

MARKET ANOMAL TESTING REGARDING THE JANUARY EFFECT, ROGALSKI EFFECT AND MONDAY EFFECT IN BANKING SECTOR COMPANIES ON THE INDONESIA STOCK EXCHANGE

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Abstract

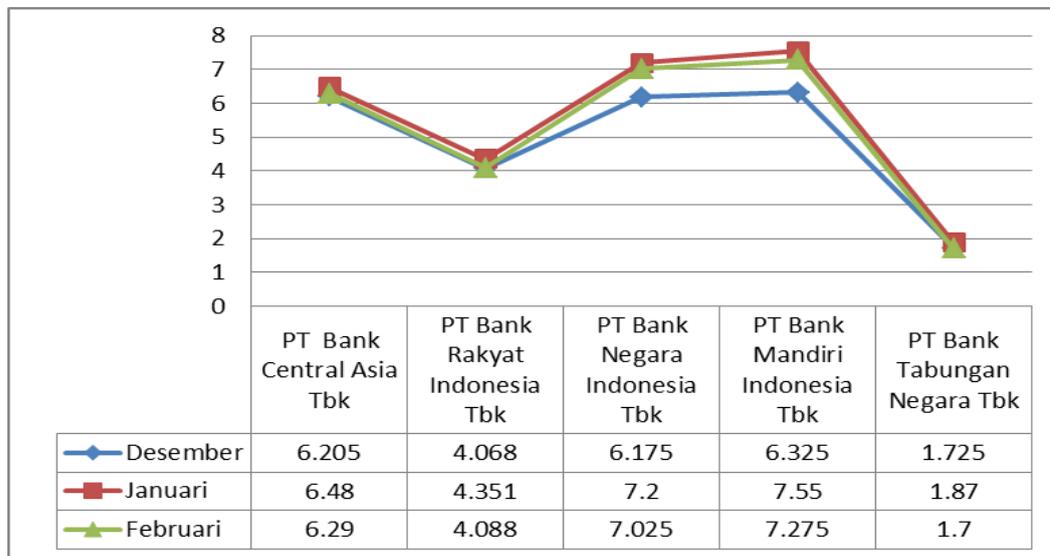
This study aims to look at market anomalies such as the January effect, Rogalski effect and Monday effect in the banking sub-sector companies in Indonesia. This study uses a quantitative method with an analysis of the Average Difference Test. negative. The Rogalski Effect shows no significant difference when Return is positive or negative. The Monday Effect shows that there is a significant difference in the Monday Effect when the Return is positive or negative.

Keywords: *Market Anomaly, January Effect, Rogalski Effect, Monday Effect and Abnormal Return*

INTRODUCTION

The capital market is a financial market for various long-term financial instruments that can be traded in the form of debt or equity. These financial instruments can be stocks, bonds, etc. The capital market in its activities carries out economic and financial functions, in carrying out its economic functions (Robert ang in Basalama, 2017) as an intermediary institution, where this function shows the important role of the capital market in supporting the economy because the capital market can connect parties who need funds with those who have surplus funds. *Abnormal returns* or abnormal return is the difference between the return or actual profit rate (actual return) with the expected profit rate (expected return). Abnormal returns are often used to evaluate the performance of securities, which can also be used as a basis for testing market efficiency. The market will be said to be efficient if there is no single market participant who enjoys abnormal returns in a long enough period of time. Abnormal returns usually occur around the announcement of an event. Events related to financial and non-financial. These events, for example, include mergers and acquisitions, dividend announcements, announcements of productive companies, lawsuits, increases in interest rates and also disasters, one of which is the Covid-19 pandemic. *january effect* is a phenomenon that is more closely related to financial statements. The January effect occurs when companies improve their financial statements at the end of the year. They released shares with bad conditions in December, so that the company's investments presented in the financial statements are investments with good value. In Indonesia, stock price data obtained in 2020 shows a tendency for the January effect, where stock prices in January are higher than in other months.

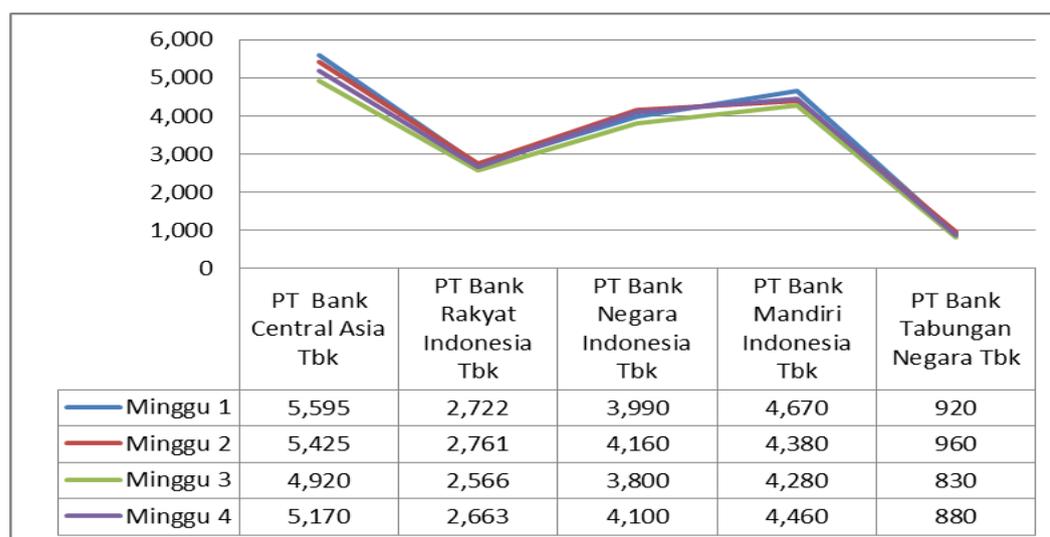
Picture 1.1 2020 Stock Price Chart



Source: id.investing.com, (2022)

Based on Figure 1.1 above, it can be seen that the phenomenon of The January Effect in December, January and February experienced fluctuating conditions at the five banks above. It can be seen that in January the stock prices at the five banks above were higher than in December and February. This indicates that the effect on January in 2020 exists, because the price of shares owned in January is higher than December and February at the five banks above. *Rogalski Effect* is a phenomenon where the negative return that usually occurs on Monday disappears in April. And one of the studies that put forward this phenomenon said the Rogalski effect was found in April, not in January. effect) disappears in a given month. This is due to the tendency of higher returns in that month compared to other months.

Figure 1.2 Graph of 2020 Stock Prices



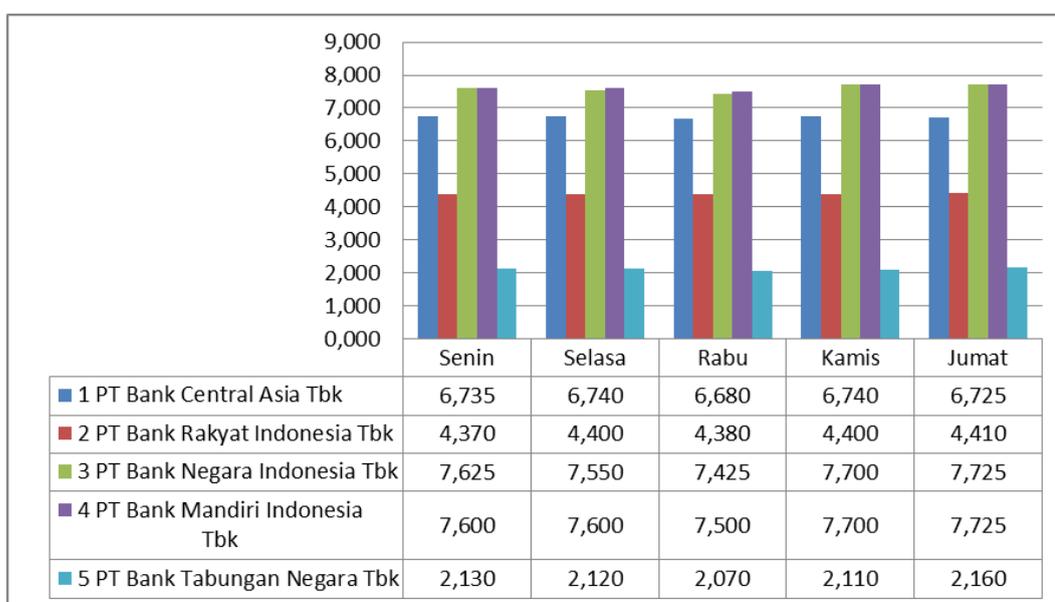
Source: id.investing.com, (2022)

Based on Figure 1.2 above, it can be seen that the Rogalski Effect phenomenon in April experienced fluctuating conditions at the five banks above, PT Bank Central Asia Tbk in the third week had a stock price of 4,920, then PT Bank Rakyat Indonesia Tbk experienced an increase from the first week. until the second week, but in the third to fourth week it experienced a significant decrease, and PT Bank Negara Indonesia Tbk also

experienced fluctuating conditions, in the first week to the second week it experienced an increase until the third week it experienced a decrease and again an increase in the fourth week, at PT Bank Mandiri Indonesia Tbk the first week to the third week it experienced a decreasing Rogalski Effect phenomenon but in the fourth week it experienced a significant increase to touch 4,460, and the last one on PT Bank Tabungan Negara Tbk experienced an increase from the first week to the second week and so on in the third to fourth week it actually experienced a significant decrease, compared to other banks, PT Bank Tabungan Negara Tbk had the smallest share price compared to other banks. PT Bank Tabungan Negara Tbk has the smallest share price compared to other banks. PT Bank Tabungan Negara Tbk has the smallest share price compared to other banks.

Monday Effect is an example of a seasonal anomaly, which is when stock returns are significantly negative on Monday, and according to previous studies such as Iramani's research (2006) examined market anomalies associated with stock returns on the Jakarta Stock Exchange and the results of their research showed negative or lowest returns occurring on Mondays, meanwhile, according to Setyowati (2010) suggested an interesting relationship between Day of the week effect with the January effect. The average return in America on Monday in January tends to be positive while Monday's return in other months is negative. This shows that the Monday effect disappears in January as a result of the tendency for returns in January to be higher than returns in other months.

Figure 1.3 Graph of 2020 Stock Prices



Source: *id.investing.com*, (2022)

Based on Figure 1.3 above, it can be seen that the Monday effect phenomenon only occurs at PT Bank Rakyat Indonesia Tbk because the stock price on Monday is the lowest compared to other days, because the Monday effect occurs when returns are negative on Monday.

RESEARCH METHODS

Research Objects and Locations

The location in this research is the Banking Sector which is listed on the Indonesia Stock Exchange for the 2018-2021 period.

Data Types and Sources

The main data type of this research uses secondary data because this research uses financial reports as the main research data. Secondary data is data that has been pre-processed and data obtained through financial reports published on the official website, thus this study uses panel data as a type of data. According to Basui and Prewoto (2017), panel data is a combination of time series data and cross data (Cross Section). This is because the data in this study is data that is more than one object and several time periods (2018-2021) with research aids using SPSS.

Data collection technique

In this study, researchers used several data collection methods according to the problem under study. The data collection technique used in this study was the documentation method. The documentation method was data collected from evidence and documents related to the object of research. In this study, it is in the form of financial reports consisting of income statements, balance sheets which were examined by the author to be used as material in this study (Saputri, 2017). This research is a quantitative study that focuses on measuring variables in testing theories with numbers and analyzing data using statistical procedures to test hypotheses. According to the type of this research is a comparative research. According to Sugiyono (2017) comparative research is a study that compares one variable to another.

The population used in this research is conventional banking sub-banks listed on the Indonesia Stock Exchange for the 2018-2021 period, totaling 46 banks. The sample in this study is 42 banks that have met the criteria. The sample criteria in this study are:

1. Banking sector companies listed on the IDX.
2. Banking sector companies that published financial reports in the observation year before Covid 19 (2018-2021).
3. Banking sector companies that publish financial reports in the year of observation during the Covid 19 period (2020-2021).

This study used the t-test data analysis technique. The purpose of this test is to prove whether there are differences in abnormal returns on several market anomaly variables. Paired difference test (Paired Sample t-test) is the test used, where this test serves to prove whether or not there is a relationship between two samples that are not related to having a different average value (Ghozali, 2016)

RESULTS AND DISCUSSION

Descriptive statistics

Based on the results obtained, the following are descriptive statistics of the Rogalsky Effect, January Effect, and Monday Effect.

Table 4.1
Results of Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Means	std. Deviation
Rogalski Effect	104	-.010037845	.0128133220	.00062356865	.003704361442
January Effect	504	-.021726453	.0237986510	.00100433689	.004856158207
Monday Effect	210	-.010037845	.0128133220	.00072258533	.003365691194
Valid N (listwise)	104				

Source: Appendix 2

January Effect

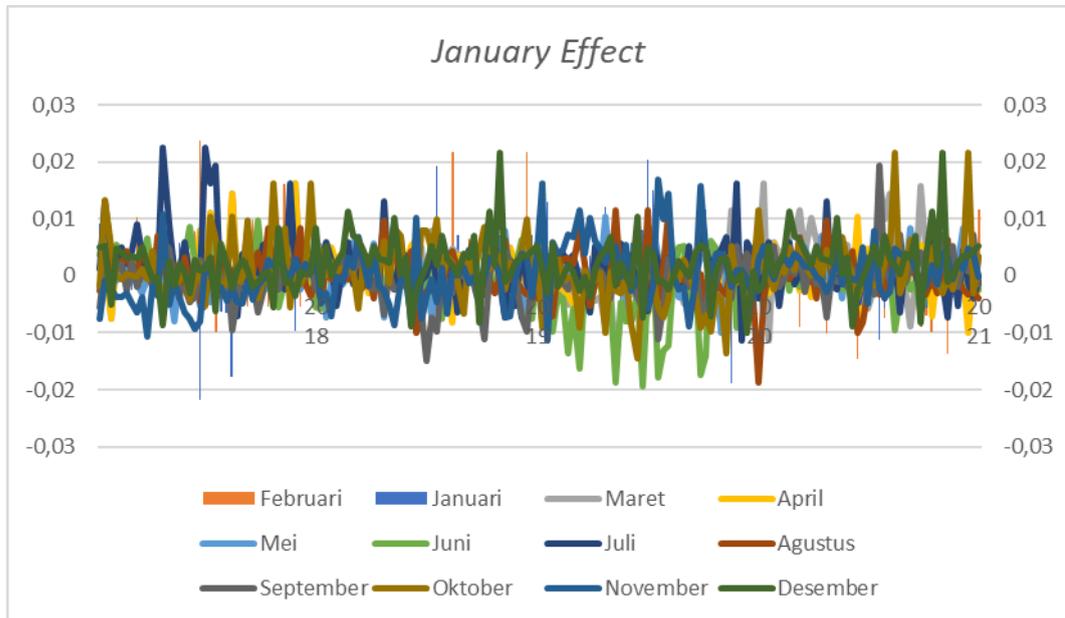


Figure 4.1
Average Abnormal Return January Effect

Based on Figure 4.1 the results of the average abnormal return from the January effect in banking companies, where there are fluctuations every month, however, it can be seen that the lowest return in 2018 was -0.023 percent in January, while the highest was in February of 0.021 percent.

Rogalski Effect

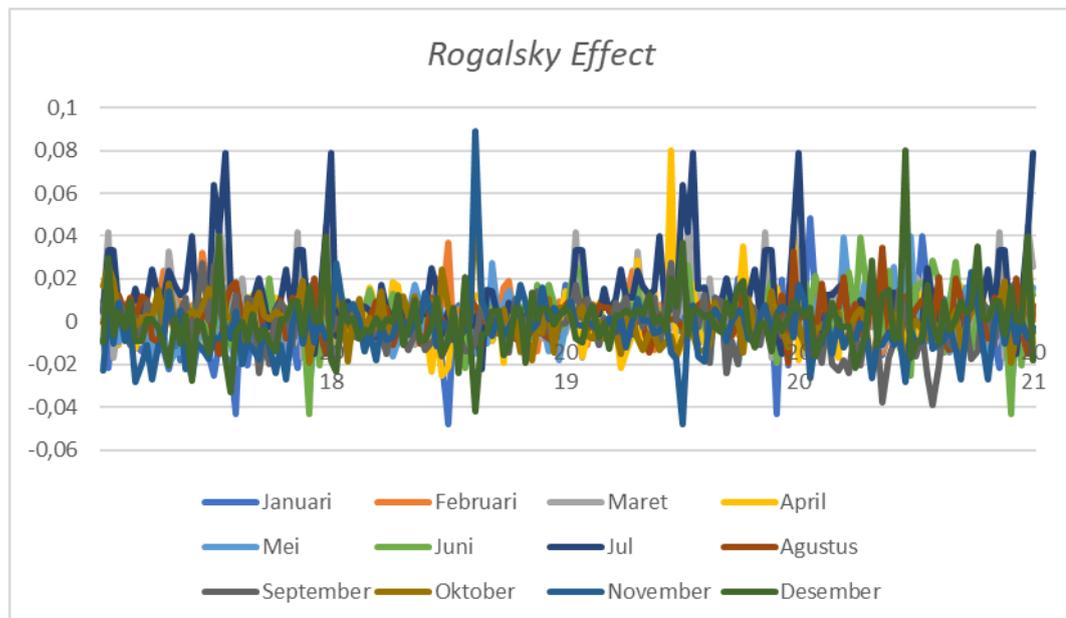


Figure 4.2
Average Abnormal Return on the Rogalski Effect

Based on Figure 4.2 the results of the average abnormal return Rogalsky effect in banking companies, where there are fluctuations every month, however, it can be seen that the lowest return in 2018 amounted to -0.04 percent in July, while the highest was in November of 0.08 percent.

Monday Effect

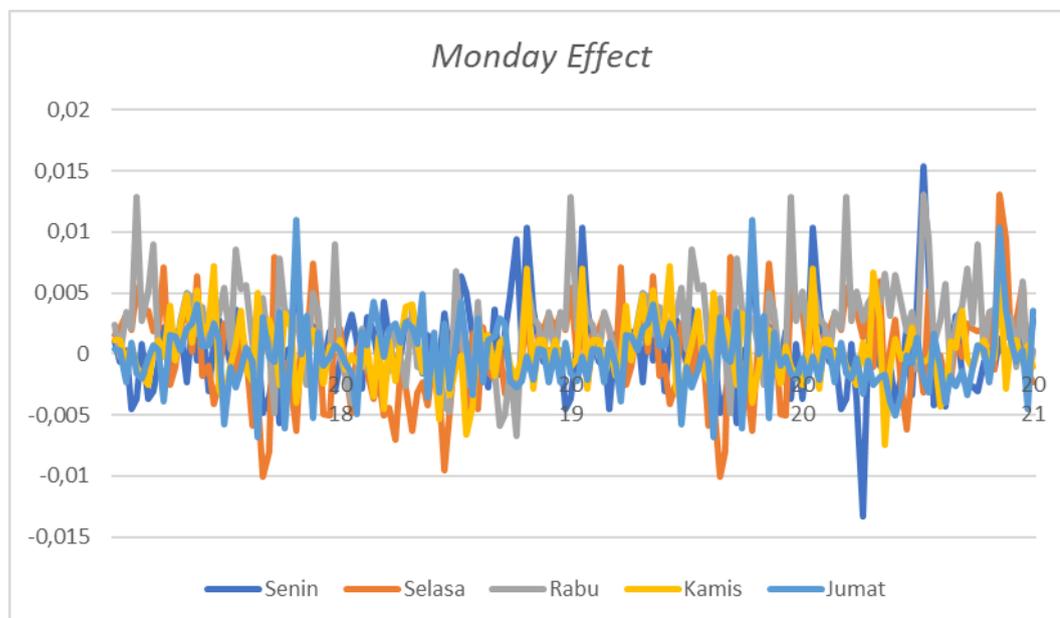


Figure 4.3

Average Abnormal Return on Monday Effect

Based on Figure 4.2 the results of the average abnormal return from the Monday effect in banking companies, where there are fluctuations every day, however, it can be seen that the lowest return in 2021 is -0.012 percent on Monday, while the highest is on Monday, week 3 by 0.016 percent in 2021.

Normality test

Table 4.2
Kolmogorov-Smirnov Summary Results

Tests of Normality				
Variable	Abnormal	Kolmogorov-Smirnova		
		Statistics	df	Sig.
Rogalski Effect	Negative Returns	.071	76	.200*
	Positive Returns	.108	28	.200*
January Effect	Negative Returns	.110	76	.023
	Positive Returns	.156	28	.080
Monday Effect	Negative Returns	.080	76	.200*
	Positive Returns	.101	28	.200*
*. This is a lower bound of the true significance.				
a. Lilliefors Significance Correction				

Source: Appendix 3

Based on Table 4.2 from the results of screening data on these three variables, namely where the Rogalsky Effect and the Monday Effect have a significance value of $0.200 > \alpha (0.05)$, it means that the residual data is

normally distributed, so for testing the next hypothesis using a parametric test with an independent sample t test . But for the January Effect variable there is a significance value <0.05 , meaning that the January Effect variable is not normally distributed, so hypothesis testing is done by using a non-parametric statistical test with Kruskal Willis.

Test Independent Sample t test

Table 4.3
Test Summary Results Independent Sample t test

Variable	Sig	Cut Off	Information
<i>Rogalski Effect</i>	0.730	0.05	There is no significant difference <i>Rogalski Effect</i> when Return is positive or negative
<i>Monday Effect</i>	0.032		There are significant differences <i>Monday Effect</i> when Return is positive or negative

Source: Appendix 4

Based on Table 4.3 it can be seen interpreted as follows:

1. The significant value obtained for the Rogalsky Effect variable when the Return is positive or negative is $0.730 > 0.05$ (α), this indicates that there is no significant difference in the Rogalsky Effect when the Return is positive or negative.
2. The significance value of the Monday Effect variable when the Return is positive or negative is obtained is $0.032 < 0.05$ (α), this indicates that there is a significant difference in the Monday Effect when the Return is positive or negative.

Kruskal Willis test

Table 4.4
Test Summary Results Kruska Willis

Variable	Sig	Cut Off	Information
<i>January Effect</i>	0.139	0.05	There is no significant difference <i>January Effect</i> when Return is positive or negative

Source: Appendix 4

Based on Table 4.4 of the Kruskal Willis test on the January Effect variable, a significance value of $0.139 > 0.05$ is obtained, meaning that there is no significant difference between the January Effect when the Return is positive or negative.

Research Conclusion

Based on the results of the research and discussion that have been put forward, the conclusions of this study are:

1. There is no significant difference in the January Effect when the Return is positive or negative in Banking companies Listed on the Indonesia Stock Exchange.
2. There is no significant difference in the Rogalsky Effect when the return is positive or negative in banking companies listed on the Indonesia Stock Exchange.
3. There is a significant difference in the Monday Effect when the return is positive or negative for banking companies listed on the Indonesia Stock Exchange.

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