Testing the Ramadan Effect on Consumer Goods Industry and Miscellaneous Industry Companies Listed on the Indonesia Stock Exchange (IDX)

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ABSTRACT

This study aims to analyze the Ramadan Effect on the consumer goods industry and miscellaneous industry companies listed on the Indonesia Stock Exchange (IDX). The population in this study are all companies in the consumer goods industry and miscellaneous industry listed on the Indonesia Stock Exchange in 2020. The data source uses secondary data. The sampling technique used was purposive sampling. The number of samples in this study were 37 sectors of the miscellaneous industry and 43 sectors of the consumer goods industry with a total sample of 80 companies. The event windows in this study are (-5.5) and (-10.10). The data analysis method used is the Wilcoxon Signed Rank Test using SPSS 16. Investors and companies that can anticipate changes in investment behavior before and during the entry of the month of Ramadan which can result in losses in stock trading.

Keywords: Abnormal Return, Ramadan Effect.

1. INTRODUCTION

The ability of investors to gain investment returns to the capital market is influenced by market efficiency and the level of risk. According to Milosevic [1] the efficient market hypothesis explains that financial markets develop unstable on the value of securities which are characterized by a lack of stock trading, high market liquidity traffic that does not react significantly to changing market conditions. The efficient market hypothesis explains the existence of anomalies in financial market characteristics based on certain conditions such as the Ramadan Effect and January Effect which can ignore the efficiency of weak forms in the financial market. This situation can lead to gains and losses that take place abnormally, especially in developing countries.

Securities prices also often change following a seasonal pattern, during certain periods, such as the Monday effect, January effect and Ramadan Effect. The month of Ramadan has an effect on changes in stock prices due to changes in behavior where investors spend more time praying, but on the other hand there is also an increase in consumption by consumers in certain sectors. The possibility of abnormal returns in trading transactions during the month of Ramadan. This can be seen in the sectors on the Indonesia Stock Exchange before, during, and after the month of Ramadan in 2018 which took place from 17 May 2018 to 13 June 2018 namely:
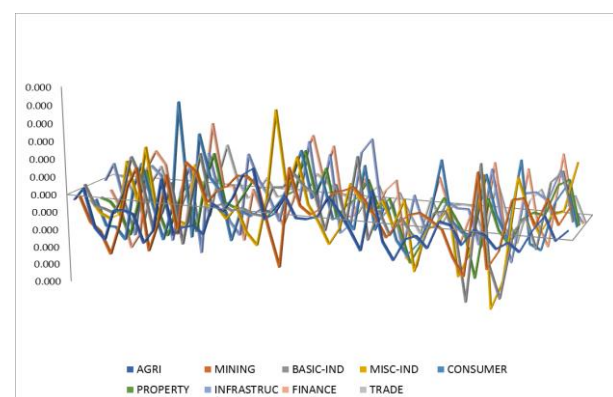

Figure 1 Development of Abnormal Return Ramadan Effect in 2018

Figure 1 shows abnormal returns in 9 sectors, namely agriculture (agriculture), mining (mining), basic industry and chemical (basic and chemical industry), miscellaneous industry (various industries), consumer

goods industry (consumer goods industry), property, real estate , and building construction (property, real estate, and building construction), infrastructure, utility, and transportation (infrastructure, utilities and transportation), finance (finance) and trade, service, and investment (trade, services, and investment) in the month Ramadan 2018. Figure 1 shows that all of the measured sectors have almost the same trend, namely a decline in stock returns as they approach the start of the month of Ramadan. Stock prices again have an increasing trend at the end of the month of Ramadan as it approaches the Eid al-Fitr. The fluctuations that have the highest rate of return change occur in the consumer goods industry and miscellaneous industry sectors. The highest stock return fluctuations were in the miscellaneous industry and consumer goods industry sectors of 0.051. The lowest return fluctuation was in the miscellaneous industry sector of 0.047. So this research is focused on these two sectors because they fluctuate with the direction of change that is too conspicuous when compared to other sectors.

Based on research presented by Andrikopoulos [2] the decline in stock prices approaching the month of Ramadan was more due to the fact that most investors were preparing to perform worship before the entry of the month of Ramadan and until the middle of the month of Ramadan. The amount of time used for worship can reduce the time to conduct stock exchange transactions, resulting in a decrease in stock demand. This decrease resulted in a decrease in stock prices that almost occurred simultaneously. However, ahead of the arrival of Eid al-Fitr, there was an increase in consumption by most Indonesians as part of the tradition of welcoming Eid al-Fitr. This is also used by investors to invest because of the high consumer consumption of the company's products.

Research conducted by Bash [3] concluded that there are differences in abnormal returns before and after the occurrence of an event (event study). Most studies abroad use the daily composite stock index to measure the Ramadan Effect, so the measurement is carried out in many countries. This makes the research unfocused because each country has a different culture in welcoming the month of Ramadan . Research in Indonesia conducted by Sonjaya [4] concluded that there was no difference in abnormal stock returns in ten Muslim countries, namely Indonesia, Morocco, Malaysia, Jordan, Bahrain, Oman, Qatar, Kuwait, Saudi Arabia, and Tunisia.

The differences in research results require further research to measure the Ramadan Effect in Indonesia. This research will focus on companies in the miscellaneous industry and consumer goods industry sectors listed on the Indonesia Stock Exchange. The difference between this study and previous research is that this research focuses on the miscellaneous industry

and consumer goods industry sectors which experienced significant fluctuations. This is done so that the research is more focused. This research only takes one object of research, namely the Indonesia Stock Exchange because each country has a different culture in welcoming the month of Ramadan. Most previous studies used adjacent days at the start of the month of Ramadan which were associated with days outside the month of Ramadan but did not reflect market changes that could actually cause abnormal returns. Conditions in the middle of the month of Ramadan are more directed towards a state of market stability which is the same as normal days. So in this study will conduct research at the time of the entry of the month of Ramadan.

Based on the phenomenon where there is a fluctuating trend before and during Ramadan in the miscellaneous industry and consumer goods industry sectors, it is necessary to conduct research with this theme. The results of many studies are contradictory so that further research is needed.

2. LITERATURE REVIEW

2.1. Efficient Market Hypothesis

The capital market will be efficient if there is competition between investment analysis that makes the securities market show the true price at any time. According to Husnan [5] the efficient market hypothesis explains that if the price always reflects all relevant information, then the price will only change when new information appears, but the new information in question is not information that is just a definition but changes can be estimated. Efficiency in the capital market is created because of the large number of securities analysts who carry out their activities and the competition between them where the efficiency of the capital market is closely related to information that is considered relevant .

According to Husnan [5] there are several forms of capital market efficiency levels, namely:

1) Weak form efficient capital market.

Weak form efficiency markets are situations in which prices reflect all the information available on past price records. Investors cannot get above-normal profit levels by using trading rules based on past price information.

2) Half-strong efficiency capital market

A semi-strong efficiency capital market is a situation in which prices reflect not only past prices but all published information. Investors cannot obtain above-normal profit levels by utilizing public information. Information about the issuance of new shares, announcements of earnings and dividends, changes in accounting practices, mergers, and stock splits are the

most common things in showing information quickly and accurately reflected in stock prices.

3) Strong form efficiency capital market

A capital market in a strong form is one where prices reflect not only all published information but also information that can be obtained from fundamental analysis about companies and the economy. Under these circumstances the capital market will be like an ideal auction house with a fair price and no investor can predict future stock price changes. The capital market in Indonesia is in a semi-strong position because the information submitted to the public only reacts at certain times.

2.2. Stock returns

According to Husnan [5] stock returns will change the cash flow of investors. Cash received by investors will come from two sources, namely dividends and the results of the sale of the shares. If the proceeds from the sale of the shares are higher than the purchase price, the investor will receive a capital gain. Meanwhile, if the investor sells the stock at a price lower than the purchase price, it is said to have suffered a capital loss. The cash flows from the resale of shares are also equivalent to the dividend flows that will be received by these shareholders. Stock returns are searched using the formula, namely:

$$\text{Rs} = \frac{H_t - H_{t-1}}{H_{t-1}} \tag{1}$$

Information:

RS = *Return* Share

Ht = Share Price Period t

Ht-1 = Previous Period's Share Price [5]

According to Jogiyanto [6], stock returns can be divided into two, namely:

1) Realized return

*Return*realization is the return that has occurred. Realized return is calculated using historical data. Realized return is important because it is used as the basis for determining expected return and future risk. In the context of an event study, realized return is the actual return that occurs. The actual return can be in the form of total return, relative logarithm of return ,relative return, and adjusted return, either adjusted for inflation or adjusted for exchange rates of other currencies. Return

$$\left[R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \right] \tag{2}$$

R_{it} : The true return for the i-th security at the event

P_{it} : Daily share price of security i at time t

P_{it-1} : Daily share price of security i at time t-1 (previous day)

2) Expected return (expected return)

Expected return is the return expected by investors. Expected return is estimated with the assumption that the event did not occur. Several models can be used to calculate expected returns. The models commonly used in research can be grouped into three categories, namely models without risk-adjusted, risk-adjusted models and control portfolio models. The market adjustment model is used in this study because it assumes that market index returns are the best estimator for estimating security returns at that time. Using this model, the estimated yield of a security is the same as the return on the market index, so there is no need to use the estimation period to form the estimation model as follows:

$$[E(R_{it}) = R_{mt}] \tag{3}$$

Information :

$E(R_{it})$: The expected return of the i-th security event period t

R_{mt} : Market return of the t-event period.

$$\left[R_{mt} = \left(\frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \right) \right] \tag{4}$$

Information :

R_{mt} : Market return at time t.

$IHSG_t$: Composite Stock Price Index at time t.

$IHSG_{t-1}$: Composite Stock Price Index at time t-1

2.3. Stock returns

According to Jogiyanto [6] abnormal return is the difference between the actual return and the normal return. The normal return is the expected return. Abnormal Return is the difference between the actual return that occurs with the expected return. The actual return is the difference in the current price relative to the previous price, while the expected return is the return that must be estimated, using an estimation model. Abnormal returns need to be calculated each date in the window period for each security.

Measurement of abnormal returns based on Jogiyanto's book [6], namely:

$$AR_{it} = R_{it} - E(R_{it}) \tag{5}$$

Information:

AR_{it} : Abnormal return of the i-th security on the t-th event

R_{it} : The true return for the i-th security at the t-th event

$E(R_{it})$:The expected return of the i-th security for the event period [6]

2.4. Abnormal Return

According to Jogiyanto [6] abnormal return is the difference between the actual return and the normal return. The normal return is the expected return. Abnormal Return is the difference between the actual return that occurs with the expected return. The actual return is the difference in the current price relative to the previous price, while the expected return is the return that must be estimated, using an estimation model. Abnormal returns need to be calculated each date in the window period for each security.

Measurement of abnormal returns based on Jogiyanto's book [6], namely:

$$AR_{it} = R_{it} - E(R_{it}) \qquad (6)$$

Information:

AR_{it} : Abnormal return of the i-th security on the t-th event

R_{it} : The true return for the i-th security at the t-th event

$E(R_{it})$:The expected return of the i-th security for the event period

2.5. Stock returns

According to Shah [7] Ramadan is a month of fasting which causes an increase in worship so that it affects stock market practices where the situation is different from other months. Investors allocate more time to carry out religious rituals so that economic activity slows down. Information that investors spend more time praying will force other investors to reduce their stock exchange transactions. This happened due to reduced demand for shares which resulted in a decrease in a number of stock prices before and at the beginning of the entry of the month of Ramadan.

Based on the efficient market hypothesis, the preparation of investors to perform worship before and at the beginning of the month of Ramadan is information that can form a stock price equilibrium that fluctuates in a downward direction. However, as Idul Fitri approaches, consumers do a lot of consumption activities so that the information is used by investors to conduct stock transactions. This is due to an increase in

the company's income due to an increase in consumption before and after Idul Fitri. This increase in consumption provides information that the company will increase its income so as to encourage investors to conduct transactions on the stock market.

2.5. conceptual framework

The month of Ramadan is a month of fasting which causes an increase in worship so that it affects stock market practices where the situation is different from other months. Investors allocate more time to carry out religious rituals so that economic activity slows down. This is the other side of the changes that occur in the month of Ramadan. The reaction will be a more in-depth analysis of how the effects of the month of Ramadan have on changes or reactions in the capital market in Indonesia. The anomaly of changes in stock prices at the time of an event such as the entry of the month of Ramadan is needed to see these changes. So that investors can make decisions that can minimize the risk of loss in transactions on the stock market.

Based on the description that has been explained, it can be described into a conceptual framework of research, so that this research is more focused later as shown below:
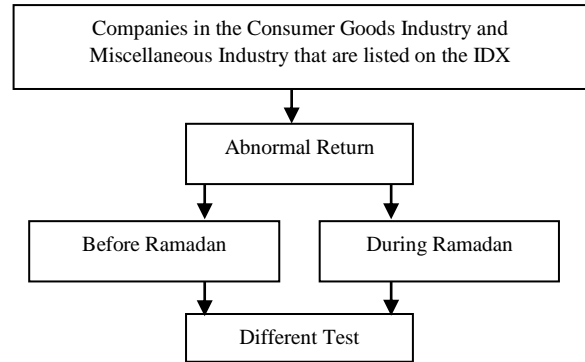
Figure 2 conceptual framework

3. METHOD

3.1 Population and Sample

The population in this study are all companies in the miscellaneous industry (various industries) and consumer goods industry (consumer goods industry) listed on the Indonesia Stock Exchange for the 2020 period as many as 52 and 63 companies so that the total population is 115 companies. In this study, the sampling method was based on a purposive sampling technique which was included in non-probability sampling. The samples in this study were 37 various industrial sectors and 43 consumer goods industrial sectors with a period

of 2018 (21 days), 2019 (21 days) and 2020 (19 days). The total sample is 80 companies.

3.2 Operational Definition

3.2.1 Abnormal Return

Abnormal returns are changes in security prices that occur abnormally as a reaction to an event whose information is published in an observation. Measurement of abnormal returns based on Jogiyanto's book [6], namely:

$$AR_{it} = R_{it} - E(R_{it}) \qquad (7)$$

Information:

AR_{it} : Abnormal return of the i-th security on the t-th event

R_{it} : The true return for the i-th security at the t-th event

$E(R_{it})$: The expected return of the i-th security for the t event period

4. RESULTS

4.1 Research Results

4.1.1 Research Description Analysis

In this study, the events tested were the Ramadan Effect in 2018, 2019 and 2020. The event date used in the study was the first day of the month of Ramadan, namely May 17 2018, May 6 2019, and April 24, 2020.

Table 1. Results of Descriptive Analysis of Average Abnormal Return in 2018

	N	Min	Max	mean	Std. Deviation
t-10	80	-.2439	.2365	-.027325	.0517
t-9	80	-.0825	.2470	-.002518	.0448
t-8	80	-.0968	.3709	.037877	.0591
t-7	80	-.1010	.2604	.010047	.0534
t-6	80	-.1567	.1404	-.012951	.0403
t-5	80	.0159	.0514	.019621	.0049
t-4	80	-.1960	.2089	-.014461	.0493
t-3	80	-.1083	.0613	-.014019	.0245
t-2	80	-.0677	.1105	-.001836	.0300
t-1	80	-.0830	.1897	.014614	.0293
t-0	80	-.0817	.1083	.000006	.0244
t+1	80	-1103	.1647	.005796	.0330
t+2	80	-.1507	.1852	.005812	.0406
t+3	80	-.0891	.0930	.010144	.0244
t+4	80	-.0656	.1080	-.001127	.0258
t+5	80	-.0535	.2401	.003785	.0350
t+6	80	-.0847	.2061	-.0200160	.0397
t+7	80	-.1451	.0760	-.004762	.0261
t+8	80	-.0684	-.0027	-.016050	.0061

| t+9 | 80 | -.1445 | .2557 | .008659 | .0395 |
| t+10 | 80 | -.1418 | .2047 | .008051 | .0471 |

Based on the Table 2, it can be seen that the movement of the Average Abnormal Return before and during the month of Ramadan in 2018 experienced fluctuations which experienced the highest rate of change in the Average Abnormal Return in the observation period of 8 days before Ramadan, namely 0.00488183. The positive abnormal return indicates that investors have the opportunity to get the greatest profit if they make transactions 8 days before the month of Ramadan compared to other days in the observation period because the actual return 8 days before Ramadan is greater than the expected return. The lowest Average Abnormal Return in the observation period 10 days before Ramadan is -0.27325.

Table 2. Results of Descriptive Analysis of Average Abnormal Return in 2019

	N	Min	Max	mean	Std. Deviation
t-10	80	-.6318	.1557	-.018718	.0780
t-9	80	-.2339	.1429	.015069	.0468
t-8	80	-.2109	.1644	-.006930	.0397
t-7	80	-.1722	.0778	-.005703	.0330
t-6	80	-.0304	.2039	.017571	.0295
t-5	80	-.1136	.1623	-.001956	.0297
t-4	80	-.0891	.1791	.005313	.0361
t-3	80	-.0045	-.0032	-.004496	.0002
t-2	80	-.1520	.2097	.004438	.0396
t-1	80	-.1328	1.9217	.035116	.2187
t-0	80	-.1130	.2040	.001978	.0332
t+1	80	-.0899	.1983	.006872	.0351
t+2	80	-.1460	.2234	.010265	.0497
t+3	80	-.1164	.0853	-.000383	.0278
t+4	80	-.1547	.1264	.003608	.0311
t+5	80	-.2350	.0620	.002253	.0362
t+6	80	-.1793	.1628	.009963	.0371
t+7	80	-.1274	.0942	.001607	.0332
t+8	80	-.1988	.3117	.007906	.0507
t+9	80	-.1988	.1728	-.019786	.1188
t+10	80	-.1418	.2047	.008051	.0471

Source: Secondary data processed by myself, 2021

Based on the Table 2, it can be seen that the movement of Average Abnormal Return before and during Ramadan in 2018 experienced fluctuations which experienced the highest rate of change in Average Abnormal Return in the observation period 1 day before Ramadan, which was 0.035116. The positive abnormal return indicates that investors have the opportunity to get the greatest profit if they make transactions on 1 day before the month of Ramadan compared to other days in the observation period because the actual return 1 day before Ramadan is greater than the expected return. The lowest Average Abnormal Return in the 9-day observation period during Ramadan is -0.019786.

Table 3. Results of Descriptive Analysis of Average Abnormal Return in 2020

	N	Min	Max	mean	Std. Deviation
t-10	80	-.0728	.0576	-.006249	.0285
t-9	80	-.0640	.1833	.005231	.0448
t-8	80	-.0861	.1790	-.004405	.0415
t-7	80	-.0526	.2148	.015641	.0453
t-6	80	-.0387	.1313	.016019	.0349
t-5	80	-.0985	.2099	-.010648	.0544
t-4	80	-.0565	.2581	.013083	.0454
st-3	80	-.0538	.2600	.014664	.0534
t-2	80	-.0847	.1735	-.007722	.0418
t-1	80	-.0742	.2969	-.000486	.0434
t-0	80	-.0439	.1774	.017386	.0325
t+1	80	-.0720	.1557	-.003097	.0311
t+2	80	-.0713	.1565	.000951	.0357
t+3	80	-.0757	.2374	-.000408	.0512
t+4	80	-.1024	.1506	-.027873	.0389
t+5	80	-.0442	.1118	.017434	.0261
t+6	80	-.0746	.1207	.000085	.0321
t+7	80	-.0649	.2036	.009582	.0389
t+8	80	-.0669	.1226	-.001548	.0305
t+9	80	-.0781	.0846	-.011747	.0260
t+10	80	-.0563	.2608	.012897	.0500

Source: Secondary data processed by myself, 2021

Based on the Table 3, it can be seen that the movement of the Average Abnormal Return before and during Ramadan in 2018 experienced fluctuations which experienced the highest rate of change in the Average Abnormal Return in the 5-day observation period during Ramadan, which was 0.017434. The positive abnormal return indicates that investors have the opportunity to get the greatest profit if they make transactions on 5 days during the month of Ramadan compared to other days in the observation period because the actual return for 5 days during Ramadan is greater than the expected return. The lowest Average Abnormal Return in the 4-day observation period during Ramadan is -0.027873.

4.1.2 Normality Test

The results of the normality test in this study used the One Sample Kolmogorov Smirnov test with the criteria that if the asymp sig value <0.05 then the data was normally distributed. If the data is normally distributed, then the hypothesis testing uses the Paired Sample T-Test. However, if the data is not normally distributed, the test is carried out using the Wilcoxon signed rank test. The results of the normality test in this study are:

Table 4 Data Normality Results

Period	Asymp Sig Nilai Value	Results
5 Days Before Ramadan 2018	0.000	Abnormal
5 Days of Ramadan 2018	0.000	Abnormal
10 Days Before Ramadan 2018	0.000	Abnormal
10 Days of Ramadan 2018	0.000	Abnormal
5 Days Before Ramadan 2019	0.000	Abnormal
5 Days of Ramadan 2019	0.000	Abnormal
10 Days Before Ramadan 2019	0.000	Abnormal
10 Days of Ramadan 2019	0.000	Abnormal
5 Days Before Ramadan 2020	0.000	Abnormal
5 Days of Ramadan 2020	0.000	Abnormal
10 Days Before Ramadan 2020	0.000	Abnormal
10 Days of Ramadan 2020	0.000	Abnormal

Based on the Table 4, it can be explained that none of the data is normally distributed because the value of asymp sig < 0.05 so that parametric statistical testing using Paired Sample T-Test cannot be carried out. So in this case the hypothesis testing is continued with non-parametric statistical test tools using the Wilcoxon Signed Rank Test.

4.1.3 Wilcoxon One Sample Test

The first objective of this study is to analyze whether there are abnormal returns on the day before the month of Ramadan and during the month of Ramadan. The abnormal return test uses the One Sample Wilcoxon Signed Rank Test because the data is not normally distributed. The results of the One Sample Wilcoxon Signed Rank Test on abnormal returns on the day before Ramadan and during Ramadan in 2018, 2019 and 2020 in this study are:

Table 5 Wilcoxon Signed Rank Test One Sample Test Results for Abnormal Returns Before and After Ramadan

Data	2018		2019		2020	
	Sig	Conclusion	Sig	Conclusion	Sig	Conclusion
t-10	0.00	accepted	0.00	Accepted	0.05	Rejected
t-9	0.00	Accepted	0.00	Accepted	0.37	Rejected
t-8	0.00	Accepted	0.00	Accepted	0.01	Accepted
t-7	0.20	Rejected	0.11	Rejected	0.00	Accepted
t-6	0.00	Accepted	0.00	Accepted	0.00	Accepted
t-5	0.00	Accepted	0.00	Accepted	0.00	Accepted
t-4	0.00	Accepted	0.55	Rejected	0.00	Accepted
t-3	0.00	Accepted	0.00	Accepted	0.01	Accepted
t-2	0.07	Rejected	0.00	Accepted	0.00	Accepted
t-1	0.00	Accepted	0.04	Accepted	0.03	Accepted
To	0.34	Rejected	0.00	Accepted	0.00	Accepted
t1	0.01	Accepted	0.15	Rejected	0.00	Accepted
t2	0.15	Rejected	0.00	Accepted	0.32	Rejected
t3	0.00	Accepted	0.00	Accepted	0.04	Accepted
t4	0.14	Rejected	0.25	Rejected	0.00	Accepted
t5	0.91	Rejected	0.01	Accepted	0.00	Accepted
t6	0.00	Accepted	0.00	Accepted	0.11	Rejected
t7	0.01	Accepted	0.00	Accepted	0.01	Accepted
t8	0.00	Accepted	0.30	Rejected	0.59	Rejected
t9	0.00	Accepted	0.00	Accepted	0.00	Accepted
t10	0.01	Accepted	0.00	Accepted	0.01	Accepted

Source: Secondary data processed by myself, 2021
Note: To   : H1 Ramadan
*   t-1 to t-10   : the day before the month of Ramadan*
*   t1 to t10   : day after month Ramadan*
*   Sig   : 0.05*

From Table 5, it can be seen that there are several days where there are significant abnormal returns around the month of Ramadan and some days there are no significant abnormal returns in the month of Ramadan. In 2018 there were significant Abnormal Returns before Ramadan, namely t-7, t-2 and significant Abnormal Returns during Ramadan, namely t2, t4 and t5. In 2019 there were significant abnormal returns

before Ramadan, namely t-7, t-4 and significant abnormal returns during Ramadan, namely t1, t4 and t8. In 2020 there was a significant abnormal return before the month of Ramadan, namely t-9 and a significant abnormal return during the month of Ramadan, namely t2, t6 and t8.

4.1.4 Wilcoxon Signed Rank Test

The purpose of this study was to see the difference in abnormal returns before and during the month of Ramadan by using the Wilcoxon Signed Rank Test. The basis for making the decision to accept or reject Ho in the Wilcoxon signed rank test is if the probability (Asymp.Sig) < 0.05 then Ho is rejected and Ha is accepted. If the probability (Asymp.Sig) > 0.05 then Ho is accepted and Ha is rejected. The results of hypothesis testing in this study are:

Table 6 Hypothesis Test Results Before and During Ramadan

Period	Year	*Asymp Sig*	Results
5 Days Before 5 Days When	2018	0.021	Rejected
10 Days Before 10 Days When		0.744	Accepted
5 Days Before 5 Days When	2019	0.026	Rejected
10 Days Before 10 Days When		0.019	Rejected
5 Days Before 5 Days When	2020	0.163	Accepted
10 Days Before 10 Days When		0.012	Rejected

Source: Secondary data processed by myself, 2021

Based on the Table 6, an explanation of the test results in the period before and during the entry of the month of Ramadan is that there are significant differences in the period before and during the month of Ramadan in 2018, 2019, and 2020, namely in the 5 day period during and before Ramadan in 2018, period 5 and 10 days before and during the month of Ramadan in 2019, as well as a period of 10 days before and during the month of Ramadan in 2020. It can be said that the market is inefficient in a weak form.

5. DISCUSSION

The hypothesis in this study is that there are differences in abnormal returns in the period before and during the month of Ramadan. This study is divided into two event windows, namely 5 days and 10 days with the period 2018, 2019, and 2020. The results of the study conclude that there are differences in abnormal returns in the period before and during Ramadan in 2018, 2019, and 2020 in the 5 day period. during and before Ramadan in 2018, the period of 5 and 10 days before and during the month of Ramadan in 2019, as well as a period of 10 days before and during the month of Ramadan in 2020. These results support the research

hypothesis and also support the results of previous research conducted by [3] & [1] where the research concludes that there are differences in abnormal stock returns when there is an event that can change the pattern of investor transactions. The results of this study do not support the results of research conducted by [8] which examined the effects of Ramadan on the Karachi Stock Exchange (KSE) for the period 1998-2004. The results found that the average return in the month of Ramadan was lower and the average return was higher in the months of Shawwal and Ziad (after Ramadan). The results also do not support the research conducted by Shah [7]) which states that the return on the Karachi Stock Exchange (KSE) does not show a significant difference during Ramadan compared to months outside of Ramadan. The results of this study do not support the results of research conducted by Mustafa [8] which examined the effects of Ramadan on the Karachi Stock Exchange (KSE) for the period 1998-2004. The results found that the average return in the month of Ramadan was lower and the average return was higher in the months of Shawwal and Ziad (after Ramadan). The results also do not support the research conducted by Shah [7] which states that the return on the Karachi Stock Exchange (KSE) does not show a significant difference during Ramadan compared to months outside of Ramadan. The results of this study do not support the results of research conducted by [8] which examined the effects of Ramadan on the Karachi Stock Exchange (KSE) for the period 1998-2004. The results found that the average return in the month of Ramadan was lower and the average return was higher in the months of Shawwal and Ziad (after Ramadan). The results also do not support the research conducted by Shah [7] which states that the return on the Karachi Stock Exchange (KSE) does not show a significant difference during Ramadan compared to months outside of Ramadan. The results found that the average return in the month of Ramadan was lower and the average return was higher in the months of Shawwal and Ziad (after Ramadan). The results also do not support the research conducted by Shah [7] which states that the return on the Karachi Stock Exchange (KSE) does not show a significant difference during Ramadan compared to months outside of Ramadan. The results found that the average return in the month of Ramadan was lower and the average return was higher in the months of Shawwal and Ziad (after Ramadan). The results also do not support the research conducted by Shah [7] which states that the return on the Karachi Stock Exchange (KSE) does not show a significant difference during Ramadan compared to months outside of Ramadan.

There is a difference in abnormal returns before and during the Ramadhan Effect event in the miscellaneous industry and consumer goods industry sectors that are not in accordance with the efficient market hypothesis, which states that no one in securities can earn abnormal

returns. According to Mustakini [9] states that if an announcement published contains information in it, it is expected that a market will respond and be affected by the announcement at the time the announcement is published. The market reaction to the announcement is expressed by the change in the related stock price as measured by abnormal returns. The results of this study also do not support the research conducted by Anwar [10] that there is no difference in abnormal returns on the Ramadhan Effect event in the majority of sectors on the Indonesia Stock Exchang. This study also does not support the research conducted by Rusmayanti [11] that there is no significant difference between returns in the holy month of Ramadan and returns in other months.

According to Fama [12] a market is said to be efficient if no one, both individual investors and institutional investors, will be able to obtain abnormal returns. The results show that there are differences in abnormal returns before and during Ramadan which tend to increase with a positive sig value, meaning that the market in Indonesia is inefficient in a weak form because investors can still earn abnormal profits with the Ramadhan effect. The results of this study support the research conducted by Semuel et al. [13] that based on the run test and autocorrelation test, all samples used did not follow the random walk pattern, thus this study states that the Indonesian Capital Market is inefficient.

Based on the Average Abnormal Return in the three observation years, 2018, 2019 and 2020, there was an increase on H-1 Ramadan, a decrease on the first day of the month of Ramadan and decreased and increased again during the month of Ramadan, this was due to investors holding back from transactions during the month of Ramadan. the month of Ramadan because it focuses on worship and is used by other investors to make transactions so that they get abnormal profits.

6. CONCLUSIONS AND SUGGESTIONS

6.1 Conclusion

The conclusions of abnormal returns are restated, namely:

1. The results of the One Sample Wilcoxon Signed Rank Test that have been carried out on Abnormal Returns in 2018 there are significant Abnormal Returns before Ramadan, namely t-7, t-2 and significant Abnormal Returns during Ramadan, namely t2, t4 and t5. In 2019 there were significant Abnormal Returns before Ramadan, namely t-7, t-4 and significant Abnormal Returns during Ramadan, namely t1, t4 and t8. In 2020 there was a significant Abnormal Return before Ramadan, namely t-9 and a significant Abnormal Return during Ramadan, namely t2, t6 and t8. before Ramadan and during Ramadan.

2. The results of the One Sample Wilcoxon Signed Rank Test that have been carried out on Abnormal Returns in 2018 show that there are significant differences in the period before and during Ramadan in 2018, 2019, and 2020, namely in the 5 day period during and before Ramadan in 2018, the period 5 and 10 days before and during the month of Ramadan in 2019, as well as a period of 10 days before and during the month of Ramadan in 2020. It can be said that the market is not efficient in its weak form.

6.2 Suggestions

For investors, before making investment decisions, they should be able to analyze the Ramadan Effect. Investors must be careful in buying and selling shares within a period of 5 to 10 days before and during the month of Ramadan. Companies should pay more attention to changes in stock prices in the period 5 to 10 days before and during the month of Ramadan. Calculation of Abnormal Returns can provide additional information and insight regarding the benefits that can be obtained and be able to analyze changes in market conditions as a result of the Ramadan Effect. Then, pay attention to various financial and non-financial information, including other non-economic events that can affect the rise and fall of stock prices. But keep in mind that not all information is relevant to consider

REFERENCES

[1] Milošević, Marko. 2019. The Influence Of HolidayEffect On The Rate Of Return Of Emerging Markets: A Case Study Of Slovenia, Croatia and Hungary. Economic Research-Ekonomska Istraživanja. ISSN: 1331-677X

[2] Andrikopoulos, Panagiotis. 2020. Feedback Trading And The Ramadan Effect In Frontier Markets. Research in International Business and Finance. Elsevier.

[3] Bash, Ahmad. 2020. International Evidence of COVID-19 and Stock Market Returns: An Event Study Analysis. International Journal of Economics and Financial Issues. ISSN: 2146-4138

[4] Sonjaya, Azwar Ramadhana. 2016. The Ramadan Effect: Illusion or Reality?. Arab Economics And Business Journal. ScienceDirect. Department of Management. Faculty of Economics and Business. Jakarta: University of Indonesia. Volume 1. Issue 1.

[5] Husnan, Suad. 2020. "Basics of Portfolio Theory and Securities Analysis". Issue 5. Second Printing. Yogyakarta: UPP STIM YKPN.

[6] Jogiyanto, H. 2018. "Event Study Tests Capital Market Reaction Due to an Event". Yogyakarta: BPFE.

[7] Shah, Atiq UR Rehman and Syed Nisar Ahmed. 2014. The Ramadan Effect on Stock Market. European Academic Research. Volume 01. Issue 11. ISSN 2286-4822.

[8] Mustafa. 2017. "Financial Management". Yogyakarta : CV. Andi

[9] Mustakini, JH 2010. "Analysis and Design of Information Systems". Andi Offset

[10] Anwar, S. 2015. The impact of Ramadan on stock price returns in all sectors on the Indonesia Stock Exchange for the period 2011-2015. Surakarta: Islamic State University of Surakarta. C. Baier, JP. Katoen, Principles of Model Examination, MIT Press, 2008.

[11] Rusmayanti, A., Yusniar, MW, & Yuniar, A. 2016. The Effect of Ramadan on Stock Market Returns on the Indonesia Stock Exchange (1425 H-1434 H). Journal of Management Insights. Volume 04 Issue 01.

[12] Fama, EF 1970. Efficient market: A review of theory and empirical work. Journal of Finance, 393-417.

[13] Semuel, Hatane, Ronni, BS, and Budihargono, K. 2017. Analysis of Weak Form Capital Market Efficiency Through Evaluation of Stock Price Movements on the Indonesia Stock Exchange. Petra Business & Management Review. Volume.3 Number 2.