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ANALYSIS OF ABNORMAL RETURN AND TRADING VOLUME ACTIVITY BEFORE AND AFTER THE LQ45 COMPANY CASH DIVIDEND ANNOUNCEMENT FOR THE 2020 PERIOD

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Abstract

An increase in the trading volume of dividend-declaring shares at a particular moment may indicate that the company is performing well and has promising prospects. The dividend announcement includes crucial information for investors seeking abnormal returns. This study seeks to determine and assess whether there is a difference between AR and TVA before to and following the release of cash dividends. This study's data analysis method is a parametric statistical data analysis method. This method is used to statistically evaluate population parameters, or in other words, to test population size using pre-selected sample data and a significance level () of 0.05 or 5%. A data set is considered regularly distributed if asym.sig is less than 0.05. Sig. 0.277 > 0.05 indicates that there is no change in the average abnormal return before and after the declaration of cash dividends for LQ45 Company 2020. The findings of evaluating the sample data for trading volume activity indicate, with a significance level of 0.000 < 0.05, that there is a difference in trading volume activity before and after the release of cash dividends for LQ45 Company 2020. A significant negative abnormal return value at t-4, t-1, t0, t+3, t+4, and t+5 conveyed bad news, therefore investors overreacted to alter stock prices, resulting in disparities in trading volume activity before to and following the announcement of cash distributions. Indirectly, the declaration of cash dividends can impact the trading volume activities of LQ45 Index-listed businesses.

Keywords: *Abnormal Return, Cash Dividend, Cash Dividend Announcement, LQ45 Company, Trading Volume Activity*

1. INTRODUCTION

The announcement of dividends is one of the means that can be used to obtain information about the actual condition of the company (S. P. Sari & Lestari, 2015). There is a signaling theory, which was first expressed by Spence in 1973, which says that the announcement given by the information sender (company) to the recipient of information (investor) is a signal or signal about the condition of the company at the present time as well as an illustration of the current state of the future performance of the company (Elvira & Praptoyo, 2022).

Return is one of the factors underlying the owners of capital in making investments (P. A. Sari & Hidayat, 2022). The purpose of investors in general is to find a rate of return on investment, both income from dividends (dividend yield) and the amount of profit obtained from the sale of their investment assets (capital gain) (Siregar, 2019). In fact, investors will try to invest their capital in company shares that are able to provide interest, either in the form of dividends or capital gains.

Any information related to the company's activities in the capital market will be the basis for making decisions by investors in terms of investing in a company, whether to buy or sell shares. Thus, it can be seen that each information will be interrelated with the response that will be shown by investors who will have the ability to influence the increase or decrease in stock prices.

One of the most common information used by investors in making decisions is corporate action. In general, corporate action can affect several things such as the price of outstanding shares, share ownership structure, stock price movements and other things that have an influence on stake holders, especially share holders (Nilam & Utomo, 2010).

The profit sharing policy regarding the amount of retained earnings and dividends to be distributed is regulated in the General Meeting of Shareholders (GMS). There are various types of dividends distributed to shareholders, including cash dividends, stock dividends, liquidating dividends, and property dividends (Damayanti & Pratama, 2018). However, the types of dividends that are often given to shareholders are cash dividends and stock dividends. Cash dividend is a type of dividend given to investors in the form of cash or cash, while stock dividends are a type of dividend given to investors in the form of shares (Jelanti, 2022).

Investors will swiftly react to dividend announcements in efficient market circumstances. A rise in the trading volume of a company's shares that declare dividends at a specific moment indicates that the company's performance is strong and its future prospects are promising (Azhary, 2015). This increase in investor interest may cause the stock price of the company to rise. With this rise, it is clear that the dividend announcement offers crucial information for investors to get a return that exceeds the predicted return (abnormal return).

Previous studies have had mixed results on review events regarding the information contained in dividend announcements. Some results state that they have an effect and some state that dividend announcements have no effect on abnormal returns and trading volume activity.

Due to the fact that there have been earlier studies with varying findings, as well as changes in matters relating to research variables that are independent of external influences, and the fact that these findings are supported by a number of theories that can assist in research, it is the desire of researchers to conduct research to determine whether there is a difference between Abnormal Return and Trading Volume Activity before and after the announcement of cash dividends on LQ45 companies for the 2020 period.

2. RESEARCH METHODS

The population is the total generalization area comprised of persons with the qualities and attributes selected by the researcher for study, from which inferences can be formed (Sugiyono, 2017). According to the IDX Announcement Attachment No. Peng-00014/BEI.POP/01-2020 dated January 27, 2020, the population of this study consists of all companies included in the LQ45 Index, as many as 45 companies in total.

The sample methodology utilized in this study was purposive sampling. According to Sugiyono (2017), purposive sampling is a sample method with a number of factors to consider. The purpose of sampling in the study, namely; first, companies whose shares are included in the LQ45 index during the study period; second, LQ45 companies that have complete data that can be used in research, such as stock prices, JCI, number of

shares outstanding, and issuer's share trading volume during the 2020 period; and third, companies that carry out corporate actions in the form of announcements of cash dividend distributions without other corporate actions during the study period.

LQ45 companies that carry out corporate actions in the form of announcements of cash dividend distributions and have complete data that can be used in research and are actively traded. Based on the considerations that have been described, the study will use thirty-five (35) companies that are already in accordance with the criteria for the sampling material.

The data analysis method used in this study is a parametric statistical data analysis method. This method is used to test population parameters statistically, or in other words, this method is used to test population size using pre-selected sample data.

The study made use of a few different types of statistical tests, the first of which was a descriptive test, which was conducted with the intention of elaborating on the traits or characteristics of the primary research variables. In the second step of the process, the normality test is carried out to ascertain if the data on the independent variable, the data on the dependent variable, or both of them are regularly distributed. Third, the difference test, which seeks to determine whether or not there is a major difference between the average return before and after the release of cash dividends that have the same value or do not have the same value considerably. Fourth, The testing of the hypothesis that there is a correlation between the different variables in the research is the fourth step.

3. RESULTS AND DISCUSSION

Based on the characteristics that have been determined in the previous sampling, there are thirty-five (35) companies that match the characteristics of the proposed sample, namely:

1) Ace Hardware Indonesia Tbk. (ACES)
2) Adaro Energy Tbk. (ADRO)
3) AKR Corporindo Tbk. (AKRA)
4) Aneka Tambang Tbk. (ANTM)
5) Astra International Tbk. (ASII)
6) Bank Central Asia Tbk. (BBCA)
7) Bank Negara Indonesia (Persero) Tbk. (BBNI)
8) Bank Rakyat Indonesia (Persero) Tbk. (BBRI)
9) Bank Tabungan Negara (Persero) Tbk. (BBTN)
10) Bank Mandiri (Persero) Tbk. (BMRI)
11) Bank Tabungan Pensiunan Nasional Syariah Tbk. (BTPS)
12) Charoen Pokphand Indonesia Tbk. (CPIN)
13) Ciputra Development Tbk. (CTRA)
14) XL Axiata Tbk. (EXCL)
15) H.M. Sampoerna Tbk. (HMSP)
16) Indofood CBP Sukses Makmur Tbk. (ICBP)
17) Indofood Sukses Makmur Tbk. (INDF)
18) Indah Kiat Pulp & Paper Tbk. (INKP)
19) Indocement Tunggal Prakarsa Tbk. (INTP)
20) Indo Tambangraya Megah Tbk. (ITMG)
21) Japfa Comfeed Indonesia Tbk. (JPFA)
22) Jasa Marga (Persero) Tbk. (JSMR)

23) Kalbe Farma Tbk. (KLBF)
24) Perusahaan Gas Negara Tbk. (PGAS)
25) Bukit Asam Tbk. (PTBA)
26) PP (Persero) Tbk. (PTPP)
27) Semen Indonesia (Persero) Tbk. (SMGR)
28) Tower Bersama Infrastructure Tbk. (TBIG)
29) Pabrik Kertas Tjiwi Kimia Tbk. (TKIM)
30) Telekomunikasi Indonesia (Persero) Tbk. (TLKM)
31) Sarana Menara Nusantara Tbk. (TOWR)
32) United Tractors Tbk. (UNTR)
33) Unilever Indonesia Tbk. (UNVR)
34) Wijaya Karya (Persero) Tbk. (WIKA)
35) Waskita Karya (Persero) Tbk.(WSKT)

3.1. Abnormal Return Calculation

Abnormal Return is the discrepancy between the anticipated and actual returns. Therefore, prior to computing abnormal returns, it is necessary to calculate the actual return and the expected return during the event period. Using the following formula, the calculation is performed for 11 days, namely 5 days before and 5 days after the declaration of cash dividends.

3.1.1. Actual Return

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

Information:
Ri,t = *Return* realization of shares i on day t
Pi,t = stock price i on day t
Pi,t-1 = Stock price i on day t-1

An example of calculating the actual return is as follows.\

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

$$R_{aces,t-5} = \frac{P_{aces,t-5} - P_{aces,t-6}}{P_{iaces,t-6}}$$

$$R_{aces,t-5} = \frac{1.690{,}74 - 1.681{,}08}{1.681{,}08}$$

$$R_{aces,t-5} = 0{,}00574712354455299$$

3.1.2. Expected Return

$$E(R_{i,t}) = RM_{i,t} \text{ or}$$

$$RM_{i,t} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Information:
E(Ri,t) = Expected return of the i-th security in period t
RMi,t = *Return* market in the estimation period t
JCI = composite stock price index in period t
JCI t-1 = composite stock price index in period t-1

An example of calculating the expected return is as follows.

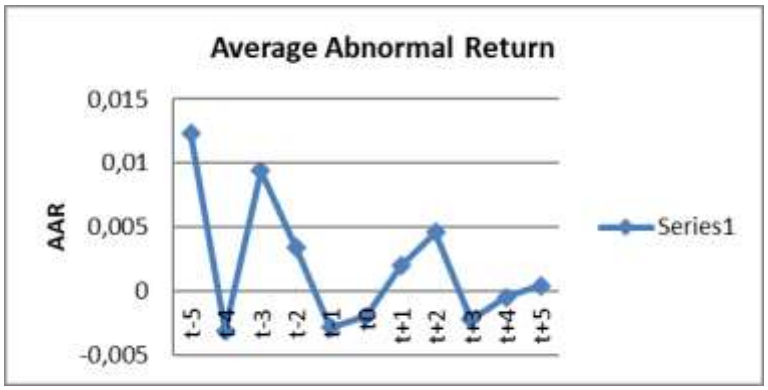
$$RM_{i,t} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$
$$RM_{aces,t-5} = \frac{IHSG_{aces,t-5} - IHSG_{aces,t-6}}{IHSG_{aces.t-6}}$$
$$R_{aces,t-5} = \frac{5.149{,}626953 - 5.149{,}629883}{5.149{,}629883}$$
$$R_{aces,t-5} = -0{,}000000568973$$

3.1.3. Abnormal Return

$$AR_i = R_i - E(R_i)$$
$$AR_{aces,t-5} = R_{aces} - E(R_{aces})$$
$$AR_{aces,t-5} = 0{,}00574712354455299 - (-5{,}689729294279)$$
$$AR_{aces,t-5} = 0{,}0183214587$$

3.1.4. Average Abnormal Return

$$AAR_{it} = \frac{\sum_{i=1}^{k} AR_{it}}{K}$$
$$AAR_{t-5} = \frac{0{,}432102730289526}{35}$$
$$AAR_{t-5} = 0{,}01234579$$



Source: Processed Data (2022)

Figure 1. Average Abnormal Return movement

3.1.5. Calculating Trading Volume Activity

$$TVA_i = \frac{\sum Shares\ i\ traded\ at\ time\ t}{\sum Shares\ i\ outstanding\ at\ time\ t}$$

$$TVA_{aces,t-5} = \frac{\sum Ace\ stock\ traded\ time\ t-5}{\sum Shares\ i\ outstanding\ at\ time\ t-5}$$

$$TVA_{aces,t-5} = \frac{13.366.200}{80.749.900}$$
$$TVA_{aces,t-5} = 0{,}165525901580064$$

3.1.6. Calculating Average Trading Volume Activity

$$XTVA_{it} = \frac{\sum_{i=1}^{n} TVA_{i,t}}{n}$$
$$XTVA_{t-5} = \frac{30{,}956942067494}{35}$$
$$XTVA_{t-5} = 0{,}884484059071256$$

Source: Processed Data (2022)

Figure 2. Movement of Average Trading Volume Activity

3.2. Descriptive Analysis

One of the methods of data analysis that is utilized in research to explain descriptively is known as descriptive analysis. To put it another way, the researcher gives an overview of the features of the sample based on each of the variables that were researched using descriptive analysis. The information provided describes the lowest possible value, the highest possible value, the average value (mean), as well as the standard deviation of the average abnormal return and trading volume activity derived from the sample data five days before and five days after the announcement of cash dividends. Additionally, the information describes the minimum value and the maximum value.

Table 1. Descriptive Test Results Abnormal Return

Descriptive Statistics					
Date	N	Minimum	Maximum	Mean	Std. Deviation
T-5	35	-0,0626	0,101937	0,01235	0,02868378
T-4	35	-0,0872	0,1036803	-0,0031	0,033982369
T-3	35	-0,0495	0,0650687	0,0094	0,028071171
T-2	35	-0,0358	0,0838658	0,00346	0,025294198
T-1	35	-0,0409	0,0546547	-0,0028	0,02025625
T0	35	-0,0407	0,0532364	-0,0019	0,025180069
T+1	35	-0,052	0,0600253	0,00198	0,026215162
T+2	35	-0,0815	0,0791153	0,00462	0,029515833
T+3	35	-0,0693	0,0450855	-0,0022	0,020746962
T+4	35	-0,0552	0,0547739	-0,0005	0,021053508
T+5	35	-0,1019	0,0702241	-0,0006	0,028114172
Valid N (listwise)	35				

Source: Data processed, 2022

The preceding table provides descriptive statistics for the sample size, including the lowest value, maximum value, and average standard deviation of anomalous return in the five trading days preceding and following the announcement of the cash dividend. The value for the largest minimum is found at T-2 of -0.03581722 and for the smallest minimum value is found at T+5 of -0.10190686. While the largest maximum value is at T-4 of 0.10368029 and the smallest maximum value is at T+3 of 0.04508553.

The standard deviation value is used as an indicator of how far the deviation from the value obtained is from the expected value, the highest value is at T-4 of 0.03398236879 and the smallest value is at T-1 of 0.02025625041.

Table 2. Trading Volume Activity Descriptive Test Results

Descriptive Statistics					
	N	Minimum	Maximum	mean	Std. Deviation
T-5	35	,02290670	4.59244193	,8844840592	1.09954703113
T-4	35	,02243976	4.16943387	,8766411489	1.06236667433
T-3	35	,01880253	3.95017088	,9540203792	1.05091106690
T-2	35	,03595654	3.33773068	,9314099023	1.04174117669
T-1	35	,04487991	3.04770217	,9548423533	,91633160388

T0	35	,02379587	2,91721078	,8629207185	,81548413650
T+1	35	,04637449	3.68516951	,8997314296	,91654934991
T+2	35	,04190532	3.65750163	1.0291106842	1.06493973030
T+3	35	,05125309	3.77511873	,95626789999	1.07813316789
T+4	35	,03876863	5.03262343	,9991769026	1.25965793774
T+5	35	,03449603	3.86734640	,9271140909	1.01583259570
Valid N (listwise)	35				

Source: Appendix

The preceding table provides descriptive statistics for the sample size, including the lowest value, maximum value, and average standard deviation of anomalous return in the five trading days preceding and following the announcement of the cash dividend. The value for the largest minimum is found at T+3 of 0,05125309 and for the smallest minimum value is found at T-3 of 0,01880253. While the largest maximum value is at T+4 of 5,03262343 and the smallest maximum value is at T+3 of 0,04508553.

The standard deviation value is used as an indicator of how far the deviation of the value obtained from the expected value is, the highest value is at T-4 of 0,03398236879 and the smallest value is when the announcement of cash dividends occurs (T0) of 2,91721078.

3.3. Normality test

This study employed the Kolmogorov-Smirnov test with a significance threshold of 5% to examine the normality of the data. The data can be said regularly distributed if the significance level exceeds 5% or 0.05. Alternatively, if the significance value of the data is less than 5% or 0.05, it can be concluded that the data are not regularly distributed. The following are the findings of the Kolmogorov-Smirnov test.

Table 3. Normality Test Results of AAR and ATVA

One-Sample Kolmogorov-Smirnov Test		
	asympsig value.	Conclusion
AAR Before	1.004	Normal Distribution
AAR After	,925	Normal Distribution
Atva Before	1.057	Normal Distribution
Atva After	1,080	Normal Distribution
a. Test distribution is Normal. b. Calculated from data.		

Source: Appendix

According to the findings presented in the previous section about the normalcy test, it is clear that all of the abnormal return values and the trading volume activity values that occurred throughout the research day have a significance value that is more than 5%, or 0.05. Therefore, one can draw the conclusion that all data follow a normal distribution, and one can proceed to apply various approaches of data analysis. Both a One Sample and a Paired Sample T-test were performed.

3.4. Different Test

The significant value of the average abnormal return and the average trading volume activity was determined with the use of a One Sample T-test. A significance level of 5%, or 0.05, is used in the testing that is carried out. If the value of sig. is > 0,05, it indicates that there is no significant difference. On the other hand, if the value of sig. is < 0.05, it indicates that there is no significant difference.

Table 4. Abnormal Return Test Results

One-Sample Test		
Date	Value of Sig.	Conclusion
T-5	0.016	Significant
T-4	,595	Insignificant
T-3	0.056	Insignificant
T-2	,423	Insignificant
T-1	,414	Insignificant
T0	,650	Insignificant
T+1	,657	Insignificant
T+2	,361	Insignificant
T+3	,529	Insignificant
T+4	,900	Insignificant
T+5	,908	Insignificant

Source: Data processed, 2022

Based on the table above, it can be seen that the test of information content seen from abnormal returns which have significant differences during the study period almost all of them stated that there were no significant differences. There is only one data that has a significance value of 0.016 <0.05, which means that there is a significant difference at t-5.

Table 5. Trading Volume Activity Differences Test Results

One-Sample Test		
Date	Value of Sig.	Conclusion
T-5	,000	Significant
T-4	,000	Significant
T-3	,000	Significant
T-2	,000	Significant
T-1	,000	Significant
T0	,000	Significant
T+1	,000	Significant
T+2	,000	Significant
T+3	,000	Significant
T+4	,000	Significant
T+5	,000	Significant

Source: Data processed, 2022

Based on the table above, it can be seen that the test of information content seen

from the trading volume activity which has significant differences during the study period all stated that there were significant differences during the research period. This happens because all data significance values are 0.000 < 0,05.

3.5. Hypothesis Testing

The second hypothesis testing was carried out in order to determine the difference in the significant value that existed between the average abnormal return (AAR) and the average Trading Volume Activity (ATVA) throughout the course of the research. The average anomalous return and trading volume activity will be subjected to a paired sample t-test in order to assess the hypothesis. This will be done throughout the course of the investigation.

The evaluation criteria were evaluated with a degree of confidence of 95% and a significance level of 5%, or 0.05. If the value of asympsig is greater than 0.05, then there is no significant difference between the average abnormal return and the average trading volume activity during the study period. On the other hand, if the value of asympsig is less than 0.05, then there is a significant difference between the average abnormal return and the average trading volume activity during the study period.

Table 6. AAR Hypothesis Test Results

Paired Samples Test		
		Sig. (2-tailed)
Pairs 1	AAR Before - AAR After	,277

Source: Data processed, 2022

As a result of the fact that the value of sig. 0.277 > 0.05, which is shown in the table that was just shown, one can get the conclusion that there is no difference between the average and the significant abnormal return over the time period under consideration.

Table 7. ATVA Hypothesis Test Results

Paired Samples Test		
		Sig. (2-tailed)
Pairs 1	ATVA Before - ATVA After	,000

Source: Data processed, 2022

It is possible to draw the following conclusion based on the data presented in the table above: the value of sig. 0.000 < 0.05 indicates that there is a statistically significant difference in the amount of average trading volume activity that occurred during the time period under consideration.

The conclusion that can be drawn from the findings of the study's final analysis is that there is no difference in the average abnormal return before and after the announcement of cash dividends during the time period covered by the study. This finding is based on statistical tests that were performed on sample data from 35 different

companies. In the meantime, there is a difference in the average trading volume activity before and after the release of cash dividends throughout the time period covered by the study. This difference may be seen when comparing the two periods. This is supported by the findings of the paired sample t-test, which compared the average anomalous return both before and after the announcement of cash dividends and found that the value of sig. 0.277 > 0.05.

Previous studies that found an average abnormal return with no difference between before and after the announcement of cash dividends were consistent with the findings of several previous researchers, including Amrulloh & Muis (2019), Nuraya & Larasati (2020), Kusno & Hartanto (2018), and (Silalahi & Sianturi, 2021).

The results of the tests conducted on the average trade volume activities indicate that there are statistically significant variations, as indicated by the tests' sig values. 0.000 < 0.05. The test findings demonstrate that for testing the second hypothesis (H2), Ha2 is accepted and H02 is rejected, as there is a difference in the average trading volume activity before and after the release of cash dividends at LQ45 Company for the 2020 Period. The market reaction during the research period indicates information leakage, where investors are aware of rumors about the distribution of dividends to be distributed or other information that can have an impact on stock price movements. So that investors can predict and anticipate the announcement of cash dividends.

Theoretically, the release of cash dividends can influence investors' evaluations while making investment decisions, resulting in different trading volume activity before and after the announcement. Indirectly, it is possible to assume that the release of cash dividends can affect the trading volume activity of LQ45 Index businesses.

4. CONCLUSION

According to the results of data analysis that has been carried out on thirty-five sample data of LQ45 Index companies that announced cash dividends for the 2020 period, several conclusions can be drawn including the following.

1) The test results on abnormal return sample data using the paired sample t-test for 5 days before and 5 days after the announcement of cash dividends showed a sig value. 0.277 > 0.05. Based on these results, it can be concluded that H01 is accepted and Ha1 is rejected, where there is no difference in the average abnormal return between before and after the announcement of cash dividends in LQ45 Companies for the 2020 Period.
2) Using the paired sample t-test on trading volume activity sample data for five days before and five days after the release of cash dividends, a significant value was determined. 0.000 < 0.05. On the basis of these results, it is possible to conclude that Ha2 is approved and H02 is rejected, if there is a difference in the average trading volume activity before and after the release of cash dividends in LQ45 Companies for the 2020 Period.
3) Theoretically, the announcement of cash dividends can impact the investing decisions of investors, resulting in different trading volume activity before and after the announcement of cash payouts. Indirectly, it may be determined that the declaration of cash dividends can affect the trading volume activity of businesses included in the LQ45 Index.

Based on the aforementioned research findings, the following recommendation can be made.

1) There are other ways for identifying anomalous returns in this study, therefore there is no need to rely on the outcomes of this study; rather, it is preferable to use other approaches to obtain potentially more diversified results.
2) Investors should be more prudent when making investment selections in order to generate profits or avoid losses on business actions (announcements) that can affect stock prices on the market.

The results of the study indicate that the average trading volume activity before and after the dividend announcement is distinct. Consequently, it can be said that the release of cash dividends can influence trading volume activities. This can be a factor for issuers to be even more prudent while conducting corporate actions.

REFERENCES

Amrulloh, A., & Muis, M. A. (2019). Analisis Dampak Pengumuman Dividen Terhadap Perubahan Harga, Abnormal Return, Dan Volume Perdagangan Saham Sebelum Dan Sesudah Pembagian Dividen Bank Pembangunan Daerah Jawa Timur Tbk Tahun 2015-2017. *Riset: Jurnal Aplikasi Ekonomi Akuntansi Dan Bisnis*, *1*(1), 16–35.

Azhary, H. (2015). *Analisis Pengaruh Kebijakan Dividen dan Struktur Kepemilikan Terhadap Return Saham pada Perusahaan Sektor Property, Real Estate & Building Construction yang Terdaftar Di Bei Periode 2012-2014*. UII, Yogyakarta.

Damayanti, I., & Pratama, R. A. (2018). Reaksi Pengumuman Deviden. *Prosiding Seminar Nasional Darmajaya*, *1*(1), 126–133.

Elvira, I. E., & Praptoyo, S. (2022). Harga Saham Sebelum Dan Sesudah Kebijakan Dividen. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, *11*(10).

Jelanti, D. (2022). The Effect Of Company Size, Stock Return, And Trading Volume On The Bid-Ask Spread Of Stocks On Lq45 Companies Listed On The Idx (2016-2020). *JOURNAL OF MANAGEMENT, ACCOUNTING, GENERAL FINANCE AND INTERNATIONAL ECONOMIC ISSUES (MARGINAL)*, *2*(1), 157–171.

Kusno, J. I., & Hartanto, F. T. (2018). Dampak Pengumuman Pembagian Dividen Kas Terhadap Abnormal Return Pada Indeks LQ-45. *Jurnal Riset Akuntansi Dan Keuangan*, *6*(3), 441–452.

Nilam, L. N., & UTOMO, D. C. (2010). *Analisis Perbedaan Tingkat Abnormal Return Dan Rasio Keuangan Sebelum Dan Sesudah Merger Dan Akuisisi (Study Empiris pada Perusahaan LQ-45 di BEI yang melakukan merger dan akusisi tahun 2004-2007)*. UNIVERSITAS DIPONEGORO.

Nuraya, A. S., & Larasati, Y. (2020). Analisis Perbedaan Abnormal Return Sebelum Dan Sesudah Pengumuman Ex-Dividend Date Pada Perusahaan Manufaktur Di Bursa Efek Indonesia Periode Tahun 2011-2016. *Jurnal Ekonomi, Manajemen Dan Perbankan (Journal of Economics, Management and Banking)*, *4*(2), 56–65.

Sari, P. A., & Hidayat, I. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Return Saham Pada Perusahaan Otomotif Dan Komponen. *KRISNA: Kumpulan Riset Akuntansi*, *13*(2), 246–259.

Sari, S. P., & Lestari, W. R. (2015). Analisis Dampak Pengumuman Deviden Terhadap

Reaksi pasar (Study Pada Perusahaan indeks LQ 45). *Jurnal Manajemen Magister Darmajaya*, *1*(02), 168–185.

Silalahi, E. R. R., & Sianturi, R. I. (2021). Pengaruh Pengumuman Dividen Tunai Terhadap Abnormal Return Dan Trading Volume Activity Pada Perusahaan Keuangan Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Riset Akuntansi & Keuangan*, 42–48.

Siregar, O. K. (2019). Pengaruh Deviden Yield Dan Price Earning Ratio Terhadap Return Saham Di Bursa Efek Indonesia Tahun 2016 Sub Sektor Industri Otomotif. *Jurnal Akuntansi Bisnis Dan Publik*, *9*(2), 60–77.

Sugiyono. (2017). Penelitian Kuantitatif Kualitatif dan R&D. *Bandung: Alfabeta*.