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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

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IMPACT OF INCLUSION AND EXCLUSION STOCK FROM LQ45 INDEX TOWARD THE STOCK PERFORMANCE

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ABSTRACT

The LQ45 index is one of the stock market indexes in the Indonesian Stock Exchange (IDX). The LQ45 index consists of 45 selected stocks that meet several criteria, such as stocks with the highest market capitalization, stocks with the highest transaction value and frequency; stocks have good financial conditions and prospect of growth. Every six month, IDX evaluates the performance of the listed stocks in the LQ45. If a stock within the index does not fulfill the regulated criteria, the stock will be replaced on the next cycle of stock selection. The addition or deletion of stock from the LQ45 index will give the impact to the stock's performance. The study aims to analyze the impact of inclusion (addition) and exclusion (deletion) of stocks form the LQ45. Mann-Whitney U test is used to test the performance of stock within period of pre and post announcement of LQ45 stock index changing. Furthermore, the correlation between stock liquidity, firm size and stock's age toward the abnormal return is analyzed. This study uses data of stock listed or delisted from LQ45 index in the period 2011-2015. The result of this study shows that abnormal return is different only for the delisted stock from LQ45 and shadow cost as the proxies of investor reaction is not different both for the listed and delisted stock from LQ45. The result of correlation coefficient implies that the firm's size and the stock's age have significant impact to abnormal return of stocks inclusion in LQ45 stock index, yet only firm's size affects to abnormal return of the stocks exclusion from LQ45 stock index.

KEYWORDS

abnormal return, cumulative abnormal return, investor reaction, shadow cost.

INTRODUCTION

Composite index is the indicator of stock performance in the stock exchange that provides overview regarding trading trend and stock return. In addition, the Indonesian Stock Exchange Authority (IDX) also publish LQ45 index which consists of 45 selected stocks that meet several criteria, such as stocks with the highest market capitalization, stocks with the highest transaction value and frequency, stocks have good financial conditions and prospect of growth. The LQ45 index, which was launched in February 1997, is a market capitalization-weighted index that captures the performance of 45 most liquid companies listed on the Indonesia Stock Exchange. The LQ45 index covers at least 70% of the stock market capitalization and transaction value in the Indonesia Stock Market. Every six month, IDX evaluates the performance of the listed stocks in the LQ45 Index. If a stock within the index does not fulfill the regulated criteria, the stock will be replaced on the next cycle of stock selection.

The changes in stock performance associated with a stock's inclusion and exclusion from the index had been widely investigated in the finance researches. Several previous studies have analyzed the impact of inclusion or exclusion of stock from the Index, likes Chen, Noronha and Singal (2004), there was a permanent increase in the stock price for the listed firms in the S&P 500 index. Meanwhile for the delisted firms from the S&P 500 index was no permanent decline in the stock price. Elliot, Van Nessa and Walker (2006) showed the changes of the stock liquidity; volume of transaction, stock return and the investor awareness due to stock's inclusion in the S&P 500 index. Blease and Paul (2010) showed that the increasing value occurred for the stock was listed in the S&P SmallCap and MindCap indexes in the period of the announcement date. Anton, Rodriguez and Alonso (2012) found the most of the stocks included in the Ibex35 tend to get positive returns, and the stocks excluded from the Ibex35 get negative returns. Febrian, Herwany and Primadhi (2014) showed the market reacts positively to stock newly included in the Jakarta Islamic Index (JII), which is in line with the reaction to stock added in the conventional indices.

This study aims to examine the impact of inclusion and exclusion of stock from the LQ45 Index towards stock performance in the period of 2011-2015. The data used in this study are secondary data in the form of daily stock's price, volume of transaction from 2011 to 2015, which were obtained from Indonesia Data Exchange (IDX).

This study is expected to give an overview related to impact of inclusion and exclusion of stock from the LQ45 index toward its performance. The result could be useful for academicians who are interested to study further on stock market and stock's performance especially. Furthermore, this result could help investors in optimizing their portfolio to provide a maximum return or minimize the risk. The result is also expected to be the subject of consideration for the issuer to maintain conditions that must be fulfilled by issuer to survive in the LQ45 Index.

REVIEW OF LITERATURE

Many researches have been conducted to analyze impact of inclusion and exclusion of stock from the indexes, such as Chen, Noronha and Singal (2004) examined the impact of changes of S&P 500 index toward stock's price. There was a permanent increase in the stock price for the listed firms in the S&P 500 Index but no permanent decline for deleted one. These results were at odds with extant explanations of the effects of index changes that imply asymmetric price responses to addition and deletions. A possible explanation for asymmetric price effects arose from the changes in investor awareness that it's contribute to the asymmetric prices effect of S&P 500 index additions and deletions.

Elliot, Van Nessa and Walker (2006) investigated the increasing in stock value measured by the price pressure, downward-sloping demand curves, improved liquidity, improved operating performance and increased investor awareness due to stock's inclusion in the S&P 500 index. The result showed that increased investor awareness is the primary factor behind the cross-section of abnormal announcement returns. Additionally, result also found some evidence of the temporary price pressure around the inclusion date.

Blease and Paul (2010) investigated the increasing in equity value surrounding addition to the S&P SmallCap and MidCap indexes from 1996 to 2003 and also investigated sources of the value gains. The result showed that following addition, there are significant increases in stocks liquidity and investor recognition, and changes in these variables are impounded into the permanent components of announcement share price revisions. The study also found that changes in capital investment intensity are increasing in changes in stock liquidity, consistent with a reduction in the cost of capital following index addition.

Anton, Rodrigues and Alonso (2012) examined the importance for stock prices of a stock's inclusion and exclusion from the Spanish Ibex 35 from 2005 to 2009. The results showed that most of the stocks included in the Ibex 35 tend to get positive returns, which however is not greater on average than the cumulative negative return of the companies in which the price falls. Similarly, in the case of exclusions, although most of the stocks show a price decrease, its cumulative negative returns is not much higher than the positive accumulated return by the rest of the stocks.

Febrian, Herwany and Primadhi (2014), investigated the market reaction toward the index composition changes in both the Islamic index and the conventional index in the Indonesian Stock Exchange. The Islamic index is known as Jakarta Islamic Index (JII) and the conventional index consists of LQ45, Kompas100, Bisnis27, SriKehati and Pefindo25. The market reactions were measured by abnormal return, relative abnormal volume, relative abnormal frequency, and relative abnormal bid-ask spread around the announcement of index composition change. The result showed the market reacted positively to newly included stocks in the JII, which is in line with the reaction to stock added in conventional indexes. Similarly, the market responds to the stocks are excluded from the JII and from the conventional indexes in the same way.

OBJECTIVES

The main objectives of this study are:

1. To analyze the discrepancy abnormal return and investor reaction associated with the inclusion and exclusion stocks from the LQ45 index.
2. To analyze the correlation of the abnormal return with the stock liquidity, firm size and age of stock in the stock exchange.

HYPOTHESES

Hypotheses of the research are formulated based on previous literature, as follow:

1. There is a discrepancy the abnormal return in the period before and after the announcement date of LQ45 index change.
2. There is a significant correlation between abnormal return, stock liquidity, firm size and age of stock in the stock exchange.

RESEARCH METHODOLOGY

The data used in this research is daily stock closing prices, daily volume of transactions of the stocks listed and delisted from the LQ45 index obtained from Bloomberg over the period 2011 to 2015. Also data number of shareholders obtained from the Indonesian Central Security Depository. Similar to Febrian, Herwany and Primadhi (2014), to avoid the intervention of unexpected factor, we do not include data for stocks announcing dividends, stock splits, rights issue anytime in the examination period and similar to Blease and Paul (2010) we exclude firms that were delisted in the same fiscal year they were added in LQ45 Index. The final sample size 78 firms from 100 firms, consisting of 38 firms (from 50 firms before) added to the LQ45 index and 40 firms (from 50 firms before) deleted from the LQ45 index.

We used an event-study methodology to observe the abnormal return in the period of 5 days before and 5 days after the announcement date and also observe the investor reaction over the period a month before and 6 month after the announcement date.

The daily abnormal return (AR_{it}) for a specific day is calculated as the return of a stock (R_{it}) minus the return of the market LQ45 (R_m) on that day. It is calculated in as the follow:

$$AR_{it} = R_{it} - R_m$$

The daily stocks's return (R_{it}) is calculated in the following manner:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$$

Where P_{it} is stock's closing price at time "t" and P_{it-1} is stock's closing price at time t-1. Meanwhile the daily market's return (R_m) is calculated in the following manner:

$$R_m = \frac{LQ45_t - LQ45_{t-1}}{LQ45_{t-1}}$$

Where $LQ45_t$ is closing rate of LQ45 index at time t, $LQ45_{t-1}$ is closing rate of LQ45 index at time t-1.

The investor reaction is measured by using the shadow cost. Following Blease and Paul (2010), we used the shadow cost as the proxies to investigate the investor reaction due to the change announcement of the LQ45 index composition. We construct the proxy variable for shadow cost as follows:

$$\textit{Shadow Cost} = \frac{\textit{Residual Standard Deviation}}{\textit{LQ45 Market Capitalization}} \times \frac{\textit{Firm Size}}{\textit{Number of Shareholders}}$$

Where firm size (market value of stock) and the LQ45 market capitalization is measured on the announcement date of the index change. In the pre-change period, number of shareholders is measured as close as possible to the announcement date; and for the post-change period, number of shareholders is measured at least six months after the announcement date to provide sufficient time for investor to change their portfolios and before the new period of LQ45 index change announcement. Residual return deviation is the difference between the firm's return and the LQ45 return in the six month period before the index change announcement for the pre-period, and in the 6 month period after the index change announcement for the post period.

We investigate the relation between abnormal return, stock liquidity, firm size and stock's age is listed in the exchange by OLS regression. The regression model refers to study or research conducted by Chen, Noronha and Singal (2004). Therefore, the regression model is formulated as follows:

$$ARit = \alpha + \beta_1 Relative\_Spread + \beta_2 LogILQ + \beta_3 Firm's\ Size + \beta_4 LogAge$$

TABLE 1: VARIABLE OF STUDY MEASUREMENT

Variable	Measurement
AR	Abnormal stock return = $AR_{it} = R_{it} - R_m$
Relative Spread	Relative bid ask spread = $\frac{\text{best ask price-best bid price}}{\text{(best ask price+best bid price)/2}}$
ILQ	Amihud's illiquidity = $\frac{\lvert r \rvert}{RpVol}$
Firm's Size	$\frac{\text{Stock's Market Capitalization}}{\text{LQ45 Market Capitalization}}$
Age	Stock's age is listed in the exchange

RESULT & DISCUSSION

ABNORMAL RETURN

The results for comparison of Abnormal Return (AR) occurring for each category can be seen in Table 2. Abnormal return for inclusion have the highest value in D-4 of 0.01486 with a downward trend until the date of announcement of LQ45 index change, even in D-2 the abnormal return is negative of -0.00413.

TABLE 2: ABNORMAL RETURN

Period	Mean	Mean	Statistic	Mean	Mean	Statistic
	H=	H=0	*Sig.*	H=	H=0	*Sig.*
	Inclusion to the LQ45 index			Exclusion to the LQ45 index		
H-5	-0,00176	0,00084	0,57476	-0,00199	0,00217	0,75813
H-4	0,01486	0,00084	0,08648	0,00157	0,00217	0,58995
H-3	0,00961	0,00084	0,31857	0,00201	0,00217	0,41890
H-2	-0,00413	0,00084	0,10723	0,00045	0,00217	0,72898
H-1	0,00018	0,00084	0,26628	0,00082	0,00217	0,92334
H+1	0,00031	0,00084	0,57476	-0,01449	0,00217	**0,03263**
H+2	-0,00402	0,00084	0,34974	-0,00810	0,00217	**0,03853**
H+3	0,00445	0,00084	0,79507	-0,01048	0,00217	**0,03266**
H+4	0,00174	0,00084	0,73953	-0,01095	0,00217	0,02890
H+5	-0,00150	0,00084	0,82728	0,00082	0,00217	0,48840

Abnormal return in D-1 back to positive of 0.00018, it means the market start to anticipate the announcement of LQ45 index changes (Nokowati, 2013). Abnormal return at the announcement date (AD) is 0.00084 which higher than D-1 of 0.00018. The increase value of abnormal return in the period of LQ45 index change announcement can be interpreted that the market gives a positive reaction at the time. The abnormal return in D+1 is 0.00031 which lower than the announcement date of 0.00084, giving a picture that the market reaction to the LQ45 index change is short-term. The short-term reaction of the market is clarified by the change in abnormal return for the period of D+2 negatively of -0.00402, the abnormal return is corrected in D+3 positively of 0.00445 and then the trend of abnormal return decrease in D+4 of 0,00174 and negative at D+5 of -0,0015. Based on the results of statistical tests there is no difference in abnormal return before or after the announcement date with the abnormal return on the announcement date of LQ45 index changes, which marked by (α) sig. respectively > 0.05.

Abnormal return for the exclusion has the lowest value in the D+1 negatively of -0.01449 with the negative trend last until D+4. The abnormal return in D-1 is 0.00082 is higher than abnormal return in D-2 of 0.00045. This is an indication that the market is starting to anticipate the announcement of LQ45 index changes. According to (Manurung, 2013) in Nokowati (2015) that the good or bad information circulating before announcement date shall make the stock price rise or fall. The abnormal return at the announcement date is 0.00217, which is the highest positive level of abnormal return during the observation period for the exclusion category, it can be interpreted that the LQ45 index change information raises a positive market reaction and the market is able to absorb the information and react quickly. The market reaction is positive in the short-term, it can be seen from the value of abnormal return after the announcement date which decrease even there are negative in D+1 of -0.01449, D+2 of -0.00810, D+3 of -0.01048 and in D+4 of -0.01095, whereas in D+5 the value return to positive by 0.00082. Fluctuations in the level of abnormal return in the event window before and after the announcement of the LQ45 index changes (D-5 to D+5) gives a short-term overview of changes in the level of abnormal return of each issuer is affected by the information of the index change. These results are in line with research conducted by Nokowati (2015), Febrian (2013). Based on the result of statistical test that the significant difference of abnormal return in period before or after the announcement date compared to abnormal return on the announcement date (D=0) only happen in periods of D+1, D+2 and D+3, with sig. level respectively <0.05.

The results of abnormal return test in the short-term period indicate that the market is more affected by the information of stock's deletion from LQ45 index compared to the information of stock's addition in the LQ45 index.

Shadow Cost

Overview of test results for Shadow cost can be seen in Table 3. Based on the calculation of the shadow cost for the inclusion on the announcement period (M=0) in total amounted to 0.00005, and there are no differences with the period before the announcement (M-1) or the period of 6 months after the announcement (M+6). Shadow cost value for local shareholders amounted to 0.00018, have similar conditions to the value of shadow cost in total that is no differences in shadow cost value either in the M=0 period, the M-1 period and M+6 period. This result is in accordance with the statistical test results that no significant differences between the observed periods, with the sig. level respectively >0.05. However, it is different from the conditions for the shadow cost of foreign shareholders particularly for the period of 6 months after the announcement (M+6). Shadow cost of foreign shareholders in the M+6 period amounted to 0.00010 which lower when compared with the value of shadow cost in the M=0 period or M-1 period amounted to 0.00011. Thus for foreign shareholders there are decrease value of shadow cost 6 months after the announcement that indicates a positive reaction to the foreign markets that could be caused by their reaction in anticipation of index changes which will be announced by the Indonesian Stock Exchange authorities. These results are in accordance with the study conducted by Chen et al (2004) and Becker and Donna (2010). However, referring to the test results there were no statistically significant differences between the observation periods of M=0 and M+6, by value of (α) sig. respectively >0.05.

TABLE 3: SHADOW COST

Category	**Local**		**Foreign**		**Total**	
	M-1	M+6	M-1	M+6	M-1	M+6
Inclusion to the LQ45 index						
Mean - M	0,00018	0,00018	0,00011	0,00010	0,00005	0,00005
Mean - M=0	0,00018	0,00018	0,00011	0,00011	0,00005	0,00005
Asymp. Sig.	0,90079	0,97514	0,95030	0,55375	0,95443	0,84757
Exclusion to the LQ45 index						
Mean - M	0,00013	0,00013	0,00004	0,00004	0,00002	0,00002
Mean - M=0	0,00014	0,00014	0,00004	0,00004	0,00002	0,00002
Asymp. Sig.	0,95396	0,81736	0,95013	0,96930	0,98848	0,90043

Shadow cost for the exclusion, in total have similar characteristics to the inclusion in the LQ45 index that is no difference in the value of shadow cost either in the period of announcement (M=0), the period prior to the announcement (M-1) and the period of 6 months after announcement (M+6) with the value of the shadow cost of 0.00002. Whereas, the shadow cost of foreign shareholders also have the same characteristics as the shadow cost in total, with a shadow cost value of 0.00004. This result is in accordance with the statistical test results that no significant differences between the observed periods, with the sig. level respectively >0.05. But for the shadow cost value of local shareholders have different value, that are in the M=0 period amounts to 0.00014, in the M-1 period and M+6 period amount to 0.00013, these results indicate that local shareholders react more in anticipation of changes in the LQ45 index. However, referring to the statistical test results there are no significant differences between the observation period, by value of (α) sig. respectively >0.05.

RELATIONS BETWEEN STOCK ABNORMAL RETURN WITH STOCK LIQUIDITY, FIRM SIZE AND AGE OF STOCK IN THE STOCK MARKET

Testing results of abnormal return relations to stock liquidity, the Firm Size (FS) and the stock's age (SA). The stock liquidity is represented by relative bid-ask spread (RS) and Amihud's Illiquidity (ILQ). Relative bid-as spread (RS) is the quotient between the difference of the best ask price and the best bid price with the midpoint bid price of selling and buying and Amihud's Illiquidity (ILQ) as quotient between the absolute return value of the stock on a particular day (| r |) with Rupiah value of stock trading volume on a particular day (RpVol). Firm's size is the relative value of market capitalization to the value of LQ45 capitalization and the stock's age (Age) is the stock's listed in the exchange, can be seen in table 4.

TABLE 4: RELATIONS BETWEEN STOCK ABNORMAL RETURN WITH STOCK LIQUIDITY, FIRM SIZE AND AGE OF STOCK IN THE STOCK MARKET

	Variable	Inclusion to the LQ45 index		Exclusion to the LQ45 index	
		Coeff	Sig.	Coeff	Sig.
	Constant	-0,0081	0,0012	-0,0075	0,0928
Relative bid-ask Spread	RBS	-0,1107	0,3081	0,0893	0,2730
Amihud's Illiquidity	ILQ (Log)	0,0000	0,7406	-0,0001	0,2394
Firm size	RS	295,45	0,0000	265,08	0,0000
Stock's age	Age (Log)	0,0014	0,0431	0,0010	0,3911

The table 4 shows, for the inclusion category, the variable of firm's size and the stock's age has a significant effect on the abnormal return value of the stock with a tolerance level of error (α) of 1% for the variable of firm size and the tolerance level of error (α) of 5% for the variable of stock's age. Liquidity variables namely relative bid-ask spread and Amihud's illiquidity based on the significant test results did not reveal any effect on the abnormal return.

The variable of firm size in the inclusion category has a coefficient value of 295.45 with significant value of 0.0000 at (α) of 1%. Positive coefficient value shows positive or unidirectional correlation or relationship between the abnormal return to the firm's size. The increase in the firm's size value will affect the increase of abnormal return. The results are different from the results of study conducted by Chen et al (2004) to a group of stocks that enter/exit in the S&P 500 index, with the result that the firm's size had negative correlation with abnormal return.

The variable of the stock's age in the inclusion category has a coefficient value of 0.0014 with the significant value of 0.0431 at (α) of 5%. Positive coefficient values describe the positive correlation between the stock's age with the abnormal return. An increase in the period (age) of the issuer from the first time listed on the stock exchange until the test is performed and expressed in the percentage of age increase will affect the addition of abnormal return of 0.0014. The results of this study are consistent with the study conducted by Haningsih (2014), but different to the study conducted by Chen et al (2004).

Whereas, with reference to Table 4 for the exclusion category, there is only one variable that significantly influence the abnormal return of stock that occurs which is the variable firm's size with error tolerance level (α) of 1%. Relative bid-ask spread variable, Amihud's illiquidity and stock's age variable, based on the significant test results did not reveal any effect on the abnormal return. Firm's size variable in the group of issuers exiting the LQ45 index has a coefficient value of 265.08 with significant value of 0.0000 at (α) of 1%, illustrating positive or unidirectional correlation or relationship between the abnormal return of stock with the firm's size of the stock. This result is similar to the testing result for the inclusion category to the LQ45 index.

RECOMMENDATION / SUGGESTION

INVESTORS

Managerial implications that can be given from the results of this study is that the investors understand the effects arising from the information of LQ45 index changes can be used as a consideration in adjusting the investment portfolio on stock instruments conducted, so it is expected to provide a maximum rate of return or can minimize the risks to be borne by investors. Investors should perform observation on period where positive return occurs either for the category of issuers entering (inclusion) and the category of issuers exiting (exclusion) the LQ45 index. Age of stock listed in the stock exchange gives a positive influence on the stock return value, so the stock's age information is information that should be considered by investors in considering the investment portfolio conducted.

ISSUER (COMPANY)

Change in issuer's status, both for issuers entering (inclusion) and exiting (exclusion) the LQ45 index give effect to the stock market value of the issuer triggered by the decrease or increase in the stock market price and decrease or increase of the stock liquidity, or changes in the number of shareholders. In addition, the issuer must maintain the performance of the financial condition to remain in good condition and able to maintain positive growth which is a criterion that must be fulfilled by issuer to survive in the group of LQ45 index.

CONCLUSIONS

Based on test results of abnormal return for the group of issuers entering (inclusion) the LQ45 index, there are no differences in the level of abnormal return of stock in the period before and after the announcement. As for the group of issuers exiting (exclusion) the LQ45 index, there is a difference in the level of abnormal return for the period after the announcement. These results indicate that the influence of LQ45 index changes information to the level of abnormal return of stock only affect the group of issuers exiting the LQ45 index.

The test results of the investor reaction level as measured by the shadow cost proxies show that there is no difference in the investor reaction level in the periods before and after the announcement, both on the group of inclusion or exclusion from the LQ45 index.

The test results of the relationship of abnormal return of stock over the stock liquidity level, the firm's size and the stock's age in the stock market for the category of inclusion the LQ45 index is the variable of firm's size and the stock's age has a significant effect on abnormal return with an error tolerance level (α) of 1% for the variable of firm's size and the error tolerance level (α) of 5% for the variable of stock's age. Liquidity variables namely relative bid-ask spread and Amihud's illiquidity, based on the significant test results did not reveal any effect on the abnormal return. Whereas, for the category of exclusion the LQ45 index, there is only one variable that significantly influence the abnormal return of stock that occurs which is the variable of the firm's size with error tolerance level (α) of 1%. The variable of relative bid-ask spread, Amihud's illiquidity and stock's age based on the significant test results did not reveal any effect on the value of the abnormal return.

LIMITATIONS

This study is limited to the group of issuers that entering and exiting the calculation of LQ45 index based on the announcement of changes in LQ45 index composition over the period 2011-2015 as measured against the level of abnormal return, stock liquidity and investor reaction.

SCOPE FOR FURTHER RESEARCH

Based on the above mentioned, for further study, it is suggested to perform tests on the issuers that persist in LQ45 index calculation after the announcement of the issuer composition changes of the LQ45 index and to further examined the difference with the group of stocks entering and exiting the LQ45 index calculation. The study on investor reaction variable based on the composition of securities ownership can be done in more detail not only referring to the investor's status (foreign investor and local investor) as in this study, but more detailed to the type of investors whether individual, mutual fund, company, insurance, securities companies, pension funds, banks or foundations.

REFERENCES

1. Ajireswara A. (2014). "Volatility transmissions from major stock market to the Indonesian Stock Market: Empirical evidence from the Jakarta Composite Index and the Jakarta Sectoral Index," Thesis, Bogor Agriculture University, Bogor.
2. Amihud Y. (2002). "Illiqiudity and Stock returns: cross-section and time-series effect". Journal of Financial Markets, Vol. 5(2002), pp. 31-56.
3. Anton Antonio JM., Rodriguez GS., Alonso Juan JM. (2012). "Does inclusion or exclusion from the IBEX35 affect stock performance?." African Journal of Business Management, Vol. 6(1), pp.152-159.
4. Blease-John R. Becker, Paul Donna L. (2010). "Does inclusion in a Smaller S&P Index Create Value?". Journal of Economic Literature, The Financial Review, Vol. 45, pp. 307-330.
5. Brealey R.A., Myers S.C., Allen F. (2011). "Principles of Corporate Finance". McGraw-Hill Education (Asia), Singapore.

6. Chen H., Noronha G., Singal V. (2004). "The price response to S&P 500 additions and deletions: Evidence of asymmetry and a new explanation". Journal of Finance, Vol. 59(4), pp. 1901-1930.
7. Elliot William B., Van Ness Bonnie F., Walker Mark D., Wan Richard S. (2006). "What drives the S7P 500 inclusion effect?. An analytical survey". Financial Management, Vol. 35(4), pp. 31-48.
8. Febrian E., Herwany A., Primadhi A. (2013). "Market Response to the composition change of Islamic index: Evidence from Indonesia." The Journal of Business and Finance Research, Vol. 7(5), pp. 23-34.
9. Haningsih L. (2014). "Pengaruh umur perusahaan, ukuran perusahaan, volume transaksi dan harga saham terhadap return perusahaan sebelum dan selama masa krisis di Indonesia. Jurnal Ilmu Ekonomi dan Sosial, Vol. 2(3), pp. 345-357.
10. Indonesian Stock Exchange. (2011-2015): Pengumuman saham emiten yang masuk dan keluar dalam indeks LQ45. Jakarta.
11. Jogiyanto H. (2014). "Teori Portofolio dan Analisis Investasi". BPFE Yogyakarta, Indonesia.
12. Nokowati R. (2015). "Analysis of legislative election impact on 2004, 2009 and 2014 to the Returns of LQ45 Stock". Thesis, Bogor Agriculture University, Bogor.

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