Examining Semi Strong Efficiency in Economy and Political Salient News: In Memoriam Late President of Indonesia – K.H. Abdurrahman Wahid

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Abstract

This research examines information content by testing semi-strong form of efficiency market hypothesis in the age of late 4th President of Indonesia Abdurrahman Wahid (Gus Dur). In this period, there were lots of important and controversial economic and political news that was directly affected to Indonesia Capital Market. The extraordinary of this research is the usage of intraday data and more than one event to find abnormal return. The events which are used in this research are proxy by salient news that is filtered from headlines of three immense newspapers in Indonesia. There are 31 salient news uses in this research. They contain 9 economic and 22 political news. This research reveals the efficient Indonesia Capital Market in semi-strong form. However, there is no distinct abnormal return between economic and political news.

Keywords: *Abdurrahman Wahid, market efficiency, event study, salient news, intraday.*

INTRODUCTION

Empirical research in testing the efficiency market hypothesis has been used by financial researchers. The semi-strong form market efficiency (Fama, 1991) examines empirically that any information may reflect historical stock prices. This test is also known as the event study. Event study is used by various researchers who are trying to connect the presence of a significant event to the capital market activities. Investors who are using information as news event is widely used in the event study researcher to test event capital market activities.

The use of the information linked to market activity can be done using the basic concept of market efficiency. Tandelilin (2001) noted that the concept of market efficiency discusses how the market responds to incoming information, and how that information can affect securities price movement towards a new equilibrium price. Jones (2002) emphasized that information is a key determinant of stock prices; consequently, the information is a fundamental issue of market efficiency concept. Since an investment perspective, the efficiency of the market means that prices are formed already reflects all

available information. In general, investors will react if there is new information that emerged resulting in price changes that reflect investors' expectations of risk and return.

Mitchell and Mulherin (1994) using a number of Dow Jones Daily headlines incurred as a measure of public information. They are looking for news on the impact of market activity by using daily data (interday) shares proxied by stock returns and trading volume. Berry and Howe (1994) tried to find the impact of news issued by Reuter's News Service on market activity proxy by trading volume and stock prices. Klibanoff, Lamont, and Wizman (1998) examine how much say prominent and important news (salient). This news selection method used Chan, Chui and Kwok (2001) which examined the impact of news on market activity.

Research about the impact of economic news on the market activity is undertaken by Pearce and Roley (1985) and Jain (1988). Research the impact of political news on market activity ever undertaken by Asri (1996), Asri and Setiawan (1998), Ihdin (2000) and Gunawan (2004). Various research studies enriching events. Their research; however, only concentrate on one type of news only.

Market activity can be proxied by the price, return, number of shares traded, or the frequency of trading. Founded on Berry and Howe (1994), Chan et al. (2001) examined the impact of political and economic news on intraday trading activities. Stock returns, stock prices, number of shares traded, and trading frequency are proxy of trading activities. Intraday data usage becomes an interesting thing because it can describe the pattern of trade is better. They also examined the impact of differences before, after, and at the political and economic news for market activity. They use a variety of events around Hong Kong's handover from Britain to the People's Republic of China.

Based on Chan et al. (2001), this research takes a period of time the leadership of former President Abdurrahman Wahid - known as Gus Dur - as the 4th President of the Republic of Indonesia. Rosyadi (2001) noted that during his presidency, various his speech, policy, and political policy often surprising, unpredictable, controversial and confusing. It was noted that Indonesia Stock Exchange (IDX) – formerly Jakarta Stock Exchange – also sometimes affected by his policy. It is interesting to conduct research studies of events in this period. Using a sample of stocks listed on the LQ45 and data events in this period, I wanted to prove the existence of the information content using capital market semi strong form efficiency hypothesis.

THEORETICAL DEVELOPMENT AND HYPOTHESES

Market Efficiency

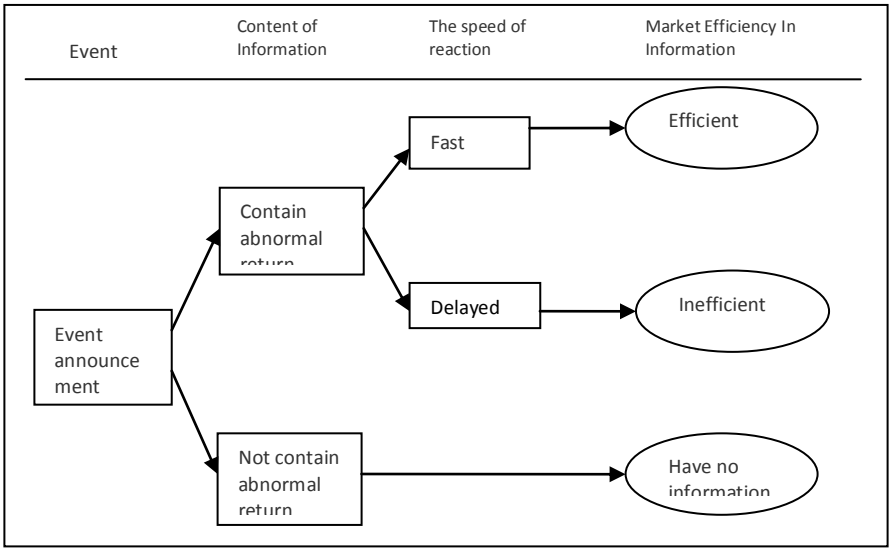
Fama (1991) introduces the efficient market hypothesis. He states that securities market will efficient if security prices fully reflect available information. This definition emphasizes two aspects, fully reflect and information availability. Fully show prices of securities reflect accurately reflects the information available. Availability of information indicates that the market is said to be efficient if the availability of the information used by investors to expect price securities accurately.

Hartono (2005) describes how an event can be said to be efficient or not based on the content of information and the speed of reaction. Hartono concept is described in Figure 1. An event is said to be efficient if the event contains information that is characterized by abnormal return and fast reaction. If not react quickly, then the market can be said to be inefficient. It is characterized by the emergence of a prolonged abnormal return.

Content of Information

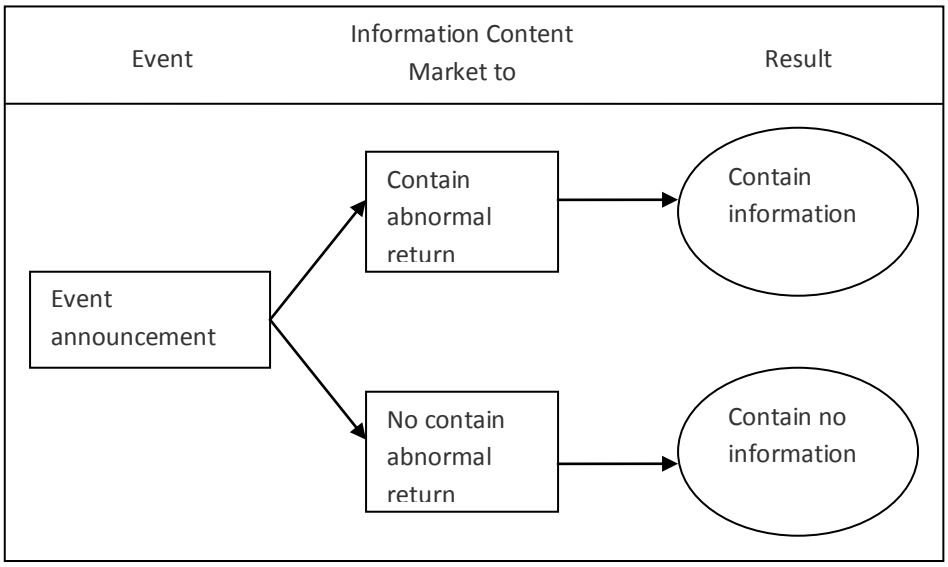
Hartono (2005) says that a study that aims to determine the information content of an event occurring emergency. If events carry information, then the event is said to contain information (information content). It also defines the event as a study the market reaction to an event. An event is said to contain information when such events are not normal return. The market will react during the announcement of the cause of abnormal return. This explanation can be illustrated in Figure 2.

Figure 1
Market Efficiency In Information



Source: Hartono (2005)

Figure 2
An Information Content of Event Announcement



Source: Hartono (2005)

Klibanoff et al. (1998) use the event study research by using more than one event. They examine investor reaction to news salient on the NYSE. In their research, they formulated filtering news events in the news salient, which are considered the most important news and most prominent so taken by the public.

Mitchell and Mulherin (1994) use multiple news in examining the impact of public information on stock market. The proxy is news headlines with a large font, macroeconomic announcements released by the government, and other sources of information, but the non-market-related activities.

Previous Research

Asri and Setiawan (1998) examined the political scene at the time of the invasion PDI office in Jakarta. They found that political events on July 27, 1996 cause a negative reaction IDX activity. Negative reaction is indicated by a negative abnormal return on the significant events (event date).

Asri (1996) analyze the reaction of the stock market price of U.S. multinational announcement of resignation plan Prime Minister of Japan, Noburu Takeshita, at 25 April 1989. As a result, there are significant abnormal returns on the d-9 to d-4. It shows that the market is slow to respond this incident for investors took no action due to the uncertain situation.

Sartono and Yarmanto (1996) analyzed the price adjustment coefficient and the absorption of new information on the effectiveness of the IDX. He found evidence that the market tends to overreact in absorbing the information. They discovered that IDX takes 22 days to absorb new information.

Ihdin (2000) investigated on political events during Gus Dur. He examined the impact of political events – caused by Gus Dur's speech and political policies – to price movements in the IDX. He found that more than one event had significant impact on stock price movements on IDX.

Gunawan (2004) investigated the IDX bombing on September 13, 2000. She found that this incident raises significant negative return, but it came back positive on second day. She also tried to test the difference before and after the incident. The result was a significant difference between abnormal return periods before and after the incident.

Hypothesis Development

Tests performed to see the information content of a reaction to the emergence of the information. The market will react when information occur. It described by changes in stock prices. The reaction of price change is measured by abnormal return. The event that has information content occurs when investors obtain abnormal return.

This study uses various events and stocks; therefore, the abnormal return should be averaged. Consequently, a market is said to be efficient when window period has average abnormal return. Hence, the first hypothesis (H1) can be stated: salient news generates abnormal returns for investors.

Chan et al. (2001) explained that Hong Kong stock market has different response between economic salient news and political salient news. Different type of news will affect market activity. Consequently, IDX can be has similar characteristics to the Hong Kong stock market. In this study, average abnormal return is used for market activity's proxy. Thus, the second hypothesis (H2) is: there is a difference between economic salient news and politic salient news.

Window in event studies can be categorized in before event period, event period, and after event period. This research tries to test the differences based on event period. This difference test is conducted by Chan et al. (2001). It is expected to clarify the differences between economic news and political news comprehensively. Therefore the hypotheses 3 to 5 are formed as follows.

H3: The average abnormal return before economic salient news is statistically different with before politic salient news.

H4: The average abnormal return of economic salient news is statistically different with politic salient news.

H5: The average abnormal return after economic salient news is statistically different with after politic salient news.

METHODS

Period of Investigation

This study took the important events in the form of news salient during the presidency of Gus Dur (October 20, 1999 until July 23, 2001) i.e. the period of investigation. It is chosen for the period had a lot of political and economic turmoil, whether caused by external factors or internal factors based on Gus Dur's decision and behavior. This condition is suitable for the research study events that have more than one event.

Data

This study requires three sources of data, i.e. headline data, stock price data, and stock trading intraday trade (detailed transaction history). This section describes how to obtain and process the three sources of data.

Headline data obtained from three national newspapers, i.e. Kompas, Media Indonesia, Bisnis Indonesia. This research uses three newspapers to determine salient news that express date of the event. Every day the newspaper has main headline. It usually appears on the first page with big font and took place over two news columns. However, headline may not be located at the top on the first page.

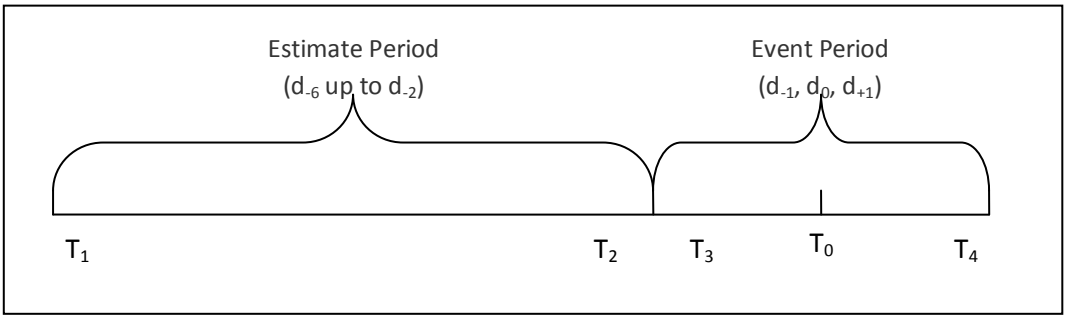
Researcher conducted four steps to process data from headlines to headlines sample. The first step is to collect headlines in the investigation period. The second step is to determine salient news. In this study, salient news is determined by headlines that appeared in more than one newspaper. The third step is to determine the economic news salient news and politics from the second step. Economic salient news is salient news regarding economic policy that is decided by government or national event involving domestic economy. Furthermore, politic salient news is salient news regarding politic policy that is decided by government or a national event involving domestic politics. To avoid news bias, this research eliminates headlines that contain political and economic news simultaneously as sample news. If there is a series of news that emerged more than one day, then the initial appear will decided to be the salient news. The last step is

filtering the sample news. The salient news cannot be appeared in eight days, the five-day and three-day period estimation period window. It can be said that the gap between first and second salient news is not more than eight working days. This gap minimized problem for the news salient can be overlapped. The first priority was the headline that appeared in the three newspapers, while the second priority is headline news today that has the longest series.

The news data is used to determine news event (T0). It contains three days window period (T3-T4), before event period (d-1), the event period date (T0 or d_0), and after event period (d_{+1}). Moreover, it also determines five days estimated period (T1-T2), the d-6, d-5, d-4, d-3 and d-2. The division of time is visualized in Figure 3.

Distance between T_1 to T_2 is the estimation period or non-event period. This period is often called benchmark period. The distance between T_3 to T_4 is the event period. In this period there is T_0 which is event occurred. The data used to determine the time trade trading interval. Researcher divided into ten trading time interval (v = 1, 2, ..., 10) with a distance of 30 minutes per interval.

Figure 3
Division of Research Period



The board contains a code share trading transactions. This research only use regular market transaction (RG) for only this transaction that make up the composite index and other indices including LQ45.

Intraday stock price is used to calculate stock returns, abnormal returns, average abnormal return, and accumulation abnormal return. This data is being used to answer the hypothesis in this study.

Measurement of Variables

Abnormal return is the difference between the actual return with the expected return. Therefore, the abnormal return for stock s day d interval v is as follows.

$$AR_{sdv} = R_{sdv} - E(R)_{sdv} \quad (1)$$

R_{dv} is stock return on day d interval v. Stock return is the difference between the final price in the event the interval v with the final price at the previous interval on the same day. For the first interval, the final price in the event the interval v-n reduced by the previous day closing price. In other words, the previous day's closing price is the price at the end of the interval to -10. For more convenience, stock returns can be obtained from the following formula.

$$R_{dv} = P_{v,d} - P_{v-1,d} \quad (2)$$

This study calculates the mean-adjusted return model assumes that the expected return is constant, i.e. the mean of the returns realized during the previous period estimate. Expected return derived from the average stock return on day d interval v divided by the length of period estimates.

$$E(R) = \frac{\sum_{s=t1}^{t2} R_{se}}{T} \quad (3)$$

R_{SE} is a realization of the stock's return on the estimated period e. T is an estimate of the length of the period, which is 5 days with a maximum of 50 intervals.

The average abnormal return in this study is a comparison between the total abnormal return for each stock sample of events per interval (RTN_{sev}) with a sample of the stock (k). The abnormal return is averaged in cross section.

$$AAR = \frac{\sum_{s=1}^{k} RTN_{sev}}{k} \quad (4)$$

The average abnormal return is to further test the difference in testing the hypothesis.

RESULTS

This research managed to collect 643 headlines from three national newspapers. The sample consisted of nine salient news economic news and political news 22. The results of data processing are exposed in Table 1.

Event date will be used as T_0, then one day before and after a period of zero and the date of the event will be the window period. Five days before the window period is

used as the estimation period (d_{-6}, d_{-5}, d_{-4}, d_{-3} and d_{-2}). Number of days represents the number of days the IDX.

This research obtained 27 samples of 63 shares of stock listed on four periods LQ45. Samples of this company and its event period and news events in the sample window are used to search intraday data samples.

The Test of Average Abnormal Return Existence

The existences of average abnormal returns indicate that investors can earn returns caused by events. It shows prolonged absorption negative information that describes inefficient capital market in semi-strong form.

Hypothesis 1 tried to proof if the domestic capital market in the form of semi-strong efficient. It can be seen from significant average abnormal return for each interval in each period in the window period. The results of average abnormal return with t value exposed in Table 2. It shows the significance of average abnormal return spread on each interval per period. This shows that Indonesian stock market is efficient in the semi-strong form for significant rates of return are not continuous and do not last long.

Most significance level that existed at period events shows that the event has abnormal return. It is concentrated at the opening, during breaks, and closing hours. The level of significance in period before and after the event is also not concentrated at certain intervals. But it is not as much as the significance level event period. The appearance of the average abnormal return in window period shows information such as salient news. However, the average abnormal return is not concentrated on certain interval. It indicates the market can absorb the information properly. It also strengthens the efficient market hypothesis in the form of half-strength.

These results contrast with the conclusions from Sartono and Yarmanto (1996). They found the adjustment process is fully informed takes time for 22 days. The result is not aligning with Sartono and Yamarto (1996). They use daily data (interday), while I used data intraday.

The second hypothesis is solved by using two average abnormal returns that have been categorized into economic news and political news. It also test the difference between the two rates of return is not normal. The results are listed in Table 3.

Significant levels of both average abnormal return shows the value of 0.47. This shows that there are no difference between average abnormal return of economic news and average abnormal return of political news.

Table 1
List of Salient News

Panel A. Politic News

No. Sample	No. News	Date	Number of Newspapers	News
1	2	21 Oct 99	2	Abdurrahman Wahid became the 4th President
2	42	30 Nov 99	2	Laksamana Sukardi: Suharto's involvement in Texmaco
3	63	21 Dec 99	2	Plant contract Paiton I's Case: Director of PLN resign
7	189	25 Apr 00	3	Gus Dur fired Laksamana and Jusuf Kalla
8	208	14 May 00	3	May 1998 riots almost repeated in Glodok, Jakarta
9	224	30 May 00	2	Acting State Secretary Bondan Gunawan replaced Djohan Effendi
10	238	13 Jun 00	2	BPK nonbudgeter funds tracked: In Bulog reached 2.89 billion
11	255	30 Jun 00	2	Parliament impose interpellation to Abdurrahman Wahid
12	272	17 Jul 00	2	MPR factions: Immediately relieve political tensions
13	288	2 Aug 00	2	Powerful bomb shook the Philippine Embassy in Jakarta
14	310	24 Aug 00	2	Gus Dur's restructuring new cabinet
15	331	14 Sep 00	3	Bombs rock Jakarta Stock Exchange
18	381	3 Nov 00	2	Clemency denied: Tommy Soeharto entered Cipinang
19	396	18 Nov 00	3	All BI deputy governor resign
20	415	7 Dec 00	2	Syahril Sabirin back on duty at BI
21	427	19 Dec 00	2	PT Arum's Aircraft shot in Aceh
22	462	23 Jan 01	2	Pansus could not answer, the president walk out
23	475	5 Feb 01	2	Abdulrrahman Wahid, Akbar & Soetatdjo: Cooling down political temperature
24	486	16 Feb 01	2	Defense Minister apologize to Golkar: 90 million goes to private accounts
26	536	7 Apr 01	2	Ginandjar Kartasasmita jailed at Kejaksaan Agung
27	560	1 May 01	2	DPR's 2nd memorandum: The President was given for 1 month
31	643	23 Jul 01	3	The President state decree freezing the MPR/DPR: Gus Dur impeached

Panel B. Economic News

No. Sample	No. News	Date	Number of Newspapers	News
4	85	12 Jan 00	2	BI plans to close some banks that do not reach CAR 4%
5	127	23 Feb 00	2	Fuel prices increase 10 percent
6	158	25 Mar 00	3	Cycle & Carriage Group Ltd managed to control 23% of Astra
16	348	1 Oct 00	2	The government raised fuel prices
17	365	18 Oct 00	3	CGI support flexibility of use loans
25	508	10 Mar 01	2	Rupiah exchange goes to 10,000 rupiah per U.S. dollar: BI & Government not worried
28	577	18 May 01	2	The Government are proposing: Petrol up 30%, electricity up 20%
29	597	7 Jun 01	2	DPR's Commission IV: Review telephone rate increase
30	621	1 Jul 01	2	The government raised electricity tariffs

Table 2
Average Abnormal Return Per Interval

Interval	Period Prior Events	Period Events	Period After The Event
1	0.002536 (0.916038)	-0.009123* (-6.280118)	-0.005235* (-4.243405)
2	-0.003628* (-2.809945)	-0.002057* (-3.095712)	-0.000500 (-0.543615)
3	-0.000536 (-0.876455)	-0.000244 (-0.355127)	0.001636** (2.313400)
4	0.000166 (0.266634)	-0.000362 (-0.512478)	-0.000041 (-0.063756)
5	0.001108 (1.090424)	0.001745** (2.300883)	0.000886 (1.270543)
6	-0.001830** (-1.982224)	0.000983 (1.226693)	-0.001451** (-1.783899)
7	-0.003361 (-3.334896)	0.001419** (2.033392)	-0.001173 (-1.593977)
8	-0.000243 (-0.323485)	-0.000417 (-0.685609)	0.000243 (0.287752)
9	-0.001327*** (-1.670659)	-0.001114*** (-1.708126)	-0.000772 (-1.028996)
10	0.008585* (8.180428)	0.008275* (7.555256)	0.006149* (6.230989)

Description:
* Significant at α = 0.01
** Significant at α = 0.05
*** Significant at α = 0.10

Difference test results on hypothesis 2 showed there is no difference between economic news and political news among investors in obtaining abnormal returns. However, different test distinguishes between the average return of economic news and political news comprehensively.

Hypotheses 3, 4, and 5 in order to test differences in mean abnormal returns between economic news and political news in the period before the event, the event period, and the period after the event. Testing these hypotheses is also using the t test. Test results vary in different periods are listed in Table 3.

Hypothesis 3 tested the difference in the mean abnormal return prior to the economic and political news. Significant levels of both average abnormal return shows the value of 0.681. This shows that the average abnormal return before the economic news is not different from the average abnormal return before the political news.

Hypothesis 4 tested the mean difference did not return to normal at the time of economic and political news. Significant levels of both average abnormal return shows the value of 0.717. This shows that the average abnormal return during the economic news is not different from the average abnormal return during political news.

Table 3
Testing Differences Mean Abnormal Return

Period	Interval	Average Abnormal Return		Different Test
		Economic News	Politics News	
Before the Event	1	-0.001010	0.004172	0.266 (0.681)
	2	-0.002205	-0.004260	
	3	-0.000963	-0.000350	
	4	0.001294	-0.000330	
	5	0.001800	0.000879	
	6	-0.005995	-0.000290	
	7	0.000389	-0.005030	
	8	-0.000325	-0.000210	
	9	-0.002309	-0.000900	
	10	0.005898	0.009742	
Event	1	-0.010217	-0.008670	0.000 (0.717)
	2	0.000056	-0.002940	
	3	-0.003295	0.000955	
	4	-0.000594	-0.000260	
	5	-0.001399	0.003080	
	6	0.001795	0.000629	
	7	0.002534	0.000966	
	8	0.000920	-0.000960	
	9	-0.001819	-0.000810	
	10	0.005999	0.009224	
After the Event	1	-0.008857	-0.003790	0.792 (0.660)
	2	0.001472	-0.001330	
	3	0.002048	0.001474	
	4	-0.001491	0.000545	
	5	0.002100	0.000394	
	6	-0.000493	-0.001850	
	7	-0.000467	-0.001460	
	8	-0.003477	0.001681	
	9	-0.002266	-0.000180	
	10	0.006214	0.006126	
Different Test		0.034 (0.470)		

Hypothesis 5 tested the mean difference did not return to normal after the economic and political news. Significant levels of both average abnormal return shows the value of 0.660. This shows that the average abnormal return after the economic news is not different from the average abnormal return after political news.

Having broken into the period before the event, during the event, and after the event, it turns out the average abnormal return between economic news and political news does not make any difference. This is consistent with the results of hypothesis 2.

CONCLUSION

The purpose of this study was to prove the hypothesis of market efficiency in the semi-strong form by using intraday data and salient news. The research continues in searching differences between average abnormal return in economic news and political news.

The result shows that average abnormal returns are significantly scattered at different intervals in before event period, event period, and after event period. The result also proves that Indonesian capital market is efficient in the form of semi-strong efficient. This reflects the average abnormal return is quickly absorbed by the market.

It also found that there is no difference in average abnormal return between economic news and political news. Having tested by period (before, during, and after the event), the result indicates that there are no difference in the mean abnormal return between economic news and political news. This finding was different from the findings of Chan et al. (2001) who found that the Hong Kong stock market has difference between economic news and political news to the market activity.

LIMITATIONS OF RESEARCH

The usage of intraday data in this research is the advantage for it consist lots of market data. Huge data represent spend lots of research budget.

Range time per interval for 30 minutes is also a limitation in this study. The shorter the time per interval, the more intervals can be examined. This research cannot use the time range shorter intervals due to Indonesia's capital market is still lean. Indonesia Stock Exchange is not as active as Hong Kong Stock Exchange and the NYSE that the time span could use 15 minutes as Harris (1986) and Chan et al. (2001) did.

Suggestions

Using intraday transaction data along with the use of data in seconds makes the research more accurate. On top of that, the usage of intraday data along with the exact event can result a sharper analysis.

This research can also be developed into economic and political news differences with the positive reactions and negative reactions. This suggestion could deepen investor behavior in response to Indonesia economic and political news.

The usage of intraday data not only for calculates abnormal return. In addition, market activity can be proxy by trading volume, number of shares traded, and changes (volatility) prices.

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