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Market Anomaly Testing: Phenomena of Day of the Week Effect and Month of the Year Effect on IDX80 in Indonesia Stock Exchange

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Abstract

This study aims at determining occurrence of day of the week effect, Monday effect, weekend effect, month of the year effect, and January effect on IDX80 stock trading in the Indonesia Stock Exchange. This is an empirical study on trading time (daily and monthly) and stock returns using comparative method. The population is companies incorporated in the IDX80 index on the Indonesia Stock Exchange. Applying purposive sampling method, the sample was 70 companies consistently listed in the IDX80 index and were actively trading. The data covering daily and monthly stock returns for the period 1 February 2019 - 31 January 2020 were analyzed using Kruskal Wallis and Mann Whitney U Test/Wilcoxon Sum Rank Test. The results show that during the study period, market anomalies occurred in the Indonesian Capital Market were the day of the week effect, Monday effect, and month of the year effect. While market anomalies that haven't been proven to occur in the Indonesian Capital Market were the weekend effect and the January effect.

Keywords: day of the week effect, Monday effect, weekend effect, month of the year effect, January effect

INTRODUCTION

Proper and profitable financial design in the future is important for the society in short term and long term. One of the financial designs in the future is investment especially those in capital market. Information is considered as one important aspects for considering investing in a capital market. The flow of information in the capital market certainly affect investors in preparing their stock investment portfolios. Investors must be observant and analyze the

information and predict its impact on their portfolio. When information is directly absorbed and reflected through the stock price which in this case reflects the true value of the issuer, the capital market is thus efficient (Tandelilin, 2017: 224).

According to Pradnyaparamita (2017), various research on capital markets in particularly those relate to behavioral finance disputes the concept of efficiency in the capital market. The results show that several deviations occur in the capital market that can affect stock prices. Trisnadi and Sedana (2016) whose study was on Behavioral Finance revealed that the investor decision-making process is not always rational. The irrationality of investors causes deviations in the concept of efficient market that affects investors in selling or buying. Trisnadi and Sedana (2016) emphasized that such deviation can lead investors to make profit in transaction considering the past data gathering from stock price predictions. Deviation in a capital market is known as market anomaly.

Market anomalies especially seasonal anomalies (calendar effects) violate the efficient market hypothesis since investors can predict stock prices and future stock returns using specific calendar or time guidelines. Day of the week effect is an example of seasonal anomaly (calendar effect). According to Alteza (2007), day of the week effect is an anomaly in the capital market and causes the trading day to affect the pattern of stock returns. The two common forms of this market anomaly are Monday effect and weekend effect. Monday effect indicates that Monday's return is likely to be negative compared to other trading days. According to Rystrom and Benson (1989), this phenomenon occurs because irrational investors assume that Monday as the first day of work is a bad day (Sumiyana, 2008:05). In addition, Monday reflects the impact of taking investor’s profits out on the previous trading day, i.e. Friday and thus the return on Monday tends to be negative. Similarly, irrational investors consider weekend effect as a return at the end of the week that tends to be positive. Another type of seasonal anomaly

is month of the year effect which assumes that different trading months produce different stock returns. One example is the January Effect, which is interpreted as a seasonal pattern where the return in January will be higher compared to other months. This can happen because January is the beginning of the year in which investors consider it as a month with a positive climate and high optimism to trade.

Research on the phenomenon of day of the week effect and month of the year effect especially in the LQ45 index shows inconsistency. This is possibly due to differences in observation periods and events that occur during the observation period. These inconsistent results form a fundamental question about the efficient market hypothesis in which market anomalies will not occur. These also motivate researchers to retest the phenomenon of day of the week effect and month of the year effect in the Indonesian capital market in particularly the Indonesia Stock Exchange (IDX). Retesting is considered important because timing to sell-off or buy is an important factor for investors in both short-term and long-term. Researchers used the IDX80 data which is a new index in the IDX. IDX80 is a stock index in the IDX consisting of 80 issuers with the largest market capitalization. IDX80 implements free-float weighting and issuers incorporated in IDX80 have high liquidity and large market capitalization and are supported by the fundamental aspects of a good company. This study aims at determining occurrence of day of the week effect, Monday effect, weekend effect, month of the year effect, and January effect on IDX80 stock trading in the Indonesia Stock Exchange.

LITERATUR REVIEW

Day of the Week Effect

One of the return patterns intensively studied is the difference in return for certain days of the week. The results of Gibbons and Hess (1981) in Tandelilin (2017: 228-229) show that returns on Monday will be lower compared to other days in the New York Stock Exchange.

This anomaly means that the difference in trading days affects the pattern of stock returns in a week. The Monday effect and weekend effect are included in this seasonal anomaly. Based on the perspective of behavioral finance theory, the anomaly of day of the week effect occurs because investors act irrationally in making decision (Trisnadi and Sedana, 2016: 3798). The argument that supports this hypothesis is human psychology, which assumes that weekend will cause positive effects while the beginning of the week has a negative effect on investors. In daily stock trading activities in the secondary market, stock prices are likely to fluctuate (IDX, 2019). According to Ambarwati (2009: 3), stock returns will systematically be higher or lower on certain days of the week. The first hypothesis can thus be formulated as follows:

H1: There is a difference in the average daily stock return in five days of stock trading.

Monday Effect

According to Mehdian and Perry (2001) in Space (2006: 198), Monday effect is a seasonal anomaly or calendar effect that occurs in financial markets when stock returns are significantly negative on Monday. Thadete (2013) in Khoidah and Wijayanto (2017: 114) revealed that Monday effect is a phenomenon where the stock return on Monday is significantly lower than that on the other day of the week or is experiencing a significant negative return. Thus, an assumption arises if the return is present. Monday is predictable. Lakoshinok and Maberly 1990 in Sumiyana (2008: 5) stated that investors on average is more likely to sell their shares on Monday than buy them. The transaction on Monday is thus higher than those on the other days. Dyl (1988) in Budileksmana and Hambayanti (2006: 199) argued that high sell-off on Monday is due to unfavorable information that is likely to occur in the capital market after the trading is closed on Friday (weekend). Based on this description, the second hypothesis is formulated as follows:

H2: There is a difference between Monday average stock return and the other days average return of shares.

Weekend Effect

According to Tandelilin (2001) in Luhgiatno (2012: 71), weekend effect is an influence of the weekend which results in a symptom indicating that the stock return on Friday will be higher compared to the other trading days. The conjecture of this phenomenon is due to investors' psychological factors encouraging transactions, one of which is profit-taking action to anticipate a holiday (Sularso et al, 2013). Weekend effect occurs when there is a difference between the average return of shares on Friday and that of the other days where the first is the most positive return compared to the later. The third hypothesis is thus formulated as follows:

H3: There is a difference between Friday average stock return and the other days' average return.

Month of the Year Effect

According to Ambarwati (2009: 3), month of the year effect refers to the behavior of stock returns each month in one year; the return of stocks will systematically be higher or lower in certain months of a year. This study suspects that there is a difference in stock returns in each trading month due to certain situations that affect stock prices, such as political situation, economy, holiday, and culture occurring in different trading months. The possibility of market sentiment both positive and negative will cause a significant difference in each trading month on the IDX. Based on the description, the fourth hypothesis can be formulated as follows:

H4: There is a difference in monthly stock returns in 12 months of stock trading

January Effect

According to Gruber et al. (2003); Cahyaningdyah (2004); Jones (2004) in Alteza (2007: 36), January effect is an anomaly in seasonal anomalies that indicates that the return in January tends to be higher than the return in other months. Laksmana and Dewi (2018) stated that January effect occurred on the IDX in the period February 2017 to January 2018. This phenomenon conjectures that the high return in January (especially on the days at the beginning of the month) is the tax-selling hypothesis. At the end of the year, many investment advisors advise investors to sell losses before the end of the year and buy the same securities at the beginning of the following year (Tandelilin, 2017: 235). At the end of the year investors and fund managers tend to sell their shares to secure funds or realize capital gains and reduce their tax burden. Meanwhile, at the beginning of the year, investors and fund managers will return to the market with funds, optimism, and an analysis of their latest outlook. This leads stock prices at the beginning of the year tend to increase or be positive. January effect occurs when there is a difference between the average stock return in January and the average return of other monthly stocks where the average stock return in January is most positive compared to the average return of other months of shares. By the description, the fifth hypothesis that can be formulated is:

H5: There is a difference between the average stock return in January and the average return in other months.

METHOD

This research is an empirical study on trading day, trading month, and daily stock return that was included in the IDX80 listed in the period February 1, 2019 to January 31, 2020 on the IDX. This study is a comparative research referring to a study that compares the presence of one or more variables to two different samples or those at different times (Sugiyono, 2017:

36). In this study, the comparative method aims to find out the difference in stock returns on each trading day and each trading month. The variables in this study are classified as a single variable. The single variables studied are daily stock returns and monthly stock returns.

The population of this study is companies included in the IDX80 index on the IDX during the observation period of February 1, 2019 – January 31, 2020. The sample companies selected with purposive sampling techniques are those consistently listed in IDX80 and actively traded stocks on the IDX during the observation period. Documentation was to collect data from IDX (www.IDX.co.id) sites and https://id.investing.com sites as the sources.

Difference tests were aimed to determine whether there is a difference between two or more data samples using non-parametric statistical methods (Kruskal Wallis test and Wilcoxon Sum Rank Test/Mann Whitney U Test*)* if the assumption of normality is not met. The steps in analyzing the data are as follows:

1. Collect data in the form of daily stock prices and monthly stock prices at the closing price
2. Calculate daily and monthly stock returns during the observation period. Stock return based on the stock price at closing is calculated using the following formula (Hartono, 2017:284):

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$$

R_{it} = *Actual return of* shares i on the day/month t

P_{it} = Stock price i on the day/month t

P_{it-1} = Stock price i on day/month t-1

3. Calculate the average daily and monthly stock return with the following formula:

$$\bar{R} = \frac{\sum R_1 + R_2 + R_3 + \cdots + R_n}{n}$$

n = Number of samples

4. Perform a data normality test

Data normality test was to determine the distribution of data in this study using the One-Sample Kolmogorov-Smirnov Test. Data is categorized as a normal distribution if it produces an asymptotic significance value > α = 5%.

5. Perform descriptive analysis

According to Ghozali (2013: 9), descriptive statistics provide an overview or description of data seen from the average value (mean), standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness (distribution). In this study, the description of the data was seen from average values, standard deviation, maximum and minimum.

6. Conduct hypothesis test

Of the 5 hypotheses, H1 and H4 were tested using the Kruskal Wallis test and H2, H3, and H5 were tested using the Wilcoxon Rank Sum Test/Mann Whitney U Test.

Kruskal Wallis Test

H_{01} : There is no difference in the average daily stock return in five days of stock trading ($\mu_{Monday} = \mu_{Tuesday} = \mu_{Wednesday} = \mu_{Thursday} = \mu_{Friday}$)

H_{A1} : There is a difference in the average daily stock return in five days of stock trading (At least $\mu_i \neq \mu_h$ for $i \neq j$)

H_{04} : There is no difference in the average monthly stock return in 12 months of stock trading ($\mu_{January} = \mu_{February} = \mu_{March} = \mu_{April} = \mu_{May} = \mu_{June} = \mu_{July} = \mu_{August} = \mu_{September} = \mu_{October} = \mu_{November} = \mu_{December}$)

H_{A4} : There is a difference in the average return of monthly shares in 12 months of stock trading (There is at least one pair $\mu_i \neq \mu_j$ for $i \neq j$)

The criteria for hypothesis testing with the Kruskal Wallis method are:

H_{01} is rejected if the p. value (sig) result < 5% or X^2 calculated ≥ X^2 table

H_{01} is accepted if the p. value (sig) result ≥ 5% or X^2 calculated < X^2 table

Wilcoxon Rank Sum Test/Mann Whitney U Test

H_{02} : There is no difference between Monday's average stock return and the average return of other day's shares

H_{A2} : There is a difference between Monday's average stock return and the average return of other days' shares.

H_{03} : There is no difference between Friday's average stock return and the average return of other days' shares.

H_{A3} : There is a difference between Friday's average stock return and the average return of other days' shares.

H_{05} : There is no difference between January's average stock return and the average stock return of the other month.

H_{A5} : There is a difference between the average stock return in January and the average return of other monthly stocks.

The criteria for hypothesis testing with *the Wilcoxon Sum Rank Test/Mann Whitney U Test* method are:

H_{02} is rejected if the *p. value (sig)* result < 5%

H_{02} is accepted if the *p. value (sig)* result ≥ 5%

RESULTS AND DISCUSSIONS

Table 1 shows that the value of sig. K-S test is 0.00 < 0.05. It can thus be concluded that daily stock return data and monthly stock returns are not distributed normally. Therefore, the statistical method for testing the hypothesis used was non-parametric statistical method, Kruskal Wallis.

Table 1. One-Sample Kolmogorov-Smirnov Test Results

No.	Data	Asymp. Sig. (2-tailed)	Result
1	Daily Stock Return	0,000	Data is not distributed normally
2	Monthly Stock Return	0,000	Data is not distributed normally

Average Daily Stock Return

Based on the value of standard deviation presented in table 2, it is apparent that the largest standard deviation occurred on Monday, which was 0.026859197. This indicates that the average return on Monday has the highest risk compared to the other trading days. This information shows that Monday has the highest level of trading risk for investors. While the lowest standard deviation occurred on Wednesday at 0.022860424 which means the risk on Wednesday is the least compared to that of the other days. These results show that Wednesday has the least level of trading risk for investors.

Table 2. Average Daily Stock Return

	N	*Mean*	*Std. Deviation*	*Minimum*	*Maximum*
Monday	3570	-.00245185	.026859197	-.250000	.191900
Tuesday	3360	.00184949	.024492517	-.221800	.254700
Wednesday	3220	.00003609	.022860424	-.158900	.158800
Thursday	3430	-.00114239	.025810716	-.220700	.211000
Friday	3570	-.00088678	.023774329	-.141900	.141500
Total	17150	-.00055433	.024871943	-.250000	.254700

The difference in the average daily stock return as seen in figure 1 indicates the possibility of a day of the week effect. The most negative daily stock return average occurred on Monday and this indicates the possibility of a Monday effect. However, the highest average positive return occurred on Tuesday and not on Friday. This indicates the possibility of no weekend effect.

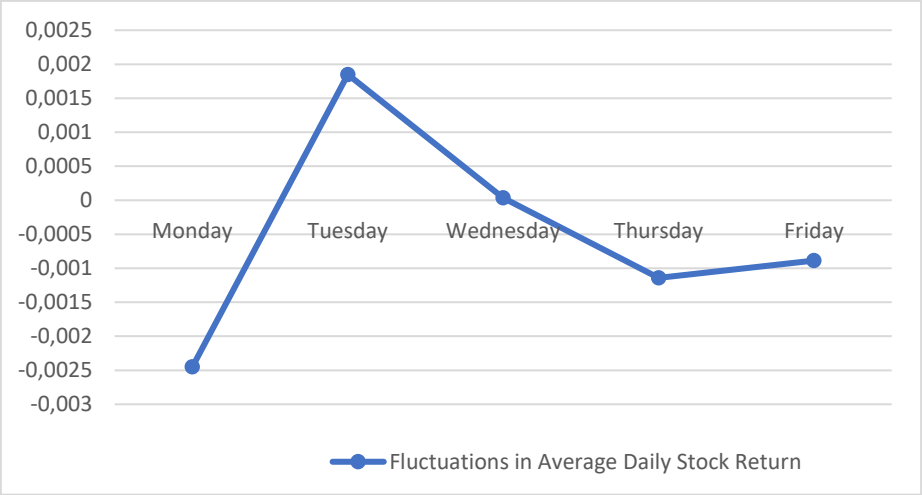

Figure 1. Fluctuations in Average Daily Stock Return

Average Monthly Stock Return

The largest standard deviation on average monthly stock return presented in table 3 occurred in August amounted 0.132444593. This indicates that the average stock return in August has the highest risk compared to those in other trading months and has the highest level of trading risk for investors. Meanwhile, the lowest standard deviation (0.070377392) occurred in October which means the risk in October is the least compared to that of other months. The information shows that October has the least level of trading risk for investors.

Table 3. Average Monthly Stock Return

	N	*Mean*	*Std. Deviation*	*Minimum*	*Maximum*
January	70	-.09730857	.085842182	-.317600	.150500
February	70	-.01541571	.123180350	-.235500	.512600
March	70	-.01666286	.101162056	-.288700	.210100
April	70	.00584143	.090252320	-.196400	.253300
May	70	-.06349429	.085420311	-.227300	.212800
June	70	.04915857	.105743103	-.129600	.634000
July	70	.01911000	.092299593	-.202700	.322100
August	70	-.03507429	.132444593	-.261900	.422600
September	70	-.01411857	.073613998	-.246100	.177400
October	70	.02148429	.070377392	-.106900	.213100
November	70	-.06868286	.106411508	-.333300	.431600
December	70	.07564286	.094699036	-.245200	.339600
Total	840	-.01162667	.108847750	-.333300	.634000

The difference of the average return of monthly stocks indicates the possibility of a month of the year effect. In January the average monthly stock return was the most negative compared to those of the average stock return of other months indicating the possibility of January effect. The January effect occurs when the average stock return in January is the most positive compared to the average return of other monthly stocks.

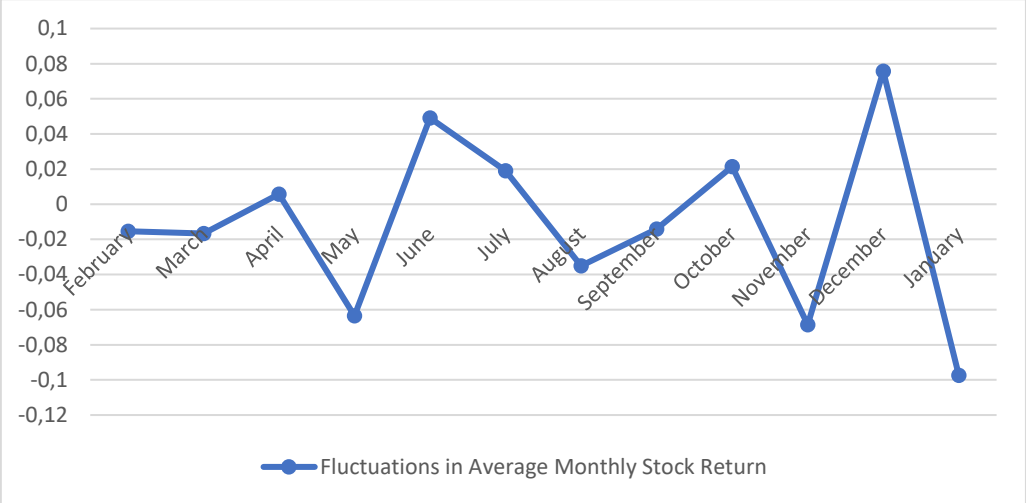

Figure 2. Fluctuations in Average Monthly Stock Return

Hypothesis Testing Results

Hypothesis 1: Day of the week effect

Based on the results of the Kruskal Wallis test in table 5, it is known that the value of Asymp. Sig is 0.000 < 0.05. Thus, it can be concluded that H_{01} is rejected and H_{A1} is accepted. The analysis of data shows that the p value (sig) < 5%, then H_{01} is rejected or H_{A1} is accepted. Therefore, it can be concluded that there is a difference between the average return of shares in five days of stock trading and this indicates a day of the week effect.

Table 4. Day of the Week Effect Test Results

	Trading Day	N	Mean Rank
Return	Monday	3570	8154.75
	Tuesday	3360	9135.14
	Wednesday	3220	8663.69
	Thursday	3430	8462.43
	Friday	3570	8498.63
	Total	17150	

Table 5. Kruskal Wallis Test Results

	Return
Chi-Square	72.474
df	4
Asymp. Sig.	.000

Hypothesis 2: Monday Effect

Based on table 6, the difference in average daily stock returns significantly occurs when the trading day is Monday compared to Tuesday, Wednesday, Thursday, and Friday. All Monday trading day pairs have an Asymp. Sig value of < 5% and thus H_{02} is rejected and H_{A2} is accepted. This can also be seen in table 2 showing that Monday has a lower average return (-0.00245185) compared to the average return on Tuesday, Wednesday, Thursday, and Friday.

Table 6. Wilcoxon Rank Sum Test/Mann Whitney U Test

Trading Day Pairs	*Z-test*	*Sig (2-tailed)*	Hypothesis
Monday – Tuesday	-8,054	0,000	Rejected
Monday – Wednesday	-4,324	0,000	Rejected
Monday – Thursday	-2,603	0,009	Rejected
Monday – Friday	-3,028	0,002	Rejected

Based on the results of this data analysis, it is known that the p. value (sig) < 5% and thus H_{02} is rejected or H_{A2} is accepted. It can be interpreted that there is a difference between the average return of shares on Monday and on other days. Thus it can be concluded that there is a Monday effect on stock trading in the IDX80 index on the IDX because there is a difference

in the average return of shares between Monday and other days, and the average stock return on Monday is the most negative compared to the average return of other days of the stock.

Hypothesis 3: *Weekend Effect*

Table 7 shows that there is a significant difference in the average daily stock return only when the trading day is Friday compared to Monday and Tuesday. These results are part of the Monday effect test that obtained significant results. In contrast, the pair of Friday trading days with Wednesday and Thursday has an Asymp. Sig value of > 5% which can be concluded that H_{03} is accepted and H_{A3} is rejected.

Table 7. Wilcoxon Rank Sum Test/Mann Whitney U Test

Trading Day Pairs	*Z-test*	*Sig (2-ailed)*	Hypothesis
Friday – Monday	-3,028	0,002	Rejected
Friday – Tuesday	-5,453	0,000	Rejected
Friday – Wednesday	-1,383	0,167	Accepted
Friday – Thursday	-0,321	0,749	Accepted

Based on the analysis of the data, it is known that the p value (sig) > 5%, then H_{03} is accepted or H_{A3} is rejected. It can then be concluded that there is no difference between the average return of shares on Friday and the average return of shares the other day. This can be interpreted that there is no weekend effect on stock trading in IDX80 because there is no difference in the average return of the stock between Friday and the other days and the average return of Friday shares are negative and not the most positive when compared to the average return of other days' shares.

Hypothesis 4: Month of the Year Effect

Based on the results of the Kruskal Wallis test presented in table 9, it is known that the value of Asymp. Sig is 0.000 < 0.05. Thus, it can be concluded that H_{04} is rejected and H_{A4} is

accepted. It can thus be interpreted that there is a difference in the average monthly stock return in 12 months of stock trading and this indicates that there is a month of the year effect.

Table 8. The Month of the Year Effect Test Results

	Trading Month	N	Mean Rank
Return	January	70	221.56
	February	70	397.23
	March	70	418.60
	April	70	470.51
	May	70	292.33
	June	70	564.86
	July	70	494.34
	August	70	341.28
	September	70	421.86
	October	70	517.06
	November	70	275.54
	December	70	630.83
	Total	840	

Table 9. Kruskal Wallis Test Results

	Return
Chi-Square	197.614
df	11
Asymp. Sig.	.000

Hypothesis 5: January Effect

Table 10 shows there is a significant difference in return on the January trading month compared to that on the other 10 months, except November. The majority of January couples have Asymp. Sig < 5% so this can be concluded that H_{05} is rejected and H_{A5} is accepted. But this significant difference suggests that January has a lower return compared to other monthly returns.

Table 10. Wilcoxon Rank Sum Test/Mann Whitney U Test

Trading Month Pair	*Z-test*	*Sig (2-tailed)*	Hypothesis
January – February	-4,236	0,000	Rejected
January – March	-4,811	0,000	Rejected
January – April	-6,162	0,000	Rejected
January – May	-2,015	0,044	Rejected
January – June	-7,993	0,000	Rejected
January – July	-6,741	0,000	Rejected
January – August	-2,676	0,007	Rejected
January – September	-5,664	0,000	Rejected
January – October	-7,514	0,000	Rejected
January – November	-1,621	0,105	Accepted
January – December	-8,602	0,000	Rejected

Based on data analysis, it is known that p value (sig) < 5%. Thus, H_{05} is rejected or H_{A5} is accepted. It can be concluded that there is a difference between the average stock return in January and the other month's shares. The conclusion is that there is no January effect on stock trading in the IDX80 index on the IDX because the average stock return in January is not the most positive when compared to the other months even though there is a difference between the average stock return in January and the other months of stocks.

DISCUSSION

Day of the Week Effect

Based on the results of the analysis, it is known that there is a day of the week effect on the IDX, especially the group of stocks incorporated in the IDX80. The existence of this daily anomaly indicates that the Indonesian capital market represented by the stock group incorporated in IDX80 has not been fully efficient in a weak form. According to behavioral finance theory, stock price movements are not solely determined by the information available in the market but also other factors, such as investor psychology (Asri, 2013: 203). Humans make investment decisions in responding to various information obtained and thus investor behavior is not always rational in responding to the existing information. Day of the week effect

can arise due to the tendency of investors to buy or sell stocks on a certain day, where investors' emotional feelings towards that particular day can affect investor behavior in making investment decisions (Tandelilin, 2017: 228). Therefore, it is suspected that psychological aspects can make investors pessimistic or optimistic on certain trading days that allow differences in returns generated on different trading days.

Day of the week effect is one of the predictability tests of return and is to test the hypothesis of an efficient market in weak form (Tandelilin, 2017: 231). The existence of a day of the week effect in this study shows that the Indonesian capital market represented by the stock group in the IDX80 index has not been fully efficient in a weak form. However, this finding does not directly refute the testing of efficient market hypotheses because further testing is needed related to efficient market hypotheses, such as using run tests or others. In this study, the phenomenon of the day of the week effect is shown by the statistical difference in daily average returns for several pairs of days in a week and the existence of statistically equal stock returns for certain day pairs. This phenomenon causes investors to make speculations because stock price movements have a pattern at a certain moment (Trisnadi and Sedana, 2016: 3796). The conditions under which investors can make this presumption indicate that the Indonesian capital market is inefficient.

In a week there is a lot of information in the market that drives investors to act and make decisions. However, not all information available in the market can be directly applied and understood easily by investors due to limited ability (bounded rationality) of an investor in processing information to arrive at decision on whether the information is profitable or not, and then decide on a sell or buy stock. The difference in processing the information can direct investors to sell or buy at different times. As a result, there is difference in stock returns in a week. The results of this study are in line with those conducted by Suryandari and Wirawan

(2018), Kurniawan and Purbawangsa (2018), Pratiwi (2017), and Rahmawati (2016) state that there was phenomenon of day of the week effect on the IDX in different periods.

Monday Effect

This research found that there is existence of a Monday effect in the Indonesian capital market, especially in the IDX80 stock group. Referring to the cause of the day of the week effect, Monday effect anomalies is possibly due to psychological aspects. The investors consider Monday as the beginning day of work that they do not like and they tend to sell shares on Mondays. Dyl (1988) in Budileksmana and Hambayanti (2006:199) revealed that unfavorable information conveyed to the capital market after closed trading on Friday (weekend) is likely the cause of the high sell-off on Monday. Another reason is that Monday is the initial day of active exchanges. Many investors tend to review various relevant information and are trying to formulate an initial strategy for trading transaction activities. This results in a delay in the stock buying action on Monday and impact the decline in stock prices on Monday. According to the law of stock trading, if the offer is high stock then the stock price will fall. This study found that the average return of shares on Monday was -0.00245185 and this was the lowest average return in a week during the observation period. The results of this study are in line with the research of Suryandari and Wirawan (2018) and Rahmawati (2016) concluding that a Monday effect on the IDX were the lowest and negative average returns occurred on Monday.

Weekend Effect

The result showed that weekend effect did not occur in the Indonesian capital market, especially in the IDX80 stock group. The result also showed that the average return on Friday

was negative. However, this negative value is considered as a correction from the previous day (Thursday). It is thus suspected that in the study period there was no weekend effect due to several things. First, investors tend to be aggressive in which they do buy action when the price drops and sell when the price arises. The evidence of this is the average return on Thursday that is the second-lowest negative after Monday and investors bought stocks on Thursday resulting in an average return the day after (Friday) that is greater than that of Thursday even though if the value is negative. Second, it is also possible that companies tend to release bad news at the end of the week and make the market react directly as indicated by negative stock average returns on Thursdays and Fridays. The market reaction continued to happen until Monday. Third, the average negative stock return on Friday can be caused by a bad Friday. Abraham and Ikenberry (1994) in Cahyaningdyah (2017: 9) found that information announced in the previous trading session (weekend) had an impact on the average return on a negative Monday. If Friday return is negative, nearly 80% of the next Monday return is negative. The results of this study are in line with Rahmawati's research (2016) stated that there is no weekend effect on stock trading on the IDX.

Month of the Year Effect

The month of the year effect occurs in the Indonesian capital market, especially in the IDX80 stock group. The existence of a significant difference in the average return of shares is suspected to be caused by the number of situations affecting the stock price, such as political, economic, cultural, and holiday which occur in different trading months. Investors' optimism and pessimism about the situation encourage them to make investment decisions that differentiate the average monthly stock return in 12 months of trading. Difference situation in each month in a year causes a month of the year effect. The results showed that there were

significant average positive return in the trading months in particularly April, June, July, October, and December. This is due to a positive signal during the election in April, the Eid al-Fitr in June, and other relevant events. Investors have their sentiments for candidates who run for President and Vice President during the 2019 election. The average stock return in April which was positively corrected indicates that investors were optimistic about the results of the election. The average stock return was then corrected negatively in January 2020. The start of the year had brought rejuvenated optimism to investors hoping to capitalize on the positive investment climate due to the January effect. Nevertheless, it is corrected negatively which is most likely caused by investors' pessimistic due to the emergence of the Corona virus outbreak. These situations drive a significant difference in the average monthly stock return in 12 trading months and as a result there is a month of the year effect. The results of this study are in line with Suryandari and Wirawan's research (2018) concluding the month of the year effect occurred on the IDX where the average stock return is positive in April. The results also support the research of Laksmana and Dewi (2018) that found the month of the year effect occured on the IDX that resulted a January effect in the period February 2017 - January 2018.

January Effect

The analysis results in no January effect that causes the most positive return in January compared to other months in the Indonesian capital market, especially the IDX80 stock group. The inexistence of the January effect in 2020 was caused by national and international events that distressed investors' decisions. In other words, the January effect is obscured or lost its existence due to the event that suppresses the stock price.

The results of the analysis show a significant difference between the average return of stocks in January and other months. There was also a significant difference between the average

daily stock return and the average monthly stock return and this indicates a market anomaly in the observation period. It can thus be concluded that there was a market anomaly in January during the observation period. However, the market anomaly in January is not the January effect since the average stock return in January was negative and even the lowest one (-0.09730857) compared to that of the other months. This certainly does not meet the criteria for the occurrence of the January effect in which the average stock return in January is required to be the most positive compared to that of the other months. Even though there was no January effect, market anomalies or deviations still occur in January. It is thus stated that there is no January effect but a market anomaly that is not a January effect (characterized by a negative average stock return). The reason relates to investor's responses or actions to an event that is suspected to affect the stock price. The first response is a profit-taking action in December to increase the sell-off. Based on the data of seasonality chart return released by Bloomberg, there was a very significant increase in stock prices in December which made investors to do profit-taking action (Wijaya, 2020). The second one is a disturbance of corona virus outbreak in early 2020. The outbreak was first announced by the World Health Organization (WHO) on January 9, 2020 (Teknokompas, 2020). The disturbance impacted investors' concerns that cause in the weak stock price on the IDX represented by JCI. The coronavirus outbreak is still a negative sentiment for capital market investors in the country, even JCI was again closed down 55.44 points (0.91%) to the level of 6,057.59 on Thursday, January 30, 2020 (Harian Nasional, 2020). Third, there is a case of the Jiwasraya default announced by BPK on January 8, 2020 (CNN Indonesia, 2020) caused by investments mismanagement in the company such as spinning funds on underperforming stocks indicated to be fried stocks. As a result, the Attorney General's Office blocked 800 securities accounts and their affiliates which caused investor fears in investing and a quiet average stock transaction in January 2020. The average daily

transaction in January 2020 was only 7.5 billion units of shares with a transaction value of Rp 6.32 trillion. Meanwhile, in January 2019, the average daily transaction reached 13.03 billion units of shares with a transaction value of Rp 10.14 trillion (CNN Indonesia, 2020). As a result, investors tend to withdraw from the stock market that make the average stock return in January 2020 corrected negatively.

CONCLUSION

Based on the results, it can be concluded that in the observation period of February 1, 2019 – January 31, 2020 the following happened in the IDX80 index on the IDX80 index on the IDX:

1. There is a phenomenon of the day of the week effect on stock trading
2. There was a Monday effect on stock trading
3. There is no weekend effect on stock trading
4. There is a month of the year effect phenomenon on stock trading
5. There is no January effect on stock trading.

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