JANUARY EFFECT ON LQ45 INDEX OF STOCK COMPANY IN INDONESIAN STOCK EXCHANGE DURING 2016 - 2019

Luh Putu Ari Anjani 1, Ida Bagus Panji Sedana 2

1,2 Master of Management Study Program, Faculty of Economics and Business
Udayana University, Bali, Indonesia

ABSTRACT: The January effect is a form of calendar anomaly in the year or commonly called the month of the year effect. January effect is important for investors to know to be able to determine investment decisions. The purpose of this study is to analyze the presence or absence of the January effect phenomenon that occurs in the LQ45 index stock in the Indonesia Stock Exchange during the 2016 to 2019 period. This study uses a causality design method that aims to analyze the relationship between research variables in order to conform to the formulated hypothesis. The data used in the form of closing stock prices of listed companies every month during the study period. The source of this research uses secondary data obtained from the LQ45 index which is accessed through the Yahoo Finance website. This study includes all companies listed in the LQ45 index on the Indonesia Stock Exchange for three consecutive years with a total sample of 32 companies. The sampling of the research was carried out by non-probability sampling, specifically by using a purposive sampling approach. The data analysis method used is descriptive statistical analysis and inferential statistics. Inferential analysis in this study uses parametric statistical tests, namely the Pair-Sample T-Test. The results show that the January effect phenomenon does occur in the study period and the abnormal return of stocks in January is significantly different from months other than January. The findings prove that stockholders sell their shares which are considered less than good at the end of the year and buy back the shares in January.

Keywords: January Effect, Abnormal Return, Market Anomalies.

I. INTRODUCTION

The capital market is one of the important instruments for a country due to the capital market carries out economic and financial functions (Husnan, 2015). Various events that have information content for investors greatly affect the capital market, thus the more important the role of the capital market in a country the more sensitive it is to various events that occur in its environment (Suryawijaya and Setiawan, 1998). Information in the capital market is unpredictable thus the reactions that occur in the capital market also experience the same pattern. The market will just move when the information comes. Indonesia Stock Exchange (IDX) is a capital market in Indonesia. Over the past five years, the number of listed companies and the number of investors on the Indonesia Stock Exchange (IDX) has been increasing (www.idx.co.id). This indicates the strengthening of funds in the capital market.

The number of Indonesian Capital Market investors reached 1.9 million with stock investors reaching 952 thousand in May 2019. This growth proves that more and more investors are investing in stocks on the IDX. The increasing number of investors indicates the more information needed to determine investment decisions. When the prices of assets or securities reflect available information about these assets or securities, they can fulfill the concept of an efficient market (Fama and French, 2016).

Efficient markets can experience anomalies at certain times and repeat or undergo predictable changes. Market anomaly is a technique or strategy that contradicts the concept of an efficient market (Fama and French, 2016). Anomalies cause investors to make predictions due stock price movements are patterned at a certain time and are no longer random. There are four types of seasonal anomalies consisting January Effect, Week End Effect, Time of Day Effect, and Holidays Effect. The January effect is an anomaly that is more closely related to financial statements among all examples of these anomalies because the January Effect occurs due to companies that improve their financial statements at the end of the year by releasing stocks with bad conditions in December. This causes the company's investments presented in the financial statements are investments with good value. The January Effect was chosen because it is the most popular seasonal anomaly among investors and researchers alike.
The January Effect phenomenon is related to the change in the year, specifically in December as the end of the tax year and January as the beginning of the tax year. Companies usually calculate taxes at the end of the year, so investors are more willing to sell stocks that have fallen in value to avoid tax losses. In addition, investors will buy stocks again at the beginning of the year, which will affect the price increase. The high return in January was due to the selling pressure in December. People want to start investing again in January, so there is buying pressure to push up the stock price. Investors expect higher returns at the beginning of the year or January. The increase in capital market returns at the beginning of the year has been a phenomenon time and time again in almost all countries, including Indonesia.

The current abnormal market reaction can be measured by abnormal returns, it can be concluded that announcements containing information may lead to abnormal returns in the market, or in other words, if the one-month effect occurs, it means that investors may receive abnormal returns. This study uses market adjustment models to calculate actual returns, which are then used to determine abnormal returns. Financial industry researchers and market participants often observe an event to understand the impact on the company's environmental conditions. In this case, environmental conditions are closely related to stock trends in the capital market. Fama et al. (2016) In the field of financial economics. This research is supported by previous research, which explains the largest return from the January effect (Li, 2015; Patak, 2016; Kumar, 2017; Rahmawati, 2020). The opposite result is that the January effect has no effect on stock returns. (Easter, 2015; Panyagometh, 2016; Pradnyaparamitha, 2017; Ansori, 2018). This makes an interesting research gap to be tested. The company under investigation is the LQ45 index company, which ranks the top 45 stocks in liquidity and market capitalization among 60 companies. It is actively trading and has become a stock index sensitive to market information.

II. THEORY BASIS AND HYPOTHESES DEVELOPMENT

Signal Theory
The signal theory was first proposed by Spence (2002) and demonstrated the role of signal theory in the market. Signal theory mainly focuses on reducing the information asymmetry between two parties (Spence, 2002). Signal theory shows how companies should provide signals to users of financial statements. The signal in question may be in the form of information about what management has done to fulfill the owner's wishes. Jogiyanto (2013) pointed out that the signal theory emphasizes the importance of information from the institution about the investment decisions. The information released as an announcement provides investors with signals to make investment decisions.

Event Study
Event study theory is a study that observes the impact of information announcements on security prices. Event study research is generally concerned with how quickly information entering the market can be reflected in stock prices (Tandelilin, 2010). Event study can be used to test the information content of an announcement and can also be used to test the efficiency of the semi-strong form of the market. There are four groups of events that are usually the focus of event research, namely; Conventional events, cluster events, unexpected events, and sequential events. Each - each has an impact on each stock return.

Capital Market Efficiency
Capital market efficiency is defined as a market in which the prices of securities reflect all relevant information (Husnan, 2009). Efficient is a securities market is said to be efficient if the prices of securities fully reflect the available information. (Jogiyanto, 2008). All known information refers not only to current information received by the general public, such as financial statements, dividends, and stock fractions. Fahmi and YoviLaviantiHadi (2009) stated that in order for the capital market to run efficiently, there are conditions that must be met, consisting; disclosure, the market is in a state of balance, and market conditions take place freely without intervening between information.

Capital Market Anomaly
Anomalies cause market movements are no longer random but structured at certain times. The market anomaly causes a pattern of return movements that can be predicted by investors, which can then be used to produce higher abnormal returns. Pompian (2006) divides market anomalies into 3 types, namely; Fundamental anomalies; Technical anomalies; Anomalies calendar. The January effect is one part of the calendar anomalies where the anomaly is shown based on the return in January which tends to be higher than other months. This is greater for smaller firms and in the first five trading days at the beginning of the month.

Stock price
According to Rusdin (2008), stock prices are determined according to the law of supply and demand or bargaining power. The more people who want to buy, the stock price tends to move up. Conversely, the more people who want to sell a stock, the stock will move down.

**Research Framework**

Various events that contain information for investors greatly affect the capital market. Information helps investors and as an indicator to take action in the capital market due to information can affect stock price fluctuations in the capital market. If it moves according to the available information, then that is when the capital market is said to be able to provide a true picture of the state of the economy, not moving based on predictable patterns. An efficient market does not allow for abnormal rates of return, although in practice there are things that deviate, which are called anomalies. Jones (2014) mentions that market anomaly is a technique and strategy when the reaction of the capital market seems contrary to the concept of an efficient market. Among these anomalies, the January effect is an anomaly that is closer to the financial statements because the January effect occurs as a result of companies improving their financial statements at the end of the year by releasing stocks with bad conditions in December. The January effect phenomenon is related to a change in the year, namely in December as the end of the tax year and January as the beginning of the tax year. The behavior of issuers in January reacted to the market in that month. This causes investors to sell more, which will result in market prices.

![Research framework](image)

**H1:** There is a difference in abnormal returns (January effect) on LQ 45 shares on the Indonesia Stock Exchange

### III. **RESEARCH METHOD**

This research is a quantitative research type. Research using causality design method which aims to analyze the relationship between research variables can also be seen as empirical testing of the hypothesis of an event that has been designed and carried out using company data sources listed and can be accessed through www.idx.co.id and www.finance.yahoo.id. This study examines companies listed on the LQ 45 index of the Indonesia Stock Exchange. The data used is the closing stock price of the listed companies every month during the study period. This study also uses qualitative data regarding the concept of abnormal return information. The research source uses secondary data in the form of historical data on stock prices of LQ45 index companies which are accessed through the Yahoo Finance website.

The population and sample in this study are companies listed in the LQ45 index for the 2016 until 2019 period on the Indonesia Stock Exchange, using a purposive sampling method and consistently selected to be in the LQ45 index in January 2016 until 2019.

The variables used in this study are stock returns and abnormal returns. Stock return is the return obtained by the investor in making an investment. There are two types of known returns, consisting actual returns and expected returns.

a. Calculating the actual return during the observation period can use the equation (Jogiyanto, 2003):

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

Information:

- $R_{i,t}$: Actual return
- $P_{i,t}$: Stock price in the calculated month
- $P_{i,t-1}$: Stock price in the previous month.

b. According to Bambang Wijayanto (2002), the expected return for all 45 securities is assumed to be close to the equivalent of the expected market return in that period, as follows:
E (Ri) = E(Rm) ……………………………………. (2)

Information:
E (Ri) = Stock’s expected return 
E(Rm)= Market’s expected return

c. The Market Adjusted Model assumes that the expected stock return is the same as the market return, so the expected return formula is to use the market return formula, as follows:
RM,T = IHSGt Index – IHSGt-1 Index ……….. (3)

Information:
RM,t : Market return 
IHSGt Index: IHSG Index calculated for the month 
IHSGt-1 Index: IHSG Index for the previous month

d. Abnormal return stock is calculated by the equation (Jogiyanto, 2003):
ARit = Rit - (E) Rit ……………………………….. (4)

Information:
ARit = Abnormal return 
Rit = Actual return 
(E) Rit = Expected return

Variables were analyzed using quantitative techniques with SPSS and Ms. Excel. Testing the normality of the data is needed to determine that the data that has been collected is normally distributed or taken from a normal population. Abnormal stock returns are calculated to determine the market reaction to the January effect event which can be seen from changes in the company's stock price in months other than January. The estimation model used in this test is the market adjusted model. This model does not need to use the estimation period because this model assumes that the expected return is the same as the market return. The first step is to prepare historical price data for each issuer in January 2016 to December 2019. Other data that needs to be prepared is IHSG data for each period. Finally, the difference test (T-Test) to find out two unrelated samples have different mean values.

IV. RESEARCH RESULTS AND DISCUSSION

Descriptive Analysis

Statistically, the company's abnormal return (AR) in the LQ45 index in January 2016 had an average of -0.0100188 with a standard deviation (average deviation) of abnormal return of 0.00652603. This shows that there is an average negative abnormal return which means that the actual return that occurs is lower than the expected return. The minimum value of the average abnormal return or the lowest average abnormal return in January 2016 occurred in SRIL companies with an average value of -0.03087, while the maximum value of the average abnormal return or the highest average abnormal return was in January 2016 occurred in ADHI companies with a value of -0.00097. The results can be seen in Table 1.

| Table 1. Results of Descriptive Abnormal Return Statistics for January 2016-2019 |
|----------------------------------|--------|--------|--------|--------|
| AR January 2016                 | 32     | -0.03087 | -0.00097 | -0.0100188 | 0.00652603 |
| AR January 2017                 | 32     | -0.00274 | 0.01681 | 0.0046554 | 0.00378646 |
| AR January 2018                 | 32     | -0.02932 | -0.00498 | -0.0204684 | 0.00585523 |
| AR January 2019                 | 32     | -0.05961 | -0.04519 | -0.0534186 | 0.00374045 |
| AR January Average              | 32     | -0.02697 | -0.01461 | -0.0198126 | 0.00271095 |
| Valid N (listwise)              | 32     |        |        |        |        |

Source: data processed, 2021

The company's abnormal return (AR) in the LQ45 index in other months in the 2016 period has an average of -0.0220706 with a standard deviation (average deviation) of abnormal return of 0.00135380. This shows that there is an average negative abnormal return which means that the actual return that occurs is lower than the expected return. The minimum value of the average abnormal return or the lowest average abnormal return in other months during the 2016 period occurred in INTP and LPKR companies with an average value of -0.02423, while the maximum value of the average abnormal return or abnormal average The highest return in Others 2016 occurred in ADRO companies with a value of -0.01787. The results can be seen in Table 2.
Table 2 Descriptive Statistical Results of Abnormal Returns for Other Months 2016-2019

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR for other months 2016</td>
<td>32</td>
<td>-0.02423</td>
<td>-0.01787</td>
<td>-0.0220706</td>
<td>0.00135380</td>
</tr>
<tr>
<td>AR for other months 2017</td>
<td>32</td>
<td>-0.02211</td>
<td>-0.01707</td>
<td>-0.0198226</td>
<td>0.00129965</td>
</tr>
<tr>
<td>AR for other months 2018</td>
<td>32</td>
<td>0.00459</td>
<td>0.00901</td>
<td>0.0069477</td>
<td>0.00106449</td>
</tr>
<tr>
<td>AR for other months 2019</td>
<td>32</td>
<td>0.00404</td>
<td>0.00962</td>
<td>0.0054932</td>
<td>0.00110253</td>
</tr>
<tr>
<td>Average AR for other months</td>
<td>32</td>
<td>-0.00885</td>
<td>-0.00652</td>
<td>-0.0073631</td>
<td>0.00060401</td>
</tr>
</tbody>
</table>

Fluctuations in the average abnormal return in the observation period. The highest abnormal return value in January occurred in 2017 with an average value of 0.004655359 and the lowest occurred in 2019 with an average value of -0.053418612. Furthermore, the graph shows that the highest abnormal return value in other months occurred in 2018 with an average value of 0.006947717 and the lowest occurred in 2016 with an average value of -0.02207.

![Graph of Average Abnormal Return for January and Other Months in 2016-2019](image)

Figure 2. Graph of Average Abnormal Return for January and Other Months in 2016-2019

Normality Test Analysis

The significance value (Asymptotic Sig.) of the abnormal return (AR) variable in January and other months shows a significance value of more than 0.05, namely the abnormal return (AR) in January has a value of 0.863 and the abnormal return (AR) in other months has a value of 0.542. Thus the research data on the abnormal return (AR) variable in January and other months have been normally distributed and furthermore, for testing the research hypothesis, parametric analysis method can be used, namely Paired Sample T-Test.

Tabel 3. Normality Test Results

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
<th>Average AR in January</th>
<th>Average AR in other months</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Normal Parameters(^{ab})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-.0198126</td>
<td>-.0073631</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.00271095</td>
<td>.00060401</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.106</td>
<td>.142</td>
</tr>
<tr>
<td>Positive</td>
<td>.106</td>
<td>.081</td>
</tr>
<tr>
<td>Negative</td>
<td>-.100</td>
<td>-.142</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.601</td>
<td>.801</td>
</tr>
<tr>
<td>a. Test distribution is Normal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Calculated from data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: data processed, 2021
Based on table 3, it can be seen that the significance value (Asymptotic Sig.) of the abnormal return (AR) variable in January and other months shows a significance value of more than 0.05, namely abnormal return (AR) in January has a value of 0.863 and abnormal return (AR) other months have a value of 0.542. Thus the research data on the abnormal return (AR) variable in January and other months have been normally distributed and furthermore, for testing the research hypothesis, parametric analysis method can be used, namely Paired Sample T-Test.

**Paired Samples T-Test**

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td>Average AR in January - Average AR for other months</td>
<td>.012449</td>
<td>53</td>
<td>.0029242</td>
</tr>
</tbody>
</table>

Table 4. shows the value of sig. (2-tailed) 0.00 which has a value less than 0.05. This value states that stock returns differ significantly between January and other months, because sig. (2-tailed) 0.000 <0.05, so that the hypothesis that states abnormal stock returns differs significantly between January and other months is acceptable. This means that the January Effect occurs on the Indonesia Stock Exchange, especially for LQ45 companies.

**Paired Samples T-Test. Correlation Test**

The results of the correlation test or the relationship between the two data or the relationship between the January stock abnormal return variable and the other month stock abnormal return variable. Based on the output above, it is known that the correlation coefficient value is -0.256 with a significance value (Sig.) of 0.158. Because the value of Sig. 0.158 > 0.05 probability, then it can be said that there is no correlation or relationship between the abnormal January stock return variable and the other months stock abnormal return variable.

**V. Discussion**

Based on the results of hypothesis testing that has been carried out on stock returns of LQ 45 index companies in January and months other than January, it is known that the average AR significance value for January (0.000) is smaller than 0.05. This shows a significant difference between January and other months. This significant result shows that the January effect occurs in LQ 45 stock companies for the 2016-2019 period.

Based on signaling theory, these results assume that the company's policy of selling low-value stocks at the end of the year and buying them back in January of the following year is considered as information that gives a positive signal to the market. Based on event study theory which studies the market reaction to a published event, these results imply that investors have positive feelings in the market or it can be said that the market perception of these information signals tends to be good. The following table shows the abnormal return of the LQ 45 company's stock.

**Table 6 Abnormal Company Stock Returns LQ45**

<table>
<thead>
<tr>
<th>Abnormal Return</th>
<th>AR (%)</th>
<th>January average</th>
<th>Average months other than January</th>
<th>Significance Level</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR (%)</td>
<td>-0.0198126</td>
<td>-0.0073631</td>
<td>0.000</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed Data, 2021
The results of Phatak's research (2016) which proves that capital market players are interested in investing in January and selling stocks that are considered unfavorable in months other than January. Similar results were also found by Kumar (2017) which states that there is a significant difference in the average return in January and months other than January. The difference in abnormal stock returns in January was caused by several factors including selling stock at the end of the year to reduce taxes (tax-loss selling), investors selling securities that experienced losses before the end of the year and at the beginning of the year they would buy back the securities, this act of selling in late December and buying in early January is what causes the price decline at the end of the year and an increase at the beginning of the year. Apart from tax-loss selling, there may also be several reasons, including realizing capital gains, where investors buy shares at a low price in January and sell at a high price at the end of the year.

In addition to this, window dressing can also be a factor causing the January effect, where this window dressing has almost the same purpose as tax-loss selling, namely so that the performance of the stock portfolio reported at the end of the year will look good by selling those that have a capitalization. bad at the end of the year and buy stocks with good capitalization at the beginning of the year (Pradnyaparamitha, 2017). This can also be the same cause for the results of research conducted in Indonesia, because the research period was before and after the 2008 economic crisis, causing insignificant results in the acquisition of abnormal stock returns.

In line with that, research conducted by Rahmawati (2020), Pathak (2016), Kumar (2017), Li (2015), and Pradnyaparamitha (2017) also states that there are significant differences in abnormal company stock returns between January and months other than January.

VI. CONCLUSIONS AND IMPLICATIONS

This study shows that there is a significant difference in the abnormal return of stocks in January with other months on LQ45 shares on the Indonesia Stock Exchange for the period 2016 to 2019. This study shows that there is no market efficiency in the form of half-strong because the prices of securities are not fully reflected published information and investors are able to obtain abnormal returns by using strategies built on publicly available information. This research is expected to add to the literature on financial management science and can provide a reference on the effect of January on abnormal returns of LQ 45 stocks. The results of the research that have been carried out show the same results as existing theories and support previous empirical studies which state that January returns are higher. of returns for months other than January.

This study shows that the January effect phenomenon did occur during the study period and the abnormal stock returns in January differed significantly from months other than January. Eyuboglu (2016) mentions that the January Effect phenomenon occurs in company shares in the sports and leasing sector. The similarity of these findings proves that stockholders sold their shares which were considered unfavorable at the end of the year and bought back the shares in January. This is not in accordance with the concept of capital market efficiency which states that if a market has investors who are smart and fast in obtaining information, then the price of a stock fully reflects all the information available at that time. This research is expected to be empirical evidence for future studies and to be able to contribute to the development of financial management science related to financial performance and stock investment decisions.

VII. REFERENCES


