

Article Type: Research Paper

Analysis of the Eid Al-Fitr Holiday Anomaly on Abnormal Return and Trading Volume Activity: Case Study of Jakarta Islamic Index During 2017-2020

Firman Pribadi* and Aldi Abilawa



AFFILIATION:

Master Program of Management,
Universitas Muhammadiyah
Yogyakarta, Special Region of
Yogyakarta, Indonesia

***CORRESPONDENCE:**

firmanpribadi@umy.ac.id

DOI: 10.18196/jai.v23i1.12894

CITATION:

Pribadi, F., & Abilawa, A. (2022).
Analysis of the Eid Al-Fitr Holiday
Anomaly on Abnormal Return and
Trading Volume Activity: Case
Study of Jakarta Islamic Index
During 2017-2020. *Journal of
Accounting and Investment*, 23(1),
114-127.

ARTICLE HISTORY

Received:

09 Oct 2021

Revised:

30 Oct 2021

29 Nov 2021

14 Jan 2022

Accepted:

17 Jan 2022



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JAI Website:



Abstract:

Research aims: This research aims to determine whether there is a significant difference in the average abnormal return on the Jakarta Islamic Index on the Indonesia Stock Exchange in 2017-2020 before and after the Eid al-Fitr holiday and find out whether there is a significant difference in the average trading volume activity on the Jakarta Islamic Index on the Indonesia Stock Exchange in 2017-2020 before and after the Eid al-Fitr holiday.

Design/Methodology/Approach: By utilizing an event study, the only significant difference was in the Average Trading Volume Activity (ATVA), showing that trading activity before the holiday was higher, and the opposite occurred in the 2020 period.

Research findings: The first research result is that investors could not earn any abnormal return on post- and pre-event windows since the differences between post- and pre-average abnormal returns were insignificant. The second result is a significant Eid al-Fitr anomaly through trading volume activity patterns in companies listed on the Jakarta Islamic Index on the Indonesia Stock Exchange. The results also indicate that the capital market in Indonesia is efficient in a semi-strong form of event in the pandemic era.

Theoretical contribution/Originality: The anomalies in the market prove that the market is not always efficient, and it defies the Efficient Market Hypothesis (EMH). These anomalies have addressed non-economic factors, such as religion or culture. As one of the anomalies in the market, this study on holiday had mixed results. In addition, the Jakarta Islamic Index was used since the event studied in this research was the Islamic holiday, and Indonesia has the largest Muslim population in the world.

Practitioner/Policy implication: This study is expected to be a reference material and information for companies about how investors respond to the Ramadan effect.

Research limitation/Implication: Regarding the sample, this study was still limited to companies listed in the Jakarta Islamic Index, which only consists of 30 companies, so it is advisable to use companies listed on the Indonesian Sharia Stock Index.

Keywords: Abnormal Return; Trading Volume Activity; Event Study; Holiday Anomaly

Introduction

Proposed by Fama (1970), the Efficient Market Hypothesis (EMH) assumes a “Fair Game” condition, where stock prices follow a random walk, or there is no consistent pattern in stock returns. Therefore, investors could not predict future prices using previous price data since price changes are independent. The hypothesis also believes that the market is considered efficient if investors are rational and the market absorbs all available information. The market price will fully and quickly adjust to new information because the information is cheap and available for everyone in the market (Yalçın, 2010).

However, market anomalies arise as market movements conflict with the Efficient Market Hypothesis (EMH). The evidence against this hypothesis is growing, and many studies have found the predictability of the returns. The investor rationality assumption has also been tested by the expanding number of studies examining the presence of anomalies (Wasiuzzaman & Al-Musehel, 2017). One of the anomalies is the holiday effect. A study (Ariel, 1970) found the effect of holidays, as evidenced by a higher return of up to nine to fourteen times on the value-weighted index. It can be evidence that holidays can affect the mood of investors, which makes investors not always behave rationally in making decisions, especially when investors are in a good mood (Wasiuzzaman & Al-Musehel, 2017).

Many studies support anomalies around the time of religious/cultural holidays. For instance, a study on the Chinese Lunar New Year Holiday (Yuan & Gupta, 2014) uncovered that the pre-event had a positive and significant effect in China, Hongkong, Japan, Malaysia, South Korea, and Taiwan. Another study on Jewish religious holidays, namely Rosh Hashana, Yom Kippur, and St. Patrick’s Day (Frieder & Subrahmanyam, 2004), revealed high returns on the two days before and on the day when the Rosh Hashanah was held but found a significantly lower return at the time of Yom Kippur and the day after. Their study also exposed that the trading volume was lower during this holiday. It is believed that the investors' sentiment and mood before, during, and after the religious or cultural occasion play a role in the stock market condition.

Moreover, many religious days are owned by Muslims worldwide, such as the Islamic New Year, the birthday of Prophet Muhammad (PBUH), the holy month of Ramadan, and Eid al-Fitr. One of the concern holidays is in the holiday month of Ramadan, especially during the Eid al-Fitr holiday. Many studies have raised the topic of stock performance during these occasions. One of them was conducted by Ali et al. (2017), investigating Muslim Holidays in the Asia stock market, including Bahrain, Pakistan, Saudi Arabia, and Turkey. They found that return on Eid al-Fitr was higher than any other day and became the highest average among Muslim holidays.

Specifically, the Ramadhan month plays a huge role in investor behavior. During Ramadhan, many religious activities are conducted by Muslims worldwide, one of which is fasting. Sonjaya and Wahyudi (2016) mention several factors caused by fasting during Ramadan month, such as the investors’ health during fasting, hunger experience during fasting that leads to social empathy to the poor, feelings of happiness and peaceful,

positive moods, and encouragement to do good deeds and prevent evil deeds, could support the Ramadhan's effect on the capital market. In addition, the month of Ramadan not only affects the individual spiritual aspect but also influences investor activities and social interaction since it can affect the economic activities in the country (Wasiuzzaman & Al-Musehel, 2017).

In this regard, changes in trading volume patterns also can be used to interpret market reaction or behavior in facing an event. Jatmiko et al. (2014) did not find a significant difference in the average abnormal return (AAR), both in the 2008-2010 and 2011-2013 periods. Otherwise, the average trading volume activity showed a significant difference between the days before and after the Eid Al-Fitr in 2011-2013. The study is also expected to assist investors in formulating strategies to maximize their profits.

Some of the above studies prove the existence of the Eid al-Fitr holidays' effect on the stock markets of countries with predominantly Muslim populations. Based on Worldatlas.com, in 2009, Indonesia had a population of 227,226,404 Muslims. Thus, Indonesia became the most populous Muslim country in the world. It makes Indonesia the right object to evaluate the anomalous effects of the Islamic holidays, especially the Eid al-Fitr holidays. Moreover, the Eid al-Fitr holiday in Indonesia is celebrated with great enthusiasm. Many traditions exist during Eid al-Fitr, such as mudik or homecoming tradition and open house tradition that lets other families, relatives, and friends visit their house and serve special dishes. Also, the holiday bonus can increase consumption around this holiday. It can be an opportunity for the companies to increase their profit during this occasion.

Therefore, the study aims to find any significant differences in the average abnormal return and average trading volume activity on the Jakarta Islamic Index on the Indonesia Stock Exchange in 2017-2020 and pre-pandemic in 2020 and pandemic time 2021 before and after the Eid al-Fitr holiday. Previously, Mansour and Jlassi (2014) found that average abnormal return (AAR) on three days pre-and one-day post-Eid al-Fitr was positively significant at the Pakistan Stock Market. However, the difference between this study and previous research lies in the number of days observing abnormal returns during the Eid al-Fitr holiday. In previous research, observations were carried out three days before and one day after the Eid al-Fitr holiday. Meanwhile, in this study, observations were conducted ten days before and ten days after Eid al-Fitr.

Theoretically, the author hopes this paper can contribute by becoming a reference or empirical data for further research. This paper is also expected to broaden researchers' insights about the efficient market hypothesis and its anomalies, particularly regarding religious anomalies, namely the effect of the Eid al-Fitr holiday, especially during the pandemic. In addition, the pandemic has greatly affected the running of the economy in Indonesia. Given this matter, whether it will significantly impact the abnormal returns and trading volume activity in the market or sector studied can be a consideration and reference for the future.

Practically, this study is expected to be reference material and information for companies about how investors respond to the Ramadan effect. This study is also expected to reference information regarding the Ramadan anomalies in Indonesia's capital market conditions. Furthermore, after this research was conducted, investors can use it in formulating strategies to maximize their profits.

Literature Review and Hypotheses Development

Muslim holidays are also included in the holiday effect. Most Muslim holidays are followed by the holiday. One of them is Eid al-Fitr, celebrated by every Muslim worldwide, especially in a country with a high Muslim population. In this case, Eid al-Fitr Holiday was investigated.

Stock Abnormal Return

Stock abnormal return is the difference between the actual return minus the expected return and can be interpreted as the market's reaction to an event (Jogiyanto, 2018). With this condition, the occurrence of abnormal return will certainly reflect the observed events, and no other economic factors occur simultaneously.

Trading Volume Activity

Trade volume activity is one of the things that can reflect market reactions. As known, information is essential for the investor to conduct stock analysis; information can affect investors' decisions to conduct transactions in the market. Trade volume activity can also be defined as the amount of transaction that occurs during a certain period (Hartini et al., 2019).

Efficient Market Hypothesis

Based on Jones (2012), a market can be considered efficient when all relevant information completely reflects all security prices. Jones also explains that in making buying and selling decisions, an investor will use all relevant information, such as all known information like past information and current information and information that can be reasonably inferred.

Market Anomalies

Yalçın (2010) mentions that a market anomaly is a market movement that contrasts with the efficient hypothesis. The anomaly itself occurs since the Efficient Market Hypothesis argument cannot explain several market movements. This concept, of course, has a different concept from the Efficient Market Hypothesis, stating that it is impossible to gain abnormal returns since all the stock prices already fully reflect the relevant information available.

Investor Behaviors, Sentiment, and Moods towards the Market

Behavioral finance can lead to bias, where market participants can behave irrationally by making decisions based on sentiment and moods (Chandra & Kumar, 2012). Concerning this, behavioral finance theory supports the anomalies in the market and contradicts the efficient market theory. With behavioral finance, how and why the market may be inefficient can be answered.

Eid al-Fitr in Indonesia

As a country with the largest Muslim population globally, Indonesia also celebrates Eid al-Fitr festive with great joy. Eid al-Fitr festive in Indonesia is always followed by a long holiday and several traditions that exist in this festive. Many traditions, such as homecoming tradition to gather with family at hometown, consuming special food and beverage during Ramadhan and Eid al-Fitr, Zakat payment tradition, and giving holiday bonus tradition, will increase sales and revenue for several companies. The long holiday also makes company and market closed temporarily, which will cause delays information. With this condition, the prices gap will appear before and after the holiday. Before the Eid al-Fitr holidays, the market will be crowded since investors try to conduct profit-taking in the market. The price could be high because the investors give positive sentiment since they experience the Ramadhan month ahead of the Eid al-Fitr holiday. As a blessed month for Muslims, Ramadhan month relates to the positive moods followed by positive emotions like happiness and optimism (Wasiuzzaman & Al-Musehel, 2017) This also supported by several studies conducted by Al-Hajieh et al. (2011), Białkowski et al. (2012), Gavriilidis et al. (2016), Al-Issis, (2015) has found that return during Ramadhan month is significantly higher rather than any other month in several predominantly Muslim countries. Based on the explanation, the hypothesis can be formulated:

H₁: *There is a significant difference in average abnormal return before and after the Eid al-Fitr holidays during 2017-2020.*

Eid al-Fitr celebration in Indonesia will also impact trading volume activity on the stock market. Before the Eid al-Fitr holiday arrives, investors experience Ramadhan month first. As a blessed month for Muslims, Ramadhan month will give a positive mood followed by positive emotions such as optimism and happiness, which can increase the tendency of the investors to invest (Al-Hajieh et al., 2011). This condition can increase the trading volume before the holiday comes. The profit-taking conducted by the investor before Ramadhan can also increase the trading volume activity (TVA) before the holiday. After the holiday, the celebration of Eid al-Fitr will continue for several days. In some places in Indonesia, the celebration of Eid al-Fitr festive continue until the seventh day after the event day. It makes the economic activity still not run well. With this condition, investors tend to wait until the celebration of Eid al-Fitr is completely over. Based on the explanation, the hypothesis can be formulated:

H₂: There is a significant difference in average trading volume activity before and after the Eid al-Fitr holidays during 2017-2020.

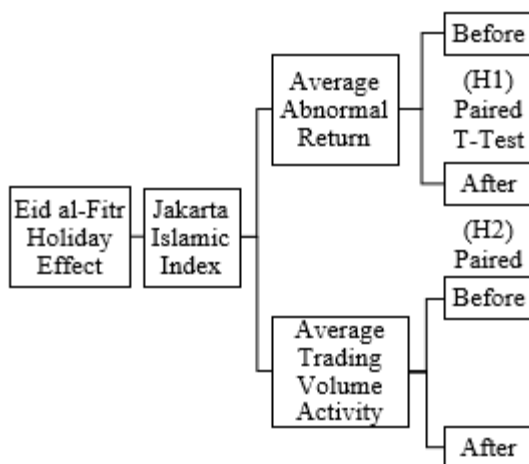


Figure 1 Research Model

Research Method

This research used the quantitative approach, namely an event study. An event study examines the impact of a particular event on the company's stock price using the data on the company's stock return (Jones, 2012). Using the event study technique, the researcher can assess the impact of a particular event on changes in stock prices (Hartini et al., 2019). As we can see from the Figure 1, we going to compare the Average Abnormal Return and the Average Trading Volume Activity before and after the Eid al-Fitr Holiday. The secondary data in the form of historical price data were used in this research to examine the event's impact. Other data like the trading volume data were also employed in this research to determine the event's impact on trading volume activity. This research data comprised the closed price stock and trading volume data of companies listed on the Jakarta Islamic Index, obtained from the Indonesia Stock Exchange website www.idx.co.id and Yahoo finance finance.yahoo.com. Jakarta Islamic Index was also chosen since it is a sharia index in Indonesia, consisting of thirty companies, so the companies are expected to correlate with the Islamic day closely.

The subject of this research was the Eid al-Fitr holidays anomaly with abnormal return and stock volume traded data as the dependent variable. Public companies listed on the Jakarta Islamic Index for the 2017-2020 period were the objects of this research. The population of this research was all companies listed on Indonesia Stock Exchange. Meanwhile, the sample of this study was companies listed on Jakarta Islamic Index. The purposive sampling technique was used in this research. The event period ranged about ten days before and after the Eid Al-Fitr holiday, with 100 days of estimation window.

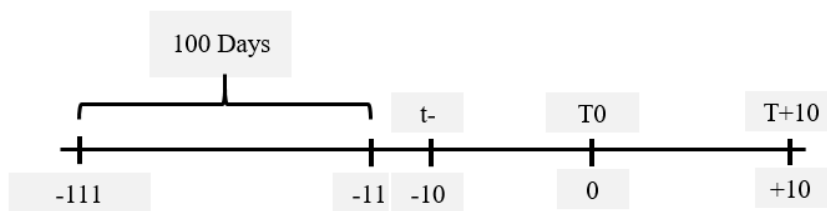


Figure 2 Estimation and Event Window

Based on the Figure 2, the event window used in this research is ten days prior and after the event date and the estimation window use in this research is 100 days. The presence of Eid al-Fitr is always announced by the government based on the presence of a tiny crescent moon called Hilal. The presence of Hilal is a sign of the new Hijri calendar. The description of the research window dates in Table 1.

Table 1 the Date of

	2017	2018	2019	2020
D-10	June 09 – June 22	May 24 – June 08	May 17 – May 31	May 06 – May 20
D+10	July 03 – July 14	June 20 – July 03	June 10 – June 21	May 26 – June 09

Variable Measurement

Variable (abnormal return) measurement

To calculate the abnormal return, calculate the actual and expected return first. The formula to calculate the actual return is:

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

Where: $R_{i,t}$ = Actual return of stock-i on t event period; $P_{i,t}$ = Closing stock price of stock-i on t event period; $P_{i,t-1}$ = Closing stock price of stock-i on t-1 event period.

The formula to calculate the expected return is:

$$E[R_{i,t}] = \alpha_i + \beta_i[R_{m,t}] + \varepsilon_{i,t} \tag{2}$$

Where: $E[R_{i,t}]$ = Expected return of stock-i on t event period; α_i = Intercept of Stock-i ; β_i = Beta of Stock-i; $R_{m,t}$ = Market return on t event period; $\varepsilon_{i,t}$ = residual.

To calculate the abnormal return, the formula is:

$$AR_{i,t} = R_{i,t} - E[R_{i,t}] \tag{3}$$

Where: $AR_{i,t}$ = Abnormal return of stock-i on t event period; $R_{i,t}$ = Actual Return of stock-i on t event period; $E[R_{i,t}]$ = Stock expected return of stock-i on t event period. The next step is to calculate average abnormal return and average cumulative abnormal return. The formulation for the average abnormal return:

$$AAR_t = \frac{\sum_{i=1}^N AR_{i,t}}{N} \quad (4)$$

Where: AAR_t = Average abnormal return; $AR_{i,t}$ = Abnormal return of stock-I on t period; N = Total security affected by the event.

Average cumulative abnormal return is a calculation of the total accumulation of average abnormal return in the event period for each security and could be calculated as:

$$ACAR_{(n1,n2)} = \sum_{t=1}^T AAR_{i,t} \quad (5)$$

Where: $ACAR_{(n1,n2)}$ = Cumulative average abnormal return security from the beginning of event period (n1) until (n2) day; $AAR_{i,t}$ = Average abnormal return.

Variable (trading volume activity) measurement

The trading volume activity can be calculated as follows:

$$TVA_{I,t} = \frac{\sum \text{stock } i \text{ traded on } t\text{-day}}{\sum \text{Outstanding stock } i \text{ on } t\text{-day}} \quad (6)$$

Where: $TVA_{I,t}$ = trading volume activity of stock-i on t event period; *stock i traded on t – day* = Stock-I which traded on t event period; *Outstanding stock i on t – day* = Outstanding or Issued stock-i on t event period.

Like the abnormal return, calculating its average is needed after calculating the trading volume activity. To calculate the average trading volume activity, the formulation can be seen as follows:

$$ATVA = \frac{\sum_t TVA_{I,t}}{n} \quad (7)$$

Where: $ATVA$ = Average trading volume activity; $TVA_{I,t}$ = Trading volume activity of stock-I on t-time; n = Number of securities.

Data Analysis Technique

In analyzing the data, first, the descriptive statistic was used to know the characteristic of the data (Rahmawati et al., 2018). From the descriptive statistics, the data's maximum, minimum, mean, and standard deviation were known. In this study, the data on abnormal return and trading volume activity variables were employed to measure the effectiveness of the Eid al-Fitr holiday. Descriptive research is either quantitative or qualitative in nature (Sekaran & Bougie, 2016).

The second step was the normality test, and it was done by testing each variable using the Kolmogorov-Smirnov Test (Ghozali, 2011). By looking at the 2-tailed significant value, whether the sample used in this research was normally distributed or not could be decided. If the significant level of the data is greater than 0.05 or (Sig) > 5%, it can be said that the data is normally distributed, and a parametric t-test and paired sample test will be applied. Otherwise, if the significant level of the data is lower than 0.05 or (Sig) < 5%, it can be said that the data is not normally distributed. Then, a non-parametric test using Wilcoxon Signed Rank Test will be applied.

After knowing the normality of the data, the hypothesis test based on the normality test result done in the previous step was conducted. Hypothesis testing was carried out to prove whether or not the Average Abnormal Return (AAR) and Average Trading Volume Activity (ATVA) before and after Eid al-Fitr were significantly different. In this research, the hypothesis test method was determined based on the normality test result.

Result and Discussion

The Indonesian Stock Market itself was chosen to be the topic of this study because Indonesia has the largest Muslim population, and the Eid al-Fitr holiday is considered the biggest religious holiday in the country. This research also proves that Indonesia's capital market is efficient in semi-strong form, meaning that all the available information could be absorbed quickly in the market.

Table 2 Hypothesis Testing Result of AAR

Statistic		AAR
Mean	Pre	0.0010235
	Post	-0.0000606
T		0.727
Df		9
Sig. (2-tailed)		0.486
Explanation		Not significant

Paired Sample T-Test for 2017-2020 Periods

Based on Table 2, the paired sample t-test result showed no significant difference in average abnormal return before and after the Eid al-Fitr holiday.

Table 3 Hypothesis Testing Result of AAR

Statistic		AAR
Mean	Pre	-0.0129400
	Post	-0.0145700
T		0.061
Df		9
Sig. (2-tailed)		0.953
Explanation		Not significant

Paired Sample for 2020 Period

It can be proven by the Sig. (2-tailed) of the Average Abnormal Return (AAR) of Eid al-Fitr of 0.486, bigger than 0.1. With this result, it was decided to reject H_1 . The same result also occurred in the Table 3 that showing no significant effect.

Based on Table 4, from the paired sample t-test result, there was a significant difference in Average Trading Volume Activity before and after the Eid al-Fitr holiday. It can be proven by the Sig. (2-tailed) of the Average Trading Volume Activity (ATVA) of Eid al-Fitr of 0.07, smaller than 0.1. With this result, it was decided to accept H_2 .

Table 4 Hypothesis Testing Result of ATVA

Statistic		ATVA
Mean	Pre	0.0016392
	Post	0.0013166
T		2.055
Df		9
Sig. (2-tailed)		0.07
Explanation		Significant*

Paired Sample T-Test for 2017-2020 Periods

The same result also occurred in Table 5 that there was a significant difference between ATVA before and after Eid al-Fitr in the 2020 period.

Table 5 Hypothesis Testing Result of ATVA

Statistic		ATVA
Mean	Pre	0.0026790
	Post	0.0052926
T		-4.946
Df		9
Sig. (2-tailed)		0.001
Explanation		Significant*

Paired Sample T-Test for 2020 Period

Discussion

Based on the H_1 test result, there was no significant difference in Average Abnormal Return (AAR) pre-and post-Eid al-Fitr holiday during 2017-2020. With this result, no pattern was created during the Eid al-Fitr holiday during the research period through the average abnormal return. The same result also occurred in the pre-pandemic in 2020 and pandemic time in 2021 that any pattern created could not be found by the moment of the Eid al-Fitr even though the COVID-19 pandemic occurs.

Figure 3 represents the Average Cumulative Abnormal Return (ACAR) and Average Abnormal Return movement (AAR) around Eid al-Fitr during 2017-2020. The highest average abnormal return could be the gain on the tenth day before the market close, and the lowest was the second day before the holiday. The value was 0.00744 and -0.00653, respectively. This finding also supported by Sukor (2012) that also found the abnormal return before the market closing due to Eid al-Fitr is the lowest.

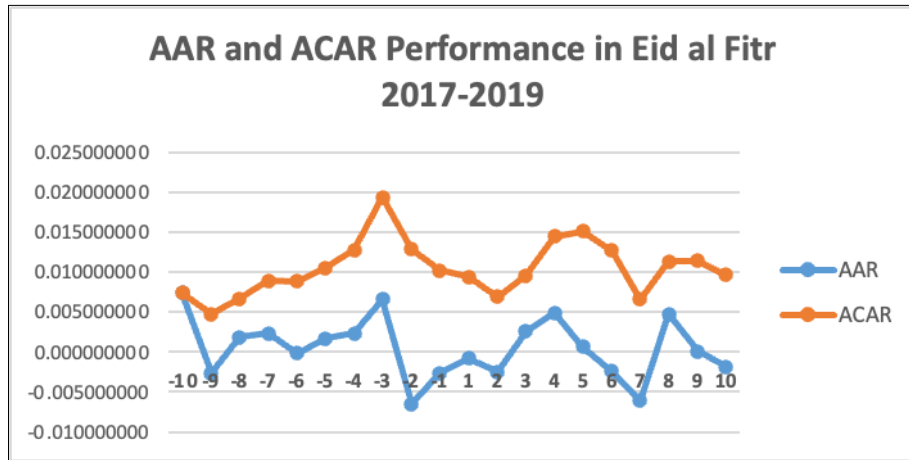


Figure 3 AAR and ACAR Performance on Eid Al-Fitr 2017-2020

The pre-abnormal return was higher because the demand for the stock was higher than the supply. This motif could be related to the behavior before Eid al-Fitr holidays, such as mudik or homecoming tradition, preparing for Eid al-Fitr holiday, and investing by utilizing their holiday allowance. Moreover, the investor usually does profit-taking and holds cash before the holiday. These things arise because the stock price increases, but the further impact is that the stock prices will decrease for a while. Moreover, it will impact decreasing abnormal returns around the Eid al-Fitr. The downward trend of ACAR two days before until two days after the Eid al-Fitr can prove that a negative abnormal return exists around the event date. this finding also similar with (Mansour & Jlassi, 2014) (Atala, 2015) Ali et al. (2017) that found positive abnormal return before the Eid al-Fitr.

Otherwise, the post-average abnormal return was lower than before the event. After the holidays, the investor will usually occupy the market and drift higher prices, leading to higher returns. However, the reversal could not push it as far as investors had hoped. The first and second days after the abnormal return was negative, probably related to the euphoria of Eid al-Fitr that lasted up to seven days after the Eid al-Fitr. The activities, such as returning from homecoming and the celebration of *Lebaran Ketupat* or the celebration of seven days after the Eid al-Fitr in several places in Indonesia, have made economic activities not fully implemented yet. This condition makes investors reluctant to trade and choose to wait until the Eid al-Fitr celebration is completely over.

The same result was also found in 2020. According to the test, there was also a significant difference in trading volume activity in the companies listed on Jakarta Islamic Index on Indonesia Stock Exchange. Moreover, there are differences between the 2017-2020 period and the 2020 period. The difference is that the ATVA before the holiday of Eid al-Fitr was lower than ATVA after the event, which can be seen from Figure 4. This condition is the opposite compared to the 2017-2020 period. As known, after the holiday, the investors were reluctant to conduct trading activity because the economic activity was not running fully, making the trading volume after the holiday Eid al-Fitr lower than after the event.

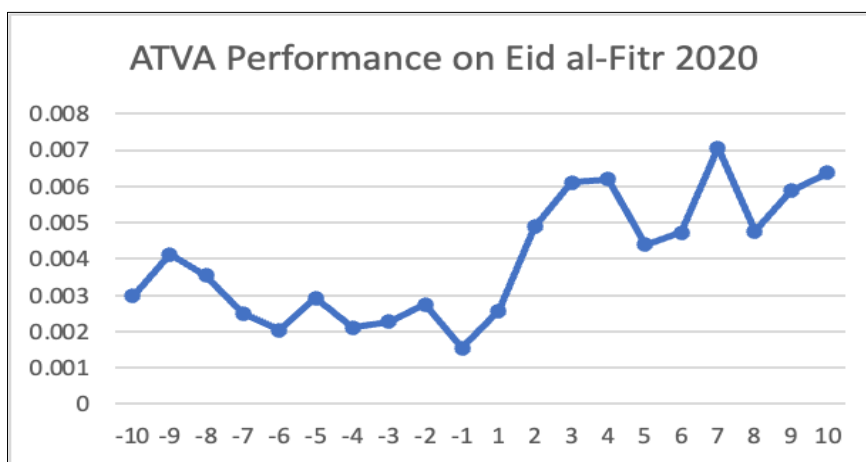


Figure 4 ATVA Performance on Eid al-Fitr 2020

The effect of Ramadhan month that gives good moods for investors also made the trading volume before the holiday of Eid al-Fitr between 2017 and 2020 was higher than after the holiday. However, in 2020, the investors were reluctant to do trading before the holiday since they were waiting for the announcement of the government policy about large-scale social restrictions. Investors preferred to conduct trading activity after the holiday since they wanted to reduce the risk of holidays. In 2020, the government policy announcement about large-scale social restrictions was also delivered during the Eid al-Fitr holiday, especially on May 22, 2020. It made the investor more likely to conduct trading activity after the holiday and react to the government's policy about large-scale social restrictions.

Conclusion

This research was conducted to find the impact of the Eid al-Fitr holiday regarding abnormal return and trading volume activity on the Jakarta Islamic Index on the Indonesia Stock Exchange during 2017-2020 and the period of 2020. Hence, the event study methodology was applied and implemented a single market model. The estimation window was 100 days before, and the event window was ten days before and after the event date. The abnormal return proxy and trading volume proxy were used for 18 sample companies for the period of 2017-2020 and 15 companies for 2020, which had met the research criteria.

Based on the research result analysis, there are two main points. First, the average abnormal return before the Eid al-Fitr holiday in 2017-2020 was higher than the abnormal return after the holiday. It shows that investors' sentiment and mood were good in both pre-and post-abnormal returns, making the difference of pre-and post-abnormal returns not significant. A negative abnormal return was also found two days before the holiday, meaning that markets quickly reacted to the Eid al-Fitr and brought the negative sentiment to the market. In the 2020 period, the average abnormal return before and after the Eid al-Fitr was negative, but the abnormal return before the Eid al-Fitr holiday

was also higher than the abnormal return after the holiday. This condition might occur since the investors reacted to the COVID-19 pandemic and the government's policy about the large-scale restriction.

Then, in the 2017-2020 period, pre- ATVA was higher than its post period. It was significant and convincing the existence of the Eid al-Fitr effect through ATVA. The investors were probably doing profit-taking action to fulfill their needs before the holiday approached or might save their money due to uncertainty of delayed information. Otherwise, different results were revealed in 2020 that the ATVA before the holiday was lower than before. This condition might occur since the investors were reluctant to do trading before the holiday since they were waiting for the government policy announcement about large-scale social restrictions. The significant difference of pre-and post-average trading volume activity in the 2017-2020 period and 2020 period proves that the trend was detected on Jakarta Islamic Index on Indonesia Stock Exchange and evidence that the Indonesia capital market is in semi-strong form of efficiency.

Based on the results, this research proves that Indonesia's efficient market is considered semi-strong, so the investor could not use the historical data and publicly available information to profit. This study also verifies that event study could be used to know the research objectives. However, there are several limitations to this research. It is advisable to use companies listed on the Indonesian Sharia Stock Index because this research did not consider the cofounding effect, and it is conceivable to use another method and another variable. In addition, this study period was only four years, starting from 2017 to 2020, which can be extended.

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