the trading activity and/or unusual securities price moving in one period of time which according to Indonesia Stock Exchange could potentially disturbing the regular, fair, and efficient securities trading. The IDX also stated that UMA announcement does not necessarily indicates the violence in capital market.

The statement issued by Emerging Markets Committee of the International Organization of Securities Commissions in 2010, stated that if there is an unusual market moving then the regulator can give the pre-announcement to investors and market maker. For example, in Malaysia, the exchange will start demand the UMA announcement if there is an indication of unusual movement of price and/or trading volume of one stock and this announcement will be posted in exchange's web. After that, the statement explain when UMA query started, listed companies which are included have to make announcement to clarify the cause of unusual market activity.

Based on UMA published data stated in IDX's web, it shows that the first UMA announcement is in April 2008. Table 2 is the UMA announcement during period 2008 to 2011. Based on Table 2, it shows that there are an increasing number of UMA announcements for stock and warrant. In 2008 there are only 50 stocks and 2 warrants. This number increase to 91 stocks and 10 warrants in 2010, but in 2011 it decreases to 67 stocks and 7 warrants.

The UMA announcement become one of

**Table 1**  
**Number of Companies Listed**

<b>Year</b>	<b>Listed Companies</b>	<b>Year</b>	<b>Listed Companies</b>
1985	24	1999	277
1986	24	2000	287
1987	24	2001	316
1988	24	2002	331
1989	56	2003	333
1990	123	2004	331
1991	139	2005	336
1992	153	2006	344
1993	172	2007	383
1994	217	2008	398
1995	238	2009	398
1996	253	2010	420
1997	282	2011	440
1998	288	2012	458

Source: Indonesia Stock Exchange.

**Table 2**  
**UMA Announcement from 2008 to 2011**

<b>Year</b>	<b>UMA for Stock</b>	<b>UMA for Warrant</b>
<b>2008</b>	50	2
<b>2009</b>	79	7
<b>2010</b>	91	10
<b>2011</b>	67	7

Source: [www.idx.co.id](http://www.idx.co.id).

the insurance to investors, if there is a fluctuation on stock price. It is because together with UMA announcement, the regulator in IDX wants investor's to:

Notice the confirmation answer of listed companies to IDX.

Notice the performance of listed companies and their fairness.

Analyze the corporate action plan of listed companies if that plan has not been approve in Stockholders General Meeting or so called RUPS.

Consider the possibilities in future before take the investment decision.

Issuance of the UMA announcement on the stock, it is expected that investors should be aware and careful so that stock price and trading volume in the exchange become stable.

This research is an event study which an extension of research done by Gunistiyo 2009

about the effect of parliament reshuffle to LQ 45's stock return in Indonesia Stock Exchange. The conclusion of this research is that stock return of LQ 45's stocks before and after parliament reshuffle are the same. In this study, the event is the political event and the indicator is the stock return. However, in our research the event is the announcement from Indonesia Stock Exchange, and the indicators are stock return and trading volume.

The reason of doing this study is to examine whether the announcement of UMA has the effect on stock return and trading volume. The UMA announcement is expected to be a signal for investors that invest their money on stocks listed in UMA announcement. If the result of this study state that there is an effect on stock return and trading volume, then the investors should be take the decision to sell or held the stocks.

Based on the background as stated in the

introduction, therefore the problem of this research: Is there any significant effect of UMA announcement to the stock return and stock trading volume of the listed companies which included in UMA announcement?

The purpose of this research is to examine whether there is a change in stock return and trading volume before and after the UMA announcement released by Indonesia Stock Exchange. This research is expected to give a benefit to practitioner and academician. If there is a change in stock return and trading volume, then it means that the investors have aware to this announcement and therefore they took action to their stocks.

From theoretical perspective, this research can be a reference to other studies that related to event study. This research is expected to extent to another research with longer event period and another announcement provided by Indonesia Stock Exchange.

From practical perspective, this research is expected to give the information for Capital Market Authority about how effective the UMA announcement delivered to investors. This research also expected to give information for investors that plan to invest in stocks listed in UMA announcement. It will become one of the considerations to take the decision (buy, sell, or hold) the stocks.

## **THEORETICAL FRAMEWORK AND HYPOTHESIS**

### **Event study**

This research is an event study to see market reaction measured by stock return and trading volume because of the announcement of UMA. Event study explains empirical financial research techniques which enable the observer valuing the effect of specific event to company's stock price (Bodie et al. 2009)

### **Information Published in Capital Market**

Husnan (2001) stated that efficient capital market is the market which the securities' prices have reflected all relevant information. The faster the new information reflected on the securities' price the more efficient the market. There are 3 forms of efficient

capital market:

1. Weak form efficiency; is the situation where the prices reflect all available information on price recorded.
2. Semi strong efficiency; is the situation where prices does not only reflect the past price, but all information published.
3. Strong form efficiency; is the situation where prices not only reflect all published information, but also information gathered from fundamental analysis and the economy.

Sunariyah (2011) stated that the characteristics of an efficient capital market in general are:

1. Stock prices will reflect quickly and accurately to the all forms of new information.
2. Stock prices are random, so the price doesn't follow some of the trends and past information.
3. Profitable stocks are not easy to predict.

Information is the beneficial factor to the receiver, specifically for decision making. Information is needed for knowing the financial performance of listed companies and their stocks in the exchange.

Available information in capital market can be asymmetric information, which the information is owned by investor is not the same with management owned information. The fact is investor have less information than management and the management tend to issue securities when market value greater than book value (Van Horne and Wachowicz 1998).

### **UMA Announcement**

It is based on the Indonesia Stock Exchange Regulation No. II-A regarding Securities Trading Related to Equities, stated that in order to monitor the securities trading, the Exchange provides information related to:

- Price fluctuation and volume
- Frequency
- Sales Order
- Transaction
- Transaction model
- Transaction settlement information
- Other important and relevant information

In regulation Number II-A, it is also stated that to monitor the trading, IDX takes action issuing Unusual Market Activity (UMA), is the trading activity and / or price movement of one effect is unusual in certain period that according the Exchange can potentially disturbed the securities trading in regular, fair and efficient market.

### Stock Return

Investors who invest in the stock would have benefited in two ways that is the distribution of company profits (dividend) and the stock price increase (capital gain). Husnan (2001) stated that rate of return of every stock traded are from two parts, those are:

1. Normal rate of return or expected rate of return. This rate of return is part of actual rate of return which is predicted or expected by stock holder. This rate of return is affected by information owned by investor.
2. Uncertain rate of return or risky rate of return. This rate of return is from unexpected information.

Stock return received by investor related to UMA announcement measured by stock return.

Husnan (2001) stated the definition of stock return is the difference between the real rate of return and the expected return.

To measure the return, Sharpe et al. (1997) stated that return is the percentage difference investor's wealth from beginning until the end of year. The formula used to calculate the return is:

$$\text{Return} = \frac{\text{wealth at the end} - \text{wealth at the beginning}}{\text{wealth at the beginning}} \quad (1)$$

To measure the expected return, we used market model method as follows:

$$E(R_i) = \alpha_i + \beta_i(R_m) \quad (2)$$

Note:

$E(R_i)$  = expected return of stock  $i$

$\alpha_i$  = intercept for stock  $i$

$\beta_i$  = slope coefficient, (the beta of stock  $i$ )

$(R_m)$  = market index return

### Stock Trading Volume

This research uses the data of stock price and trading volume to measure market reaction to UMA announcement. Pathirawasam (2011) studied about relationship between trading volume and stock return, the study finds that contemporary trading volume change is positively relate with the stock returns, however the relation between past period trading volume change and current period stock return is negative.

Furthermore, Lo and Wang (2000) stated, the measurement of trading activity using volume is the number of stock traded divided by the number of outstanding stock.

Therefore, analyzing the effect of UMA announcement to stock trading volume could be seen from the stock trading activity, or trading volume activity (TVA), as follows:

$$TVA_i = \frac{\text{NumberofStockiTradeinTperiod}}{\text{NumberofOuttandingStockiTradeinTperiod}} \quad (3)$$

### Hypotheses Development

According to Zimund in Sarwono (2012) stated that hypotheses is the proposition or unproved suspect tentatively explain the facts or certain phenomenon and also the possibility answer to research question.

Based on previous research done by Gunistiyo the hypotheses stated that there is a significance difference in abnormal return of companies listing in Indonesia Stock Exchange before and after parliament reshuffle (Kabinet Indonesia Bersatu). The result from previous research stated that the abnormal return of companies listing in Indonesia Stock Exchange before and after parliament reshuffle (Kabinet Indonesia Bersatu) are the same.

Since investors need the complete, relevant, accurate, and on time information as a tool to take the decision (Sunariyah 2011) and Pathirawasam (2011) stated that price-volume relationship is important for event studies that use the combination of price and volume data to take the conclusion, therefore we proposed the hypotheses in this research

as follows:

$H_0$  : There is no difference in stock return and trading volume activity before and after the UMA announcement.

$H_1$  : There is a difference in stock return and trading volume activity before and after the UMA announcement.

Instead of price, we use stock return to reflect the change of investor's wealth. Stock return determined by the change in stock price. If there is an increase in stock price then the stock return will also increase. Investors receive capital gain as their return.

Sarwono (2012) stated in hypotheses testing if we use the curve to test the hypotheses (for two tailed test). When using SPSS version 20, hypotheses testing use the number of significance. The criteria used to decide:

If significance number is  $< 0.05$  then its rejects  $H_0$

If significance number is  $> 0.05$  then it accepts  $H_0$

## RESEARCH METHOD

The population in this research is the stock included in UMA announcement issued by Indonesia Stock Exchange (IDX). The type of data is secondary data taken from [www.idx.co.id](http://www.idx.co.id). The UMA announcement period in this research is year 2011. Stock price and trading volume activity data period is from 2010 to 2012.

To test the hypotheses in this research we use mean difference testing (t-test). The methodology used is event study. This research has several stages, as follows:

1. Identification publication date of UMA announcement or event date. To make it simple, the event date identified by day-0.
2. Deciding event period, that is the period of UMA announcement. Event period in this research is 20 days, that is 10 days before and 10 days after UMA announcement (H-10 to H+10)
3. Make the statistically comparison average stock liquidity using stock return measurement and trading volume activity (TVA) to see if there is significance difference between the two periods to day-0.

Before doing the hypotheses testing, we test the classical assumption. One of the classical assumption is normality testing. If the data is normally distributed, then the hypotheses testing will use t-test. However, if the data is not normally distributed, then the hypotheses testing uses nonparametric testing, that is Wilcoxon Signed Ranks Test.

## DATA ANALYSIS AND DISCUSSION

### Test of Normality

The data of stock return and trading volume activity will be tested if they are normally distributed or not before doing the hypotheses testing to get the result of this research. Based on test of normality for stock return before and after the UMA announcement in Table 3, the probability value of before and after UMA announcement is 0.058 and 0.088, which is greater than 0.05. It means that stock return data before and after UMA announcement is normally distributed.

Based on test of normality for trading volume activity before and after the UMA announcement in Table 4, the probability value is 0.000 and 0.000, which is lower than 0.05. It means that trading volume activity data is not normally distributed.

After doing the test of normality, the next step is doing the test of hypotheses to make a conclusion whether stock return and trading volume activity are different between before and after UMA announcement.

### Hypotheses Testing

Based on the test of normality, it is shown that the stock return data is normal whereas the trading volume data is not normal. Meaning, we use paired sample t-test for stock return data and Wilcoxon Test for trading volume data.

Based on the Table 5, the significance number of paired data stock return before and after UMA announcement is lower than 0.05 (Sig.= 0.000). The decision is  $H_0$  rejected, meaning there is a difference on stock return before and after the UMA Announcement. The correlation number is -0.85, which is closer to 1. Meaning the correlation of the

**Table 3**  
**The Result of Normality Testing for Stock Return before and after the UMA Announcement**

Kolmogorov-Smirnov	Stock Return	
	Before	After
Statistic	0.058	0.088
Sig.	0.200	0.200

Source: SPSS table.

**Table 4**  
**The Result of Normality Testing for Trading Volume Activity before and after the UMA Announcement**

Kolmogorov-Smirnov	Trading Volume Activity	
	Before	After
Statistic	0.393	0.378
Sig.	0.000	0.000

Source: SPSS table.

**Table 5**  
**The Result of t-test for Stock Return**

Paired Data	N	Correlation	Sig.
Stock Return Before and After UMA announcement	67	-.850	.000

Source: SPSS table.

paired data is negatively strong enough. This can be explained that there is a negative relationship between 2 groups of data.

As shown in Table 6, the significance value is 0.000, which is lower than 0.05 and T-value is 11.392 greater than T-table 1.96. The decision is  $H_0$  rejected, meaning there is a difference on stock return before and after the UMA Announcement. It also shows that mean difference value is 0.054693403. Meaning that stock return before UMA is greater than stock return after UMA.

Practically, this is an indicator that investors aware to the UMA announcement and they tend to sell their stock which listed in UMA announcement. Stock listed in UMA announcement has the unusual movement that brings investor to the greater risk. In this case, we assume that investor is risk-averse. They tend to avoid taking greater risk, so that they sell their stock. Since a lot of investors sell their stock, then the stock price will fall. The falling in stock price makes the stock return also fall below the stock return before UMA announcement.

Based on Table 7, it is shown that the value of Asymp. Sig (2- tailed) greater than 0.05. It means that  $H_0$  accepted or there is no difference of trading volume activity before and after UMA announcement. The UMA announcement does not affect the trading volume activity in Exchange.

Practically, UMA announcement does not affect trading volume activity because usually stock listed in UMA announcement has small number of stock traded. Therefore, it will not affect overall trading volume activity.

## **CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS**

Based on the test, it can be summarized that the UMA announcement affects the stock return, whereas the stock return before the announcement is greater than after the announcement. The logical reason is the investor more aware and can adjust their portfolio. In this case, the UMA announcement is become early-warning to investor.

The UMA announcement does not statically affect the trading volume activity. It

**Table 6**  
**The Result of Paired Sample Test for Stock Return**

Paired Data	Paired Difference Mean	T	Sig. (2- tailed)
Stock Return Before and After UMA Announcement	0.054693403	11.392	0.000

Source: SPSS table.

**Table 7**  
**The Result Wilcoxon Test for Trading Volume Data**

Trading Volume Data Before and After the UMA Announcement	Z	Asymp. Sig (2-tailed)
	-1.792	0.073

Source: SPSS table.

means the stock listed in UMA announcement has the same trading volume activity before and after the UMA announcement. The reason is stock listed in UMA announcement has small number stock traded.

Limitation of this study is not taking into account the various events that could affect the stock price, for example January effects and other events. For further research can use the data announcement UMA with observation time range longer than a year. With a longer time span to make the selection process has a longer record duration.

## REFERENCES

- Bodie, Zvi, Alex Kane, Alan J. Marcus, 2009, *Investments*, 8<sup>th</sup> Edition, International edition, McGraw-Hill Education (Asia).
- Darmadji, Tjiptono, Hendy M. Fakhruddin, 2008, *Indonesian Capital Market Questions and Answers Approach*, Second Edition, Salemba Empat, Jakarta.
- Emerging Markets Committee of The International Organization of Securities Commissions, 2010, *Effectiveness of Market Interventions in Emerging Market*, Final Report.
- Gunistyo, 2009, 'Studi dampak reshuffle Kabinet Indonesia Bersatu terhadap return saham LQ 45 di Bursa Efek Jakarta', *Jurnal Sosial, Ekonomi, dan Humaniora (Sosekhum)*, Vol. 4 No. 6.
- Husnan, Suad, 2001, *Basic Theory and Analysis of Portfolio Securities*, Third Edition, UPP AMP YKPN, Yogyakarta.
- Indonesia Stock Exchange, <www.idx.co.id>.
- IDX Statistic, Indonesia Stock Exchange, various editions.
- Indonesian Capital Market Electronic Library (ICaMEL), Indonesia Stock Exchange.
- Jones, Charles P 2010, *Investments Principles and Concepts*, John Wiley & Sons (Asia), PTE Ltd.
- Pathirawasam, Chandrapala, 2011, 'The Relation between Price Changes and Trading Volume: A Survey'. *Journal of Competitiveness*, Issue 3/2011, pp. 41-49.
- Lo, Andrew, and Jiang Wang, 2000, 'Trading Volume: Definitions, Data Analysis, and Implications of Portfolio Theory', *The Review of Financial Studies*, Vol. 13, No. 2 (Summer 2000), pp. 257-300.
- Manurung, Jonni J, Adler Haymans Manurung, Ferdinand Dehoutman Saragih, 2005, *Econometrics theory and applications*, Elex Media Komputindo, Jakarta.
- Sarwono, Jonathan, 2012, *Knowing SPSS Statistic 20*, Elex Media Komputindo, Jakarta.
- Sekaran, Uma, 2000, *Research Methods for Business*, John Wiley & Sons Inc. USA.
- Sunariyah, 2011, *Introductory knowledge of capital markets*, Publisher and Printing Unit STIM YKPN, Yogyakarta.
- Sharpe, William F, Gordon J. Alexander, Jeffrey V. Bailey, 1997, *Investment*, Vol. 2, SMTG Desa Putra Printing, Jakarta.
- The Stock Price Index Handbook, 2010, Indonesia Stock Exchange.
- Widoatmodjo, Sawidji. 2000, *How to Invest in the Stock Market Healthy*, Mpu Ajar Artha Foundation Printing, Jakarta.