Monday Effect and Weekend Effect Testing on IDX-30 Index on Indonesia Stock Exchange Period Before and During Covid-19 Pandemic

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Abstract- This study aims to find out the effect of the Monday effect and weekend effect on the IDX-30 index in the Indonesia stock exchange period before and during pandemic covid-19. This type of research is a quantitative research using comparative methods. The data collection method is done using a purposive sampling method, a sampling technique with certain criteria. The population in this study is companies that are included in the IDX-30 index on the Indonesia Stock Exchange with an observation period of 1 month (4 weeks) before the Covid-19 pandemic and one month (4 weeks) during the Covid-19 pandemic. Sampling used in this study, i.e., selected by purposive sampling method. Data analysis techniques performed are Descriptive Statistical analysis, Normality Test, One-Sample t-Test Test, T-Test Test, and Independent Sample T-Test. The results showed that: (1) There was a Monday Effect on companies that were included in the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic; (2) Monday Effect occurs on companies listed on the IDX-30 index on Indonesia Stock Exchange during the covid-19 pandemic; (3) There is a significant difference in abnormal returns in the anomaly of Monday effect of companies listed on the IDX-30 index in the observation period; (4) There is a Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic; (5) There is a Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange during the covid-19 pandemic; (6) there are differences but not significant for weekend effect market anomalies in the period before Covid-19 and during Covid-19 for idx30 index in IDX.

Index Terms- Monday effect; weekend effect; Indonesia stock exchange

I. INTRODUCTION

The latest developments, the existence of capital markets in a country, have a significant impact on the modern economy because it becomes one of the financial centers. The capital market has an important role in carrying out its functions, namely as a means for companies to obtain funds from investors and as a means for the public to invest in financial instruments such as stocks, bonds, mutual funds, and others. The capital market in Indonesia is known as the Indonesia Stock Exchange (IDX), located in Jakarta, and today, more and more companies have been listed.

Share Return is one of the factors seen by investors who will invest in a company. Return of shares is an income obtained by shareholders as a result of their investment in a particular company, while according to Hartono (2016) "return is the result obtained from investment or the level of profit enjoyed by investors for an investment made". So, the return of shares is the result of the return obtained by the investor for his investment in a company.

In the capital market, there are many investors who compete at all times for maximum profit by utilizing and analyzing various information available. Therefore, the price of securities in the capital market should have reflected the results of analysis from investors on various information available. Investing in stocks requires accurate information so that investors do not get caught up in adverse conditions because information on the stock exchange is a type of investment with relatively high risk, despite promising relatively large profits (Sunariyah, 2013).

The concept of an efficient market on the stock exchange was first presented by Fama (1970), which states that a market is said to be efficient if no one, both individual investors and institutional investors, will obtain abnormal returns after adjusting to risk using existing trading strategies continuously. The prices formed in the market reflect the information available, and in the efficient market, the prices of assets or securities quickly and completely reflect the information available about the asset or security (Gumanti, 2011).

Information absorbed in the capital market will form a new balance price in response to existing information, where all information in the past, current information, and also information in the future has been reflected through the share price traded without lag, and this concept is known as the concept of efficient capital market (Diahlestari &Artini, 2019). The concept of an efficient capital market is one of the indicators in determining the quality of the capital market. Suppose the market reacts quickly and accurately to the information that enters the market and moves to form a new balance price of available information. In that case, the market is said to be efficient. The more efficient a capital market is, the faster new information is reflected in the price of securities (Trisnadi &Sedana, 2016).

According to Fama (1970), three main forms of the efficient market based on information, namely (1) weak form information, namely a market whose prices of securities fully reflect past information, (2) information now being published

(semistrong form) which is a market whose securities prices fully reflect all the information published, and (3) private information (strong form) that is a market whose prices of securities are fully polluting information including private information (Hartono, 2016). The concept of an efficient market is still an interesting debate in the field of finance, many researchers try to prove the theory of an efficient market, but in fact, researchers find there is a market anomaly that defies the theory. Market anomalies appear in all forms of efficient markets, both weak, semi-strong, and strong (Gumati, 2011). Tandelilin (2010) states anomalies are unanticipated deviant events or events and offers investors the opportunity to get an abnormal return. Market anomalies are techniques and strategies that seem to contradict the concept of efficient markets (Jones, 2014:311). In financial theory, four kinds of market anomalies are known events anomalies or events (event anomalies), seasonal anomalies (seasonal anomalies), company anomalies (firm anomalies), and accounting anomalies (accounting anomalies) (Gumanti, 2011).

Anomalies that are still being discussed by foreign and domestic researchers on seasonal anomalies to obtain abnormal returns predicted based on past price patterns are an anomaly day of the week effect. This shows that the average daily return is not the same for each day of the week, where at the beginning of the week is lower than the end of the week, thus affecting the pattern of return on stocks (Alteza, 2007). Part of the anomaly of the day of the week effect is the Monday effect which states that Monday tends to produce a negative return because it is the first day of work and the issuer announces bad news on the last day of trading, while the weekend effect that results in the return of shares on Friday will be higher than other trading days. Research related to the anomaly was first conducted by Fields (1931), followed by Cross (1973), French (1980), Gibson and Hess (1981), Keim and Stambaugh (1984), Rogalski (1984), Smirlock and Starks (1986), Olson et al. (2015), Zhang et al. (2016), Kra et al. (2019) also found that stock returns on Monday tend to be negative and stock returns on Friday tend to be positive.

Different results obtained from research conducted by Robins and Smith (2016) claim that the weekend effect has disappeared since the market became more efficient in developed markets. Izadi &Noman (2019) stated that the absence of weekend effect in most industrial portfolios in the United States. Olaley (2018), on the stock market in Nairobi, found a positive return on Monday and supported the weekend effect. Research in Indonesia that supports the phenomenon of the Monday effect and weekend effect on the LQ-45 index on the Indonesia Stock Exchange, among others, was conducted by Ramadhani (2016), Suryandari &Wirawan (2018), and Iswandi &Hafni (2018). Different results obtained from research on the LQ-45 index, namely Laksmana & Dewi (2018) and Ferita (2018), state no such anomalies. The same result was obtained by Kurniawan &Purbawangsa (2018) in sectoral stocks in IDX and found no market anomalies and found that the smallest return on Tuesday and the largest return on Wednesday.

Monday effect and weekend effect market anomalies remain interesting to be traced further because of the varied results of previous research and by paying attention to the current development of the world economy as a result of the spread of the Covid-19 virus. Starting from the Chinese city of Wuhan at the end of 2019 that attacks the respiratory system and causes death, the Covid-19 virus causes health problems and impacts socioeconomic. Furthermore, on January 30, 2020, the World Health Organization (WHO) announced a global emergency situation related to the coronavirus considering the largest spike in death rates in a day in China and its spread to other countries. This has a domino effect on the economy, including affecting capital markets around the world in early 2020.

The most pressured exchange indexes were the FTSE 100 of the London Stock Exchange, which reached 12.49 percent, followed by JCI in Indonesia at 12.18 percent, and the Nikkei index which was depressed quite deeply by 9.15 percent in the first two months of 2020. Furthermore, on March 2, 2020, the Government of Indonesia announced the first positive case of Covid-19 identified as many as 2 (two) people. After the announcement had a big impact on various aspects of people's lives. In addition, the Composite Stock Price Index (JCI) closed down 91 point at a level of Rp5,361 which continues to experience negative sentiment since the beginning of 2020 due to the spread of the Covid-19 virus that is increasingly widespread. The establishment of Covid-19 further reinforced this as a global pandemic by the World Health Organization (WHO). The Indonesian capital market then issued a policy through the Decree of the Board of Directors of PT Bursa Efek Indonesia Number: Kep-00025/BEI/03-2020 dated March 12, 2020, namely the policy of changing auto rejection restrictions to stop trading on stocks that decreased by 7% per day to reduce pressure on the Indonesian capital market.

Related to the Covid-19 pandemic, several studies have been conducted that show the impact of the spread of the virus, including research conducted by Sansa (2020) on the Shanghai Stock Exchange and New York Dow Jones period 1 March-25 March 2020, which showed a significant decrease in response to the Covid-19 pandemic. Beret et al. (2020) state that Covid-19 has a significant effect on financial markets in general, including the decline in stocks, oil, equities, and bonds worldwide and in detail on banking. Furthermore, domestic research by Wicaksono and Adyaksa (2020) states that the spread of Covid-19 has an impact on global and national financial markets. Khoiriah et al. (2020) there is an abnormal effect of the return of LQ-45 index before and during the Covid-19 outbreak, as well as Rifai et al. (2020) research revealing the difference in the Composite Stock Price Index (IHSG) before and after the Covid-19 pandemic.

There are different research results related to the spread of Covid-19 conducted by Susanti et al. (2020), which did not find any abnormal returns on the Jakarta Islamic Index (JII) stock index in the pre and post-PSBB Covid-19 period. Siahaya and Litamahuputty (2021) stated that there was no difference in stock returns before and after the announcement of PSBB in the state-owned banking sector listed on the Indonesia Stock Exchange (IDX).

Based on research gaps or different research results on market anomalies, namely day of the week effect and in line with the announcement of the President of the Republic of Indonesia that Covid-19 has entered Indonesia and was identified on 2 (two) Indonesian citizens on March 2, 2020, so it is necessary to retest market anomalies on the Indonesia Stock Exchange, especially before and during the Covid-19 pandemic. This study uses the IDX-30 index, which is the 30 (thirty) best stock issuers after

setting aside 15 (fifteen) issuers from the LQ-45 index and can be said to be a fairly sensitive index to market information (www.idx.co.id). In addition, the development of the capital market is accompanied by the development of index functions that are not only an indicator of stock price movement but can also be used as the underlying of an investment product such as ETFs, mutual funds, and other derivative products such as options or futures (Yunita &Rahyuda, 2019). Therefore, the authors conducted a study titled "Testing Monday Effect and Weekend Effect on IDX-30 Index on The Indonesia Stock Exchange Period Before and During the Covid-19 Pandemic".

II. METHOD

Types of Research

This type of research is quantitative research using comparative methods. This study measures the monday effect and weekend effect testing on the IDX-30 index on the Indonesia Stock Exchange period before and during the Covid-19 pandemic.

Data Collection Methods

The data collection method in this study is purposive sampling method, a sampling technique with certain criteria. Furthermore, secondary data observation and analysis are carried out by downloading 30 companies listed in the IDX30 index through the Indonesia Stock Exchange (www.idx.co.id) website and www.investing.com the period February 2020-March 2020.

Population and Research Samples

The population in this study is companies that are included in the IDX-30 index on the Indonesia Stock Exchange with an observation period of 1 month (4 weeks) before the Covid-19 pandemic and one month (4 weeks) during the Covid-19 pandemic. The sampling used in this study was chosen by the purposive sampling method. The purposive sampling method is a technique of determining samples with certain criteria. The sample selection criteria in this study are based on the criteria: (1) Companies listed as IDX-30 index on the Indonesia Stock Exchange in the observation period of 1 month (4 weeks) before the covid-19 pandemic and one month (4 weeks) during the Covid-19 pandemic; (2) The Company actively trades on the Indonesia Stock Exchange during the observation period of 1 month (4 weeks) before the Covid-19 pandemic and one month (4 weeks) during the Covid-19 pandemic. Based on these criteria, the number of samples used in this study is:

Table 1. Research Sampling

No	criterion	Count
1.	Companies listed as IDX-30 index on Indonesia Stock Exchange during the period February 2020 – March 2020	30
2.	The Company actively trades on the Indonesia Stock Exchange and is included in the IDX-30 index in a row during the period February 2020 – March 2020	30
	Research samples	30

Types and Data Sources

This study uses secondary data that is a source that does not directly provide data to data collectors, for example, through others or through documents (Sugiyono, 2017). In this type of data, based on the type can be grouped into quantitative data and qualitative data, namely: (1) Quantitative Data, is data in the form of a collection of information and the form of numbers that can be calculated. In this study, quantitative data is the closing price of IDX30 index stocks on the Indonesia Stock Exchange for the period February 2020 – April 2020 obtained from www.investing.com and www.idx.co.id sources; (2) Qualitative data is data in the form of a collection of information but is not expressed in the form of numbers so that it cannot be calculated. This study, which includes qualitative data, is the results of previous research published through journals and books (according to the results of experts' research).

Data Collection Techniques

This research uses secondary data so that data collection techniques are documented. According to Sugiyono (2017), documentation is a way used to obtain data and information in the form of books, archives, documents, writing numbers and images in the form of reports and information that can support research. Secondary data obtained through documentation is the company's share price that is used as a research sample.

Data Analysis Techniques

Data analysis is a process of data preparation and processing, while data analysis techniques are techniques used to conclude the results of research. Data analysis techniques performed are Descriptive Statistical analysis, Normality Test, One-Sample t-Test Test, T-Test Test, and Independent Sample T-Test. Independent Sample t-test to show whether two unrelated samples have different average values. In this study, the data used in the form of abnormal daily stock returns calculated on the basis of the closing price on each trading day of the period before and during the Covid-19 pandemic, using the significance level of $\alpha = 5\%$, and the testing criteria that the hypothesis is accepted if the significance value of < 0.05 (5%), meaning there is an abnormal difference in return between the comparison of 30 days before and 30 days during the Covid-19 pandemic. Hypotheses are rejected if the significance value of > 0.05 (5%) means no abnormal difference in return between the comparison 30 days before and during the Covid-1

III. RESULT AND DISCUSSION

Descriptive Statistical Analysis

Descriptive statistical analysis is used in this study to provide an overview or description of the research variables, namely abnormal return on the day of observation, namely the Group Monday in the period before and during the announcement of Covid-19 and Friday group in the period before and when the announcement of Covid-19. Descriptive statistical analysis used among others, minimum value, maximum value, mean, middle value (median), and standard deviation of each variable as Table 2:

Table 2. Descriptive Statistical Analysis of Abnormal Research Variables Return Testing Monday Effect and Weekend Effect On IDX-30 Index period Before and During Covid-19

	N	Min	Max	Std. Deviation
AR_Senin_Before	120	-0,04860	0,02892	0,01840
AR_Senin_ moment	120	-0,14815	0,00544	0,03493
AR_Jumat_ Before	120	-0,07736	0,04913	0,02410
AR_Jumat_ moment	120	-0,12792	0,21807	0,06703
Valid N (listwise)	120			

In table 2, descriptive statistics show that the amount of data analyzed is 120, on the Group of Monday before Covid-19 the highest abnormal return at PT Kalbe Farma amounted to 0.002892 while the lowest abnormal return value of -0.04860 at PT Bank Mandiri Tbk. The average abnormal return of IDX30 Companies on the Indonesia Stock Exchange (IDX) in the group of Mondays before Covid-19 amounted to -0.01027 which showed that the average return obtained was more compared to the expected return or profit earned below normal with a standard deviation of 0.01840. This can be an indication that investors tend not to invest in the period of Monday before Covid-19 because it is still in the process of observation on performance indicators that support investor analysis in taking decided so that the capital market becomes inefficient and there is an anomaly in the Monday effect market.

In Monday's group when Covid-19 the highest abnormal return at PT Indocement Tunggal Prakarsa amounted to 0.00544 while the lowest abnormal return value was -0.04860 at PT Vale Indonesia. The average abnormal return of IDX30 companies on the Indonesia Stock Exchange (IDX) in the group on Monday during Covid-19 amounted to -0.06511, indicating that the average return obtained is smaller than the expected return or profit obtained below normal with a standard deviation of 0.03493. This can be an indication that investors tend not to invest in the period on Monday when Covid-19 due to information that the announcement has been identified the first patient in Indonesia as many as 2 (two) people, considering that at the beginning of the year, the Covid-19 outbreak has spread throughout the world and affects all aspects including the economy. Investors are still in the process of observing the development of information on the Covid-19 outbreak and waiting for policies to maintain the overall economy will then become supporting data in decision making so that the capital market becomes inefficient and there is an anomaly in the Monday market effect that is a negative return on Monday.

In the group on Friday before Covid-19, the highest abnormal return at PT Charoen Pokphand Indonesia amounted to 0.04913, while the lowest abnormal return was -0.07736 at PT Perusahaan Gas Negara. The average abnormal return of IDX30 companies on the Indonesia Stock Exchange (IDX) in the group of Friday before Covid-19 amounted to -0.00861, which indicates that the average return obtained is smaller than the expected return or profit obtained below normal with a standard deviation of 0.02410. This can be an indication that in the period of Friday before covid-19, investors tend not to make investment decisions and are still in the stage of waiting for information and policies in the face of the pandemic covid-19, considering the spread has spread to the world since the beginning of 2020 or

anomalous weekend effect market does not occur that is a positive return on Friday.

In Friday's group, when Covid-19 the highest abnormal return at PT Aneka Tambang amounted to 0.21807 while the lowest abnormal return value was -0.12792 at PT Astra Internasional. The average abnormal return of IDX30 companies on the Indonesia Stock Exchange (IDX) in the Group on Friday during Covid-19 amounted to 0.02007, indicating that the average return obtained is greater than the expected return or profit obtained above normal with a standard deviation of 0.06703. This may be an indication that in the period on Friday when covid-19, investors make investment decisions or stock purchases. Policies and strategic steps from the Government in an effort to deal with the Covid-19 pandemic are also one of the parameters in decision making by investors.

Normality Test

The research was tested first using a normality test that aims to see the distribution of data to be tested. The normality test in this study used One-Sample Kolmogorov-Smirnov with the hypothesis used in the test was H0: normally distributed variance data (sig. $> α = 0.05$) and H1: normal non-distributing variance data (sig. $< α = 0.05$). Furthermore, if the data is normally distributed followed by the Independent Sample T-Test testing method. The following are presented the results of the normality test:

Table 3. Kolmogorov-Smirnov One Sample Normality Test

	AR Monday Before Covid-19	AR Monday During Covid-19	AAR Friday, Before Covid-19	AAR Friday, Covid-19
N	120	120	120	120
Asymp. Sig. (2-tailed)	0,200	0,200	0,200	0,200

In Table 3, it can be seen that from the data of the group on Monday and Friday obtained the value of the significance of Asymp. Sig. (2-tailed) of 0.200 or greater than $α = 5\%$ so that the data used is declared normal and feasible to use statistical tests as data analysis techniques with one sample t-test method and independent sample t-test.

Statistical Test

This study proposes six research hypotheses. The hypothesis is tested with statistical testing tools, namely testing the Monday effect hypothesis before and during the covid-19 pandemic and testing the Weekend effect hypothesis before and during the covid-19 pandemic.

1) *Monday Effect Testing Before Covid-19 Pandemic*

The first hypothesis test to test the existence of Monday Effect on companies listed in the IDX30 index on the Indonesia Stock Exchange before the covid-19 pandemic was obtained as follows:

Table 4. One Sample t-test Monday Effect Test Results Before Covid-19

	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Before Monday	-6.113	119	.000	-.01027	-.0136	-.0069

Based on Table 4 shows the calculated t value of -6,113 with a significant rate of 0.000. The significance value is smaller than the α = 0.05, so H1 is accepted. In the period before the Covid-19 pandemic, there was an average negative return of -0.01027 every Monday and statistically different from zero. The test results showed that there was a Monday Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic.

2) Monday Effect Testing During the Covid-19 Pandemic

The second hypothesis test to test the existence of Monday Effect on companies listed on the IDX30 index on the Indonesia Stock Exchange during the covid-19 pandemic was in the period 2 March 2020-31 March 2020 using t-one sample test obtained the following results:

Table 5. One Sample t-test Monday Effect Test Results During Covid-19

	t	Sig. (2-tailed)	Mean Difference	Lower	Upper
Monday	-20.421	.000	-.06511	-.0714	-.0588

Based on Table 5 shows the calculated t value of -20,421 with a significance value of 0.000. The significance value is smaller than α = 0.05, so H2 is accepted. In the period during the Covid-19 pandemic, there was an average negative return of -0.06511 every Monday and statistically different from zero. The test results prove Monday effect on companies listed on idx-30 index on Indonesia Stock Exchange during the Covid-19 pandemic.

3) Monday Effect Testing Before and During the Covid-19 Pandemic

The third hypothesis of the study was tested with a different test of two average independent samples, using two groups that are independent (free) namely abnormal return in the group the Monday before Covid-19 and the monday group during Covid-19 so that there is no association between one group with the other group. The goal is to prove whether or not there is an abnormal difference in the average return of shares on Monday of companies listed on the IDX30 index in the period before and during the Covid-19 pandemic using mean-adjusted proxy models as shown in the following table:

Table 6. Independent Samples Test Results Monday Effect Before and During the Covid-19 Pandemic

		F	t	df	Sig. (2-tailed)	Mean Dif
AR Monday	Equal variances assumed	13.789	15.218	238	0.000	0.0548
	Equal variances not assumed		15.218	180.330	0.000	0.0545

Based on the test results using SPSS 24 program, the test results differed from the two independent sample averages in the table above, showing the t value at equal variances assumed (t-count) of 15,218, assuming and without the assumption of equal variance. The significance value of 0.000 is less than α = 0.05, so H3 is accepted. The average abnormal return in the period before the pandemic was -0.0103, statistically smaller than the

pandemic time of -0.0651. Thus, there is a significant difference in the average abnormal return of shares on Monday before the Covid-19 pandemic (February 2020) with the Monday when the Covid-19 pandemic (March 2020) took place in the IDX30 stock group on the Indonesia Stock Exchange during the research period.

4) Testing Weekend Effect Before Covid-19 Pandemic

The fourth research hypothesis (H4) is that there is a Weekend Effect on companies listed in the IDX30 index on the Indonesia Stock Exchange before the Covid-19 pandemic, namely in the period 1 February 2020-1 March 2020 using t one-sample test (one-sample t-test) obtained the following results:

Table 7. One Sample t-test Weekend Effect Test Results Before Covid-19

	Test Value = 0				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Before Friday	-3.912	119	.000	-.00861	-.0130	-.0042

Test results with one t-test sample test showed a calculated t value of -3,912 with a significance value of 0.000. The significance value is lower than the α = 0.05, so H4 is accepted. In the period before the Covid-19 pandemic, there was an average negative return of -0.00861 every Friday and statistically different from zero. The test results prove that there was no Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange before the Covid-19 pandemic.

5) Testing Weekend Effect During the Covid-19 Pandemic

The fifth research hypothesis is that there is a Weekend Effect on companies listed in the IDX30 index on the Indonesia Stock Exchange during the Covid-19 pandemic, namely in the period 3 March 2020 - 31 March 2020 using t-test one sample (one sample t-test) obtained the following results:

Table 8. One Sample t-test Weekend Effect Test Results During Covid-19

	Test Value = 0				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Friday	3.281	119	.001	.02007	.0080	.0322

H5 test results with one t-test sample test tool showed a calculated t value of 3,281 with a significance value of 0.001. The significance value is lower than α = 0.05, so H5 is accepted. In the period during the Covid-19 pandemic, the average abnormal return was 0.02007 every Friday and statistically different from zero. The test results prove that there is a Weekend Effect on companies listed in the IDX-30 index on the Indonesia Stock Exchange during the Covid-19 pandemic.

6) Testing Weekend Effect Before and During the Covid-19 Pandemic

The sixth hypothesis of the study was tested with a different test of two average independent samples, using two

groups that are independent (free), namely abnormal return in the group of Fridays before Covid-19 and Friday groups during Covid-19 so that there is no association between one group with the other group. It aims to prove the existence of abnormal return differences in the anomaly weekend effect companies listed on the IDX30 index in the period before and during the pandemic covid-19 using mean-adjusted proxy models as in the following table:

Table 9. Independent Samples Test Weekend Effect Results Before and During the Covid-19 Pandemic

		t	df	Sig.	Mean Difference
AR Friday	Equal variances assumed	-4.411	238	.000	-.02868
	Equal variances not assumed	-4.411	149.266	.000	-.02868

Based on the test results using SPSS 24 program, the test results differed two independent sample averages showed a calculated t value of -4,411 assuming and without the assumption of equal variance. The significance value of 0.000 is less than α = 0.05, so H6 is accepted. The average abnormal return in the period before the pandemic was -0.00861, statistically smaller than at the time of the pandemic of 0.02007. Thus, there is an insignificant difference for abnormal returns on Friday before the Covid-19 pandemic with Friday when the Covid-19 pandemic took place in the IDX30 group of issuers on the Indonesia Stock Exchange during the research period.

The test results on hypothesis one using one t-test sample prove a Monday Effect on companies included in the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic. Investors are likely to still delay trading on Monday due to devising the right strategy for making investment decisions taking into account relevant information at the end of the trading day. The results of this study support research conducted by French (1980), Cross (1973), Gibbons M. & Hess (1981), Wang and Erikson (1997), Ramadhani (2016), Olaley (2018), Izadi &Noman (2019), Suryandari &Wirawan (2018) stated that there was a negative return at the close of Trading Monday called Monday Effect caused by investors behaving less rationally and depending on the mood of each investor in the decision making of buying. So it can be concluded that the Monday effect anomaly occurs in companies incorporated in IDX30 in IDX in the observation period so as to weaken the theory of market efficiency because investors have the opportunity to obtain abnormal returns.

The test results on the second hypothesis using one t-test sample prove that there was a Monday Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange during the covid-19 pandemic. The purpose of this test is to prove whether when the first covid-19 case was announced in Indonesia, especially on IDX30 in IDXI, there was still an anomaly in the Monday effect market. The test results show that investors are likely to still delay making stock purchase transactions on Monday, taking into account relevant information. This test also supports previous research conducted by Field (1931); French (1980); Cross (1973); Gibbons &Hess (1981); Lokonishok and Maberly (1990); Wangdan Erikson

(1997); Izadi &Noman (2019); Ramadhani (2016); Suryandari &Wirawan (2018); stated that there was a negative return at the close of trading on Monday called Monday Effect.

The third hypothesis against the two groups on Monday Before Covid-19 and Monday When Covid-19 using a different test two average Independent samples (Independent Sample) with the test results stated that there was a significant difference in abnormal returns on the anomaly Monday effect of companies listed on the IDX-30 index in the observation period. The event of the spread of covid-19 in Indonesia, which was first announced on March 2, 2020 has a significant influence on the abnormal return of IDX-30 companies in IDX. This can be seen from the results of the test of the average abnormal return of the group on the Monday period before the pandemic of -0.01027. Statistically smaller than in the group on Monday when the pandemic was -0.06511. This test supports several previous research results that prove that pandemic conditions covid-19 an impact on economic life. Among others Sansa (2020), on the Shanghai Stock Exchange and New York Dow Jones period March 1 – March 25, 2020 which showed a significant decrease in response to the Covid-19 pandemic. Beret et al. (2020) state that Covid-19 has a significant effect on financial markets in general, including the decline in stocks, oil, equities, and bonds around the world and in detail on banks.

The fourth hypothesis (H4) was tested using one t-test sample. The test results prove that there was no Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic. This is because the market conditions of exchanges around the world at the beginning of the year are in an unstable condition due to negative sentiment from the impact of the spread of the coronavirus resulting in a pattern of daily stock returns difficult to predict in this pandemic condition and indirectly impact the Indonesian capital market. Changes in investor behavior due to the spread of Covid-19 is suspected to be one of the causes of the weekend effect. The fourth hypothesis (H4) was tested using one t-test sample. The test results prove that there was no Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange before the covid-19 pandemic. This is because the market conditions of exchanges around the world at the beginning of the year are in an unstable condition due to negative sentiment from the impact of the spread of the coronavirus resulting in a pattern of daily stock returns difficult to predict in this pandemic condition and indirectly impact the Indonesian capital market. Changes in investor behavior due to the spread of Covid-19 is suspected to be one of the causes of the weekend effect.

The fifth hypothesis (H5) was tested using one t-test sample. The test results prove that there is a Weekend Effect on companies listed on the IDX-30 index on the Indonesia Stock Exchange during the covid-19 pandemic. This phenomenon occurs the influence of the end of the week, which results in the return of stocks on Friday will be higher than on other trading days. The guessing of this phenomenon is due to the psychological factors of investors who encourage to make transactions, one of which is profit-taking action to face the holiday (Sularso et al., 2013) and considering the conditions due to the pandemic covid-19 that is not uncertain. This test supports empirical evidence related to the weekend effect anomaly. Field

(1931) that an anomaly where Saturday's average index was higher than on Friday and Monday. Gibbons & Hess (1981) on the NYSE from 1962 to 1978 declared a positive return on Friday, Olson et al. (2015) found a weekend effect on the stock market in the U.S. after a previous study in 1973. Kra et al. (2019) also found an anomaly of the weekend effect in the African stock market. Olaley (2018), on the stock market in Nairobi, found the phenomenon of the weekend effect. Suryandari & Wirawan's research (2018) proves that there is a Day of The Week Effect phenomenon where the highest return occurs on Friday and the lowest return occurs on Monday.

The sixth hypothesis was tested by a different test of two Independent average samples by comparing abnormal return differences in weekend effect anomalies for companies listed on the IDX-30 index in the period before and during the Covid-19 pandemic. The test results showed no difference but not significant for the weekend effect market anomalies in the period before Covid-19 and during Covid-19 for the IDX30 index in IDX. The anomaly of this weekend effect proves that the stock market in Indonesia is not yet fully efficient, so investors still get abnormal returns. This test supports several previous research results proving that pandemic conditions covid-19 impact economic life, among others Sansa (2020) on the Shanghai Stock Exchange and New York Dow Jones period March 1 – March 25, 2020 which showed a significant decrease in response to the Covid-19 pandemic. Beret et al. (2020) states that Covid-19 has a significant effect on financial markets in general, including the decline in stocks, oil, equities and bonds around the world and in detail on banks, Numasari (2020), Wicaksono and Adyaksa (2020).

IV. CONCLUSION

Test results related to Monday Effect anomalies for Companies listed on the IDX-30 index on the Indonesia Stock Exchange before and during the Covid-19 pandemic: (a) The results of the first hypothesis test (H1) prove that there was an anomaly Monday effect of companies listed in the IDX30 stock index in the IDX30 stock index in the period before the Covid-19 pandemic on February 1, 2020-March 1, 2020; (b) The results of the second hypothesis (H2) test prove that there was an anomaly Monday effect of companies listed in the IDX30 stock index in IDX in the period during the Covid-19 pandemic on March 3, 2020-March 31, 2020; (c) The results of the third hypothesis (H3) test show that there was a significant abnormal positive return difference in the anomaly of Monday effect of companies listed in the IDX30 stock index in IDX in IDX in the period before and during Covid-19.

Empirical test results related to Weekend Effect anomalies for Companies listed on the IDX-30 index on the Indonesia Stock Exchange before and during the Covid-19 pandemic: (a) The results of the fourth hypothesis test (H4) prove that there was no Weekend effect anomaly in companies listed in the IDX30 stock index in idx30 in the period before the Covid-19 pandemic on February 1, 2020-March 1, 2020; (b) The results of the fifth Hypothesis (H5) test show that there was an anomaly of Weekend effect on companies listed in the IDX30 stock index in idx30 in the period before the Covid-19 pandemic on March 3, 2020-March 31, 2020; (c) The results of the sixth hypothesis

(H6) test show that there was a significant abnormal negative return difference in the anomaly of the Weekend effect of companies listed in the IDX30 stock index in IDX in IDX in the period February 2020–March 2020.

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