InCAF PROCEEDING OF INTERNATIONAL CONFERENCE ON ACCOUNTING AND FINANCE

Volume 2, 2024, PP: 51-62

# Analysis of the January effect phenomenon in companies included in the LQ45 Stock Index on the Indonesia Stock Exchange for the 2018-2021 period

**Ebi Evianti*, Natalia Ratnaningrum, Arista Natia Afriany**
Management Study Program, Faculty of Business, PGRI Yogyakarta University
* Corensponding author: ebi.evianti@gmail.com

**Abstract**

This study aims to determine whether there is a January effect phenomenon as seen from the difference in actual return and abnormal return of shares of companies included in the LQ45 index on the Indonesia Stock Exchange for the 2018-2021 period. The sample in this study were 28 companies obtained through purposive sampling method. This research data analysis uses the Paired Sample t-test and Wilcoxon Sign Rank Test with the Kolmogorov Smirnov normality test. Based on the analysis conducted, it is stated that there is not enough evidence where there is a difference in actual return and abnormal return of stocks in January with eleven other months, even from these eleven months only three months there is a significant difference in actual return where January is greater than February, March, and September. As for the abnormal return test results, January is greater than February and March.

Keywords: January effect, actual return, abnormal return, LQ45 index, covid-19.

## INTRODUCTION

The increase in the number of investors in the capital market, which reached 9,975,261 in October 2022, is one of the positive signals that play a role in driving the country's economy. The Indonesian Central Securities Depository (KSEI) recorded investor growth and an increase in investment transactions in the capital market which increased sharply until October 2022 by 33.19%. Meanwhile, the JCI closure in 2018 and 2020 experienced a decline due to negative catalysts both from within and outside the country. However, in 2022 the JCI value closed at 6,850.62. Volatile stock prices make investors have to consider the investment to be chosen by doing the right analysis, so as to get good stocks and the right time when investing. Pratiwi et al. (2018) stated that choosing the right time to invest and finding information about the stock phenomenon that is happening is important in investing. In addition to studying the available information, in investing investors must understand anomalies that can occur in the capital market.

Andreas & Daswan (2011) stated that deviations from the efficient market concept occur due to seasonal anomalies, one of the seasonal anomalies that can occur is the January effect phenomenon. The January effect was first introduced by an investment banker on one of the United States stock exchanges, Sidney B. Wachtel in 1942 (Zacks, 2012). Sidney B. Wachtel's discovery of the January effect was published in the Journal of Business of the University of Chicago under the title "Certain Observations on Seasonal Movements in Stock Price". Tandelilin (2017) states that the January effect is a phenomenon characterized by high returns in January which can occur due to the tax-selling hypothesis. Where many investors sell their securities that are predicted to experience losses before the end of the year and at the beginning of the year will buy the same securities. This behavior causes a tax loss for investors. This action will cause a decrease in prices at the end of December and an increase in returns in January which makes the return level at the beginning of the year increase.

Investors in investing have the aim of maximizing the return obtained from the investment made. Actual return is the actual profit that will be received by investors which is calculated through the

company's past data (Ratrini & Suartana, 2021). Actual return can be used to test the existence of the January effect, where if there is a significant difference between the return in January and the other eleven months, it indicates the occurrence of the January effect anomaly. In addition, abnormal returns can also be used to test the existence of the January effect anomaly in the capital market, if there is a difference in abnormal returns between January and the other eleven months, it can indicate that investors are reacting to new incoming information, thus signaling the existence of the January effect phenomenon.

This research refers to research conducted by Pratiwi et al., (2018) with the results of research on the difference in stock returns of BUMN companies in January and months other than January on the Indonesia Stock Exchange which indicates the occurrence of the January effect anomaly. Research conducted by Addinpujoartanto (2019) states that there is a January Effect phenomenon on the Indonesia Stock Exchange, but the January Effect phenomenon only occurs in large company stocks during the study period. Meanwhile, research conducted by Lutfia et al., (2021) explained the existence of the January effect phenomenon which is indicated by the difference in abnormal returns in January compared to other months on the Kompas100 stock index on the Indonesia Stock Exchange for the period December 2017 - January 2020. Therefore, this study aims to determine whether there is a January effect phenomenon as seen from the difference in actual return and abnormal return of shares of companies included in the LQ45 index on the Indonesia Stock Exchange for the period 2018-2021. The difference between this research and previous research is that this study uses the shares of companies included in the LQ45 index in the 2018-2021 period. In addition, this study also uses the Paired Sample t-test and Wilcoxon Sign Rank Test methods for hypothesis testing.

## LITERATUR REVIEW

### Behavioral Finance Theory

Shefrin (2000) behavioral finance is a study that examines the influence of psychology on the financial behavior of stock players or other financial practitioners. According to Nofsinger (2018) behavioral finance is a study of the behavior or actions taken by a person in determining finance, specifically examining the influence of psychology on corporate financial decisions and financial markets. Ricciardi & Simon (2000) stated that behavioral finance is a discipline where there are various intensive interactions between one discipline and other disciplines that are continuously integrated so that the discussion cannot be separated.

### Efficient Capital Market

Tandelilin (2017) defines the capital market as a meeting place between parties who have excess funds and parties who need funds by trading securities that generally have a lifespan of more than one year, such as stocks, bonds and mutual funds. The capital market can be said to be efficient if the prices of all traded securities reflect all available information, both past information and current information as well as information that is a rational opinion or opinion circulating in the market so that it can affect price changes. According to Fama (1970) efficient market hypothesis is a situation where the price of securities traded in the capital market has reflected the information available as a whole. In the concept of efficient market hypothesis, when the market reacts quickly and appropriately to reach a new equilibrium price that reflects all available information, then market conditions can be said to be efficient. There are three forms of efficient markets including weak form, semistrong form and strong form.

### January Effect

Hartono (2017) explains that market anomalies are techniques or strategies that contradict or deviate from the concept of efficient markets. One of the anomalies that usually occurs in the capital market is the January Effect anomaly. According to Zacks (2012) January effect is a phenomenon of rising stock prices caused by the activities of the majority of investors who buy stocks in January. The increase in stock prices in January is related to several factors, namely the sale of shares at low prices at the end of the year with the aim of reducing taxes, realizing capital gains, the effect of Window Dressing portfolios, the demand for cash that exceeds the average in mid-December for Christmas, the habit of investors

who sell their shares for vacation and buy them back in January and the belief that the new year will be better than the previous year. Andreas & Daswan (2011) stated that the January effect or mounth of the year effect is an anomaly that provides a higher level of stock returns in early January. This happens because investors tend to sell shares in December with the aim of reducing taxes or realizing gains, so that in January there is an increase in stock purchases.

**Actual Return**

Tandelilin ( 2017) states that actual return is the actual profit that will be received by investors which is calculated through the company's past data. Actual return can be used to measure company performance and can be used to calculate abnormal return. Meanwhile, abnormal return is the difference between actual return and expected return (Hartono, 2017).

**Hypothesis Development**

Andreas & Daswan (2011) stated that the January effect or mounth of the year effect is an anomaly that provides a higher level of stock returns in early January. So that the higher the return in January, it indicates that there is a January effect phenomenon and the high level of return received will cause investors to receive abnormal returns. Actual return is the actual profit that will be received by investors which is calculated through the company's past data. Meanwhile, abnormal return is the difference between the actual return and the expected return (Hartono, 2017). This is supported by research conducted by Pratiwi et al., (2018) which states that there are differences in stock returns of BUMN companies in January with months other than January on the Indonesia Stock Exchange which indicates the occurrence of the January effect anomaly. Addinpujoartanto (2019) also stated that the January Effect occurred on the Indonesia Stock Exchange in large company stocks during the study period. Research conducted by Lutfia et al., (2021) stated that there is a January effect phenomenon as indicated by the difference in abnormal returns in January compared to other months on the Kompas100 stock index on the Indonesia Stock Exchange for the period December 2017 - January 2020. Research conducted by Ratrini & Suartana (2021) also stated that there were significant differences in abnormal returns in January and months other than January, so that the January effect statistically occurred in Indonesia during the 2017-2019 period. This means that the difference in abnormal returns between January and the other eleven months may indicate that investors react to new incoming information, thus signaling the existence of the January effect phenomenon. Based on the description above, the hypotheses in this study are:
H1: There are differences in actual stock returns in January with eleven other months in companies included in the LQ45 stock index on the Indonesia Stock Exchange.

## RESEARCH METHODS

**Unit Analysis**

Population and Sample The population in this study are all companies whose shares are listed on the LQ45 index in the 2018- 2021 period. This research is a type of quantitative research using secondary data obtained from https://finance.yahoo.com. The research object used in this study is the existence of the January effect phenomenon, namely by looking at the difference in actual return and abnormal return in January with eleven other months on the Indonesia Stock Exchange. The sampling technique used purposive sampling method, resulting in a sample of 28 companies. With the following criteria:

**Table 1.** List of Question for Interview

| No | Population | Total |
|---|---|---|
| 1 | Companies listed in the LQ45 Index | 45 |
| 2 | Companies that are not regularly included in the LQ45 Index | (17) |
| Sampel | | 28 |
| Total sample (n x research period) (28 x 4) | | 112 |

**Operational Definition**

1. **Actual Return**

   Actual return is the actual profit that will be received by investors which is calculated through the company's past data. Actual return itself can be used to measure company performance and can be used as a basis for determining excepted returns and risks that may occur in the future (Hartono, 2017). The formula for actual return is:

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

2. **Abnormal Return**

   Abnormal return is the difference between the actual return and the expected return(Hartono, 2017). To determine the abnormal return can use the formula:

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

**Data Analysis Technique**

Data analysis in this study uses quantitative research, where analysis and hypothesis testing will be analyzed using the Microsoft Excel 2016 program and SPSS 25 software.

1. **Data Normality Test**

   The data normality test is used to determine whether the data is normally distributed or not, the normality test in this study uses Kolmogorov Smirnov. Kolmogorov Smirnov is an analytical tool to detect data normality (Indriyani, 2020). The basis for decision making to determine data normality is if Asymp Sig < 5% then the data is not normally distributed and if Asymp Sig> 5% then the data is normally distributed.

2. **Paired Sample t-test**

   Paired Sample t-test is a parametric test analysis tool used to see if there is a difference between the actual return and abnormal return in January and 11 other months. The basis for taking this test is if the Asymp.Sig value < 5% then H0 is rejected and Ha is accepted and if the Asymp.Sig value> 5% then H0 is accepted and Ha is rejected.

3. **Wilcoxon Sign Rank Test**

   The Wilcoxon Sign Rank Test is a non-parametric test analysis tool used to see if there is a difference between actual return and abnormal return in January and 11 other months. The basis for taking this test is if the Asymp Sig value < 5% then H0 is rejected and Ha is accepted and if the Asymp Sig value> 5% then H0 is accepted and Ha is rejected.

## RESULTS AND DISCUSSIONS

**Table 2** Average Actual Return

| Bulan | 2018 | 2019 | 2020 | 2021 | Rata-Rata |
|---|---|---|---|---|---|
| Januari | 0,0988 | 0,0951 | -0,0811 | -0,0701 | 0,0107 |
| Februari | -0,0118 | -0,0192 | -0,1094 | 0,0355 | -0,0262 |
| Maret | -0,1021 | 0,0105 | -0,2295 | -0,0506 | -0,0929 |
| April | -0,0379 | 0,0201 | 0,0666 | -0,0148 | 0,0085 |
| Mei | 0,0102 | -0,0567 | 0,0259 | -0,0233 | -0,0110 |
| Juni | -0,0677 | 0,0380 | 0,0903 | -0,0585 | 0,0005 |
| Juli | 0,0366 | 0,0092 | 0,0508 | -0,0265 | 0,0175 |
| Agustus | 0,0181 | -0,0183 | 0,0449 | 0,0418 | 0,0216 |
| September | -0,0189 | -0,0420 | -0,1085 | 0,0689 | -0,0251 |
| Oktober | -0,0519 | 0,0111 | 0,0805 | 0,0770 | 0,0292 |
| November | 0,0686 | -0,0609 | 0,1531 | -0,0303 | 0,0326 |
| Desember | 0,0208 | 0,0789 | 0,1010 | -0,0012 | 0,0499 |
| **Tertinggi** | **0,0988** | **0,0951** | **0,1531** | **0,0770** | **0,0499** |
| **Terendah** | **-0,1021** | **-0,0609** | **-0,2295** | **-0,0701** | **-0,0929** |
| **Rata-Rata** | **-0,0031** | **0,0055** | **0,0071** | **-0,0043** | **0,0013** |

Source: Data processed (2023)

Based on table 2, the highest average actual return in 2018 and 2019 was in January amounting to 0.0988 and 0.0951. While the lowest actual return in 2018 and 2019 occurred in March of -0.1021 and November of -0.0609. In 2020, the highest actual return occurred in November of 0.1531 and the lowest in March of -0.2295. In 2021, the highest actual return occurred in October of 0.0770 and the lowest was in January of -0.0701. Meanwhile, the highest average actual return value from 2018 to 2021 occurred in December amounting to 0.0499 and the average actual return value from 2018 to 2021 occurred in March amounting to -0.0929. Based on the value of the table above, it can be concluded that the month of January with the highest actual return only occurred in 2018 and 2019, and in 2021 the lowest actual return occurred in January.

**Table 3** Average Abnormal Return

| Bulan | 2018 | 2019 | 2020 | 2021 | Rata-Rata |
|---|---|---|---|---|---|
| Januari | 0,0594 | 0,0404 | -0,0240 | -0,0505 | 0,0063 |
| Februari | -0,0106 | -0,0055 | -0,0273 | -0,0293 | -0,0182 |
| Maret | -0,0402 | 0,0066 | -0,0619 | -0,0095 | -0,0263 |
| April | -0,0065 | 0,0222 | 0,0275 | -0,0165 | 0,0067 |
| Mei | 0,0120 | -0,0185 | 0,0180 | -0,0153 | -0,0010 |
| Juni | -0,0369 | 0,0139 | 0,0583 | -0,0649 | -0,0074 |
| Juli | 0,0129 | 0,0042 | 0,0010 | -0,0406 | -0,0056 |
| Agustus | 0,0043 | -0,0086 | 0,0276 | 0,0286 | 0,0130 |
| September | -0,0119 | -0,0168 | -0,0381 | 0,0467 | -0,0050 |
| Oktober | -0,0277 | 0,0015 | 0,0275 | 0,0286 | 0,0075 |
| November | 0,0301 | -0,0261 | 0,0587 | -0,0216 | 0,0103 |
| Desember | -0,0021 | 0,0311 | 0,0357 | -0,0085 | 0,0140 |
| **Tertinggi** | **0,0594** | **0,0404** | **0,0587** | **0,0467** | **0,0140** |
| **Terendah** | **-0,0402** | **-0,0261** | **-0,0619** | **-0,0649** | **-0,0263** |
| **Rata-Rata** | **-0,0014** | **0,0037** | **0,0086** | **-0,0127** | **-0,0005** |

Source: Data processed (2023)

Based on table 3, the highest average abnormal return in 2018 and 2019 was in January amounting to 0.0594 and 0.0404. While the lowest abnormal return in 2018 and 2019 occurred in March of -0.0402 and November of -0.0261. In 2020, the highest abnormal return occurred in November amounting to 0.0587 and the lowest in March amounting to -0.0619. In 2021, the highest abnormal return occurred in September amounting to 0.0467 and the lowest was in June amounting to -0.0649. Meanwhile, the highest average abnormal return value from 2018 to 2021 occurred in December amounting to 0.0140 and the average abnormal return value from 2018 to 2021 occurred in March amounting to -0.0263. Based on the value of the table above, it can be concluded that the month of January with the highest abnormal return only occurred in 2018 and 2019.

## Normality Test

**Table 4** Normality Test Results of Actual Return

| One-Sample Kolmogorov-Smirnov Test | | | |
|---|---|---|---|
| | N | Test Statistic | Asymp. Sig. (2-tailed) |
| RR_Januari | 112 | .133 | .000[c] |
| RR_Februari | 112 | .102 | .006[c] |
| RR_Maret | 112 | .120 | .000[c] |
| RR_April | 112 | .077 | .109[c] |
| RR_Mei | 112 | .103 | .005[c] |
| RR_Juni | 112 | .093 | .019[c] |
| RR_Juli | 112 | .059 | .200[c.d] |
| RR_Agustus | 112 | .077 | .107[c] |
| RR_September | 112 | .105 | .004[c] |
| RR_Oktober | 112 | .091 | .024[c] |
| RR_November | 112 | .148 | .000[c] |
| RR_Desember | 112 | .130 | .000[c] |

Source: Data processed by SPSS 25

Based on the normality test in table 4 shows that the Asymp. Sig ((2-tailed) in January, March, September, November and December is smaller than the significance value of 0.05, namely 0.000, 0.000, 0.004, 0.000 and 0.000 which indicates that the data is not normally distributed. Whereas for the months of February, April, May, June, July August and October have a significance value of more than 0.05, namely 0.006, 0.109, 0.005, 0.019, 0.200, 0.107 and 0.024 which indicates normally distributed data. So for the actual return hypothesis test, you can use the parametric Paired Sample t-test and the non-parametric Wilcoxon Sign Rank Test .

**Table 5** Abnormal Return Normality Test Results

| One-Sample Kolmogorov-Smirnov Test | | | |
|---|---|---|---|
| | N | Test Statistic | Asymp. Sig. (2-tailed) |
| AR_Januari | 112 | .129 | .000[c] |
| AR_Februari | 112 | .053 | .200[c.d] |
| AR_Maret | 112 | .106 | .003[c] |
| AR_April | 112 | .056 | .200[c.d] |
| AR_Mei | 112 | .100 | .008[c] |
| AR_Juni | 112 | .092 | .021[c] |
| AR_Juli | 112 | .055 | .200[c.d] |
| AR_Agustus | 112 | .102 | .006[c] |
| AR_September | 112 | .116 | .001[c] |
| AR_Oktober | 112 | .101 | .007[c] |
| AR_November | 112 | .129 | .000[c] |
| AR_Desember | 112 | .130 | .000[c] |

Source: Data processed by SPSS 25

Based on the normality test in table 5 shows that the Asymp. Sig ((2-tailed) in January, March, May, June, August, September, October, November and December is smaller than the significance value of 0.05, namely 0.000, 0.003, 0.008, 0.021, 0.006, 0.001, 0.007, 0.000 and 0.000 which indicates data is not normally distributed. Whereas for February, April and July have a significance value greater than 0.05, namely 0.200, 0.200 and 0.200 which indicates normally distributed data. So for the abnormal return hypothesis test, you can use the parametric Paired Sample t-test and the non-parametric Wilcoxon Sign Rank Test.

**Paired Sample t-test**

**Table 6** Paired Sample t-test Results Actual Return

| Paired Sample t-test | | | | |
|---|---|---|---|---|
| | | Mean | t | Sig. (2-tailed) |
| Pair 1 | RR_Januari - RR_Februari | 369.027 | 2.556 | .012 |
| Pair 2 | RR_Januari - RR_Maret | 1035.839 | 6.016 | .000 |
| Pair 3 | RR_Januari - RR_April | 21.929 | .136 | .892 |
| Pair 4 | RR_Januari - RR_Mei | 216.643 | 1.397 | .165 |
| Pair 5 | RR_Januari - RR_Juni | 101.652 | .549 | .584 |
| Pair 6 | RR_Januari - RR_Juli | -68.607 | -.451 | .653 |
| Pair 7 | RR_Januari - RR_Agustus | -109.482 | -.648 | .518 |
| Pair 8 | RR_Januari - RR_September | 357.875 | 2.069 | .041 |
| Pair 9 | RR_Januari - RR_Oktober | -185.063 | -.959 | .339 |
| Pair 10 | RR_Januari - RR_November | -219.482 | -1.055 | .294 |
| Pair 11 | RR_Januari - RR_Desember | -392.054 | -2.413 | .017 |

Source: Data processed by SPSS 25

Based on the Paired Sample t-test in table 6 shows that:

1. Based on pair 1 between January RR and February RR, the t value is 2.556 with a significance value smaller than 0.05 or 0.012 < 0.05 and the mean paired differences is 369.027. This value show the diference between the average actual return in January is greater than the actual return in February.
2. Based on pair 2 between January RR and March RR, the t value is 6.016 with a significance value smaller than 0.05 or 0.000 <0.05 and the mean paired differences is 1035.839. This value shows the difference between the average actual return in January is greater than the actual return in March.
3. Based on pair 3 between January RR and April RR, the t value is 0.136 with a significance value greater than 0.05 or 0.892> 0.05 and the mean paired differences is 21,929. This value shows the difference between the average actual return in January is greater than the actual return in April.
4. Based on pair 4 between January RR and May RR has a t value of 1.397 with a significance value greater than 0.05 or 0.165> 0.05 and the mean paired differences is 216.643. This value shows the difference between the average actual return in January is greater than the actual return in May.
5. Based on pair 5 between January RR and June RR, the t value is 0.549 with a significance value greater than 0.05 or 0.584> 0.05 and the mean paired differences is 101.652. This value shows the difference between the average actual return in January is greater than the actual return in June.
6. Based on pair 6 between January RR and July RR, the t value is -0.451 with a significance value greater than 0.05 or 0.653> 0.05 and the mean paired differences is -68.607. This value shows the difference between the average actual return in January is smaller than the actual return in July.
7. Based on pair 7 between January RR and August RR, the t value is -0.648 with a significance value greater than 0.05 or 0.518> 0.05 and the mean paired differences is -109.482. This value shows the difference between the average actual return in January is smaller than the actual return in August.
8. Based on pair 8 between January RR and September RR, the t value is 2.069 with a significance value smaller than 0.05 or 0.041 <0.05 and the mean paired differences is 357.875. This value shows the difference between the average actual return in January is greater than the actual return in September.
9. Based on pair 9 between January RR and October RR, the t value is -0.959 with a significance value greater than 0.05 or 0.339> 0.05 and the mean paired differences is -185.063. This value shows the difference between the average actual return in January is smaller than the actual return in October.
10. Based on pair 10 between January RR and November RR, the t value is -1.055 with a significance value greater than 0.05 or 0.294> 0.05 and the mean paired differences is -219.482. This value shows the difference between the average actual return in January is smaller than the actual return in November.
11. Based on pair 11 between January RR and December RR has a t value of -2.413 with a significance value smaller than 0.05 or 0.017 <0.05 and the mean paired differences is -392.054. This value shows the difference between the average actual return in January is smaller than the actual return in December.

Based on the results of hypothesis testing in this study using the Paired Sample t-test on the actual return value, it shows that of the eleven months only two months have significant differences where the actual return in January> February, March and September.

**Table 7** Paired Sample t-test Results Abnormal Return

| Paired Sample t-test | | | | |
|---|---|---|---|---|
| | | Mean | t | Sig. (2-tailed) |
| Pair 1 | RR_Januari - RR_Februari | 244.866 | 2.011 | .047 |
| Pair 2 | RR_Januari - RR_Maret | 325.848 | 2.028 | .045 |
| Pair 3 | RR_Januari - RR_April | -3.268 | -.025 | .980 |
| Pair 4 | RR_Januari - RR_Mei | 72.768 | .564 | .574 |
| Pair 5 | RR_Januari - RR_Juni | 137.161 | .878 | .382 |
| Pair 6 | RR_Januari - RR_Juli | 119.446 | .912 | .364 |
| Pair 7 | RR_Januari - RR_Agustus | -66.438 | -.458 | .648 |
| Pair 8 | RR_Januari - RR_September | 113.759 | .748 | .456 |
| Pair 9 | RR_Januari - RR_Oktober | -11.518 | -.074 | .941 |
| Pair 10 | RR_Januari - RR_November | -39.348 | -.234 | .815 |
| Pair 11 | RR_Januari - RR_Desember | -77.205 | -.548 | .585 |

Source: Data processed by SPSS 25

Based on the Paired Sample t-test in table 7 shows that:

1. Based on pair 1 between January AR and February AR, the t value is 2.011 with a significance value smaller than 0.05 or 0.047 <0.05 and the mean paired differences is 244,866. This value shows the difference between the average abnormal return in January is greater than the abnormal return in February.
2. Based on pair 2 between January AR and March AR, the t value is 2.028 with a significance value smaller than 0.05 or 0.045 <0.05 and the mean paired differences is 325,848. This value shows the difference between the average abnormal return in January is greater than the abnormal return in March.
3. Based on pair 3 between January AR and April AR, the t value is -0.025 with a significance value greater than 0.05 or 0.980> 0.05 and the mean paired differences is -3.268. This value shows the difference between the average abnormal return in January is smaller than the abnormal return in April.
4. Based on pair 4 between January AR and May AR, the t value is 0.564 with a significance value greater than 0.05 or 0.574> 0.05 and the mean paired differences is 72.768. This value shows the difference between the average abnormal return in January is greater than the abnormal return in May.
5. Based on pair 5 between January AR and June AR, the t value is 0.878 with a significance value greater than 0.05 or 0.382> 0.05 and the mean paired differences is 137.161. This value shows the difference between the average abnormal return in January is greater than the abnormal return in June.
6. Based on pair 6 between January AR and July AR, the t value is 0.912 with a significance value greater than 0.05 or 0.364> 0.05 and the mean paired differences is 119.446. This value shows the difference between the average abnormal return in January is greater than the abnormal return in July.
7. Based on pair 7 between January AR and August AR, the t value is -0.458 with a significance value greater than 0.05 or 0.648> 0.05 and the mean paired differences is -66.438. This value shows the difference between the average abnormal return in January is smaller than the abnormal return in August.

8. Based on pair 8 between January AR and September AR, the t value is 0.748 with a significance value greater than 0.05 or 0.456> 0.05 and the mean paired differences is 113.759. This value shows the difference between the January average abnormal return is greater than the September abnormal return.
9. Based on pair 9 between January AR and October AR, the t value is -0.074 with a significance value greater than 0.05 or 0.941> 0.05 and the mean paired differences is -11.518. This value shows the difference between the average abnormal return in January is smaller than the abnormal return in October.
10. Based on pair 10 between January AR and November AR, the t value is -0.234 with a significance value greater than 0.05 or 0.815> 0.05 and the mean paired differences is -39.348. This value shows the difference between the average abnormal return in January is smaller than the abnormal return in November.
11. Based on pair 11 between January AR and December AR, the t value is -0.548 with a significance value greater than 0.05 or 0.585> 0.05 and the mean paired differences is -77.205. This value shows the difference between the average abnormal return in January is smaller than the abnormal return in December.

Based on the results of hypothesis testing in this study using the Paired Sample t-test on abnormal returns, it shows that out of eleven months only two months have significant differences where abnormal returns in January> February and March.

**Wilcoxon Sign Rank Test**

**Table 8** Wilcoxon Sign Rank Test Results Actual Return

| | Z | Asymp. Sig. (2-tailed) |
|---|---|---|
| RR_Februari - RR_Januari | -2.375[b] | .018 |
| RR_Maret - RR_Januari | -4.941[b] | .000 |
| RR_April - RR_Januari | -.186[c] | .853 |
| RR_Mei - RR_Januari | -1.132[b] | .258 |
| RR_Juni - RR_Januari | -.762[b] | .446 |
| RR_Juli - RR_Januari | -.496[c] | .620 |
| RR_Agustus - RR_Januari | -1.367[c] | .172 |
| RR_September - RR_Januari | -2.430[b] | .015 |
| RR_Oktober - RR_Januari | -1.611[c] | .107 |
| RR_November - RR_Januari | -1.788[c] | .074 |
| RR_Desember - RR_Januari | -2.453[c] | .014 |

Source: Data processed by SPSS 25

Based on the Wilcoxon Sign Rank Test results in the table above, it shows that in the period 2018 to 2021, most of the Asymp. Sig (2-tailed) has a significance value greater than 0.05. Meanwhile, based on the Z value in the test above, it shows that the actual stock return value in January has a smaller value than the actual return value in months other than January (February-December). The test results interpret that there is no difference in actual return in January with the other eleven months during the study period. So, it can be concluded that H0 is accepted and H1 is rejected.

**Table 9** Wilcoxon Sign Rank Test Results Abnormal Return

| | Z | Asymp. Sig. (2-tailed) |
|---|---|---|
| AR_Februari - AR_Januari | -1.224[b] | .221 |
| AR_Maret - AR_Januari | -.736[b] | .462 |
| AR_April - AR_Januari | -.637[c] | .524 |
| AR_Mei - AR_Januari | -.258[c] | .796 |
| AR_Juni - AR_Januari | -1.256[b] | .209 |
| AR_Juli - AR_Januari | -.748[b] | .445 |
| AR_Agustus - AR_Januari | -1.598[c] | .110 |
| AR_September - AR_Januari | -.643[b] | .520 |
| AR_Oktober - AR_Januari | -.838[c] | .348 |
| AR_November - AR_Januari | -1.405[c] | .160 |
| AR_Desember - AR_Januari | -.478[c] | .633 |

Source: Data processed by SPSS 25

The Wilcoxon Sign Rank Test results in the table above, show the Asymp. Sig (2-tailed) is greater than 0.05. Meanwhile, based on the Z value in the test above, it shows that the abnormal return value of January stocks has a smaller value than the abnormal return value of months other than January (February- December). The test results interpret that there is no difference in abnormal returns in January with eleven other months during the study period. So it can be concluded that H0 is accepted and H1 is rejected.

**Discussion**

Based on the research results, the absence of the January effect phenomenon in the Indonesian capital market is related to the tax selling hypothesis. According to Tandelilin (2017) tax selling hypothesis is a situation where many investors sell their securities that are predicted to experience losses with the aim of reducing annual taxes at the end of the year. However, this does not happen in Indonesia because the tax payment time in Indonesia occurs in March not at the end of the year. In addition, Aprilia Sari & Sisdyani (2014) stated that the absence of the January effect phenomenon in Indonesia is due to cultural differences between Indonesia and other developed countries, where in developed countries at the end of the year or in December there are Christmas and New Year celebrations. The difference in habits at the end of the year in Indonesia which is not too massively welcomed by investors, this indicates an efficient capital market in weak form. According to Fama (1970) a market is said to be efficient in weak form if the security prices formed today have reflected all information in the past, this past information is information that has occurred such as historical stock price data. This weak form efficiency is related to the random walk theory.

Kendall (1953) explains that based on the random walk theory, the stock price of a company that moves randomly is caused by unpredictable stock price patterns. The random walk theory states that past data has no relationship with current values. In addition, the absence of the Januarry effect anomaly is because in 2020 to 2021 there was high uncertainty in the capital market due to the co-19 pandemic. Capital market anomalies such as the January effect phenomenon can occur due to a more structured pattern or movement of returns at certain times. The results of this study are in accordance with research conducted by Prabowo et al., (2019) which shows that there is no difference in the average return in January with other months (February-December), so there is no January Effect phenomenon on the LQ45 Index during the 2016-2018 period. Gemilang & Dewi (2020) also stated that there was no difference between January stock returns and months other than January, which indicated that there was no January effect phenomenon in the Jakarta Islamic Index (JII) group of stocks listed on the Indonesia Stock Exchange. In addition, this study is also in accordance with research conducted by Saofiah et al., (2019) which states that there is no January effect phenomenon in terms of abnormal returns on the LQ45 group of stocks on the Indonesia Stock Exchange for the 2010-2016 period.

## CONCLUSION

Based on the results of data analysis and hypothesis testing using the Paired Sample t-test on actual return shows that of the eleven months only two months there is a significant difference where the actual retrun

in January> February, March and September. While the results of the Paired Sample t-test on abnormal return show that of the eleven months only two months there is a significant difference where the abnormal return in January> February and March. The Wilcoxon Sign Rank Test results show that the significance value of the actual return in January with eleven other months (February-December) indicates that there is no difference in abnormal stock returns in January with eleven other months in companies included in the LQ45 stock index on the IDX for the 2018-2021 period. The results of testing the research hypothesis show that there is insufficient evidence of differences in actual returns and abnormal stock returns in January with eleven other months, so it can be concluded that there is no January effect phenomenon in companies included in the LQ45 stock index on the Indonesia Stock Exchange for the 2018-2021 period. The absence of the Januarry effect anomaly is due to several factors, one of which is that from 2020 to 2021 there is high uncertainty in the capital market due to the co-19 pandemic. The results of this study have implications that the January effect phenomenon does not occur in companies whose shares are included in the LQ45 index on the Indonesia Stock Exchange because stocks in the LQ45 index are stocks with high liquidity and large market capitalization and are supported by good company fundamentals. So that for further research that will conduct similar research, it is hoped that the research can be carried out separately between the shares of companies that have small, medium and large market capitalizations to test the existence of the January effect phenomenon and can use variables other than actual return and abnormal return.

## REFERENCES


Addinpujoartanto, N. A. (2019). Analysis of January Effect on Big Stock Companies and Small Stock Companies at Indonesia Stock Exchange . *Jurnal Administrasi Bisnis (JAB)* , *1*(2), 47–56.

Andreas, & Daswan, R. (2011). Januari Effect pada Perusahaan LQ45 Bursa Efek Indonesia 2003-2008. *Jurnal Ekonomi* , *19*(3), 11–21.

Aprilia Sari, F., & Sisdyani, E. A. (2014). Analisis January Effect di Pasar Modal Indonesia. *E-Jurnal Akuntansi Universitas Udayana* , *6*(2), 237–248.

Fama, E. F. (1970). Efficient Captial Market: A Review of Theory and Empirical Work . *The Journal of Finance* , *25*(2), 383–417.

Gemilang, S. G., & Dewi, R. K. (2020). Analisis January Effect Pada Kelompok Saham Jakarta Islamic Index (JII) yang Terdaftar di Bursa Efek Indonesia. *SOCIETY : Jurnal Ilmu Tadris Ilmu Pengetahuan Sosial*, *11*(2), 68–83.

Hartono, J. (2017). *Teori Portofolio dan Analisis Investasi* . BPFE.

Indriyani. (2020). Analisis Fenomena January Effect pada Saham Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia (BEI) . *Ekonomi Manajemen & Bisnis* , *20*(1), 39–50.

Kendall, M. G. (1953). The Analysis of Economic Time-Series, Part I: Prices. *Journal of the Royal Statistical Society* , *96*.

Lutfia, R., Wahyudi, & Pinem, D. (2021). Analisis Fenomena January Effect pada Indeks Saham Kompas100 di Bursa Efek Indonesia . *Konferensi Riset Nasional Ekonomi, Manajemen, Dan Akuntansi* , *2*(1), 1104–1117.

Nofsinger, J. R. (2018). *The Psychology of Investing* . Routledge Taylor & Francis Group.

Prabowo, D., Sudarman, & Satmoko, A. (2019). Analisis January Effect Terhadap Return Pasar Indeks LQ-45 Periode 2016-2018. *Buletin Ekonomi* , *17*(2), 141–146.

Pratiwi, I. G. A. M. A. M. A., Dwipradnyana, I. M. M., & Diatmika, I. G. N. D. (2018). Analisis January Effect pada Perusahaan BUMN di Bursa Efek Indonesia . *Majalah Ilmiah Untab* , *15*(1), 31–36.

Ratrini, G. A., & Suartana, I. W. (2021). January Effect di Indonesia Periode 2017-2019. *E-Journal Akuntansi* , *31*(3), 756–768.

Ricciardi, V., & Simon, H. K. (2000). Whats is Behavioral Finance? . *Business, Education and Technology Journal* , *2*(2), 1–9.

Saofiah, R., Abidin, Z., & Oktaryani, G. A. S. (2019). Analisis January Effect Ditinjau dari Abnormal Return dan Trading Volume Activity pada Kelompok Saham LQ45 di Bursa Efek Indonesia Periode 2010-2016. *Jurnal Ilmu Manajemen Dan Bisnis*, *7*(1), 127–139.

Shefrin, H. (2000). *Beyond Greed and Fear: Understanding Behavioural Finance and the Psychology of Investing* . Harvard Business School Press.

Tandelilin, E. (2017). *Pasar Modal Manajemen Portofolio & Investasi*. Kanisinus.

Zacks, M. (2012). *The Little Book of Stock Market Profits*. John Wiley & Sons, Inc., Hoboken, New Jersey.