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NEW YEARS EFFECT AT BITCOIN PERFORMANCE

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ABSTRACT

This research identifies changes in the price, return, and trading volume of Bitcoin in the market in taking investment decisions in Indonesia. This research uses event study analysis conducted on the price, return, and volume of bitcoin during New Year. Observations were made before and after New Year, with observational data on prices, daily returns and volumes carried out for 90 days, 30 days and 7 days from 2014-2018. The results of the research conducted show differences in prices before and after New Year, indifference in returns before and after New Year, and the last is there were difference in volume before and after New Year.

KEYWORDS: Bitcoin, Cryptocurrency, events study, New Year, price, return, volume

INTRODUCTION

Throughout the retrieving from developments in Economic Sociology studies in Indonesia, the focus is still on studies that analyze the structure, institutions and national economic systems aimed at the welfare of society. This triggered researchers to examine the phenomena that occur in the world of economy, one of them is Cryptocurrency. Cryptocurrency (or crypto currency) is a digital asset designed to function as a medium of exchange that uses cryptography to secure transactions, to control the creation of additional units, and to verify the transfer of assets. Cryptocurrency is a digital currency in which encryption techniques are used to control the formation of currency units and verify fund transfers, operating independently of a single central unit (Schueffel, 2017). Cryptocurrency already has 1548 types of crypto, one type that is very popular and has the largest Capital market, namely Bitcoin with the amount of 16,994,837 BTC in April 2018 (coinmarketcap.com).

The presence of Bitcoin invites pros and cons in financial transactions. This virtual currency becomes a problem and is addressed differently by the other state. Some countries recognize legally, such as the United States which has a better growth of bitcoin development among other countries. In the United States, bitcoin can be used to make payment transactions online shopping, tuition fees, and other bills. Bitcoin was legalized in accordance with the decision of the US Treasury Department in 2013 which stated that bitcoin is a decentralized and convertible virtual currency (Calvery, 2013). Besides the United States, other country that legalizes bitcoin is Japan. Bitcoin's endorsement has an impact on increasing retailers that accept bitcoin payments. The number of stores that accept digital payments with bitcoin has more than 4,500 outlets. One of them is the Nikkei who experienced a

surge in transactions after collaborating with bitcoin towards the end of 2017 (WartaEkonomi.co.id, 2019).

On the other hand, there are countries that expressly prohibit the use of bitcoin as a transaction tool. This is because the nature of bitcoin which is not connected to a country's currency or any exchange resulting in illegal bitcoin in some countries, one of them is Indonesia. Prohibition of bitcoin in Indonesia is in accordance with the FAQ of Bank of Indonesia Press Releases issued by Bank of Indonesia (BI). In Indonesia, bitcoin transactions are prohibited because virtual currency is digital money issued by parties other than the monetary authority, and is obtained by buying, transferring, or mining. Virtual currency is issued by the community, used and accepted only for community members. Prohibition of transactions using virtual currency in Indonesia is due to government consideration of virtual currencies to have a very high level of risk and can disrupt financial system stability, be prone to risks for money laundering and financial terrorism and also harming consumers. The ban on the use of bitcoin is based on Law No. 7 of 2011 concerning Currency, and confirmed through Bank Indonesia Regulation (PBI) No. 17/3 / PBI / 2015 concerning Obligation to Use Rupiah, Article 34 PBI No. 18/40 / PBI / 2016 concerning Implementation of Payment Transaction Processing. As well as Article 8 paragraph (2) PBI No 19/12 / PBI / 2017 concerning the Implementation of Financial Technology (Agusman, 2018).

Although it does not depend on state financial infrastructure, the restrictions imposed by various countries also influence the growth of bitcoin. As expressed by Armindo Araújo, Head of Financial Division of NATIXIS, a French bank "In my opinion, the position of Bitcoin in the next year will be determined by regulation and its application in the global market" (Rosyadi, 2017). In a country that legalizes bitcoin has legal term so that bitcoin users easily transact and guaranteed investor profits. Whereas in countries that do not legalize bitcoin it is a high-risk investment choice because there is no legal guarantee for transactions and returns obtained by investors. So is the case with bitcoin investors in Indonesia who do not legalize bitcoin. Thus decision making by a bitcoin investor in Indonesia must consider this risk.

The ability of investors to read information is needed so that investors get return as expected. In gathering investment information, investors must observe all available information in order to get the expected benefits. The returns from the movement process or price changes are also called returns. The fact that there are price fluctuations in the market reflects the flow of information heard to investors. This is in accordance with previous research conducted by Zheng (2007) which states that information on momentum effects seen from the volume will influence the decisions of stock investors. Event studies can be used as one of the information that can help investors in making decisions. Information about an event that occurs will greatly affect the policies taken by investors, this is supported by previous research conducted by Wagner, Zeckhauser, and Ziegler (2018) which examines the reaction of policies taken by Donald Trump with regard to expectations of tax rates, the results show things it greatly affects the value of the company. Bitcoin price fluctuations in various

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international and local bitcoin markets such as coinbase, bitstamp, kraken, btc china, bitcoin.co.id and others are driven by many factors. Like the volatility in the bitcoin market that does not yet have an index generally accepted, because Cryptocurrency as an asset class is still in the nascent stage (Ivanshah, 2017).

The price difference in each Bitcoin exchange is caused by demand and offers made by investors. Exchange Bitcoin (Bitcoin Exchange) is a place for people who have Bitcoin to sell (offers) to those who want it (request). This also means that if you see two exchanges (Exchange A and Exchange B) that are both Bitcoin transactions, one cannot be sure that the price of Bitcoin is the same for both exchanges. If on the exchange, more people sell than buy, then prices tend to fall, because supply exceeds demand. Likewise, if more people buy on a particular exchange, then the demand is more than the bid so that the price rises. Everything depends on market conditions, things that constantly change over time (Rooyen, 2017). As with trade theory, the more goods circulating in the market, the price of an item (including Bitcoin traded) will also go down, and vice versa when the need for goods increases with the amount of fixed goods prices will move up (Fintech, 2017). Returns are influenced by information the previous day, especially investors will quickly react to bad news that occurs in the market. This is in accordance with the research conducted by Abraham and Ikenberry (1994) who found that the findings were substantially a consequence of returns in the previous trading session, especially after investors got bad news information on the market. The event study aims to find out the effects of January 1, analyze the events before and after the New Year that occurred in Indonesia. In addition, with the study of New Year events, it is expected to provide information to investors for decision making in buying or selling Bitcoin owned.

Tradition and culture in welcoming the New Year are usually around the world igniting fireworks and blowing trumpets. The excitement of the fireworks that came when starting the year is often interpreted as hope and optimism. The Christian New Year is celebrated differently in each country, such as the United States New Year's Eve Party is centered in Times Square. Since more than 100 years ago, the turn of the year was marked by the tradition of dropping giant balls with a diameter of 182.8 cm, and weighing 485.34 kg in Times Square at 11:59 p.m. In Brazil New Year’s party is held at Copacabana Beach, Rio de Janeiro. The city of São Paulo also hold a Marathon Saint Silvester match (Corrida de São Silvestre) which is followed by marathon runners from around the world. Whereas in Indonesia New Year's eve is celebrated by traveling around the city using cars and motorbikes. Cardboard trumpets that people sound on the streets and entertainment venues have become the people's culture when they welcoming New Year. New Year in Jakarta is centered on Monas and Ancol Bay City. The Monas area was enlivened by thousands of people who come using motorbikes and cars. New Year’s Eve in Ancol is enlivened by a music stage and fireworks.

The New Year moment in Indonesia is used for vacation and gathering with family. Starred – hotels offer packages for families who celebrate the New Year by staying at hotels and villas or similar inns. In addition, hotels and entertainment venues hold a dinner and music show. More people need

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more money for Christmas and New Year's needs so they decide to withdraw by cashing in their Bitcoin. Many suspect that one of the factors in the sudden decline in bitcoin prices is because of the long holiday season. This is supported by previous research conducted by Jacobsen and Zhang (2012) who examined the events of holiday moments affecting stock movements in the UK. New Year is the moment the price movement of Bitcoin. This is also supported by research conducted by Lesmana, Rakhman, and Bunfa (2015) which stated that there are Holiday Effect influences on religious holidays and national holidays on returns before and after holidays in companies incorporated in LQ-45 on the Indonesia Stock Exchange (IDX) during the period February 2011 to January 2014. Grinblatt and Moskowitz (2004) stated that the return of shares in the past had a substantial impact on the expected stock returns. In addition, the researchers found that there was a very strong December effect in stock returns, and the long-term returns only appeared in January. Kim and Park (1994) found results that stock returns in the United States and Japan markets showed that there were holiday effects on the US and Japanese stock markets. Although each country has different holidays and institutional arrangements.

Bitcoin starts the New Year with poor performance. On December 18, 2017, Bitcoin had slipped to as low as US $ 19,511 per coin. According to coinmarketcap.com, which recorded daily movements, the price of Bitcoin also fell from US $ 14,156 on December 31, 2017. Even though Bitcoin was able to start stronger at the beginning of last year, and continued its momentum to finally create global euphoria for Cryptocurrency. Coinmarket.com data showed Bitcoin prices rose 3.6 percent on the first day of 2017 to US $ 998 and ended 2017 with increases of more than 1,300 percent (Bisnis.com and Cahyani, 2018). The value of Bitcoin moves down during the third week of December 2017. The decline in the value of virtual currencies occurs every day for a week. The Economist Institute for Development of Economics and Finance (Indef), Bhima Yudhistira Adinegara, said the decline this time was the effect of Bitcoin sales for Christmas and New Year's needs. "It is the same as the gold shop which is crowded before Ied," he said when contacted by Tempo on Sunday, December 24, 2017. The behavior occurred globally and at the same time causing a decrease in value (Florentin and Widyastuti, 2017). Bitcoin investment is a speculative investment, this is due to high uncertainty. When investors face uncertainty and have a high risk of an investment commodity to help investors in making decisions can use the theory of prospects. This theory was made in 1979 by Daniel Kahneman and Amos Tversky.

According to Kahneman and Tversky (1979) stated that prospect theory as a description of decision making psychologically is more accurate, compared with expected utility theory. In the original formulation, the term prospect refers to the lottery. The aim of Prospect Theory is to describe how consumers make decisions when facing uncertainty in the consequences of their choices (Chiu & Wu, 2011). Prospect theory is related to human cognitive psychology which explains how one chooses probabilistic alternatives that involve risk, where the probability of results in the processors has no certainty. Prospect theory is used for decision making in risky conditions, so decisions taken are based on the circumstances that occur at that time, and the conditions are in a condition of

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uncertainty, where it is difficult to predict the consequences or results of the event. Decisions taken involve internal conflicts or trade-off values, which are difficult choices when there are conflicting values and goals. Prospect theory directly shows how these choices are formed and evacuated in decision-making processes (Levy, 1992).

To see how the disposition to sell when prices are high and hold back when prices go down appears in the theory of prospects, consider an investor who bought a stock one month ago for $ 50 and who found that the stock now sells for $ 40. Investors now have to decide whether to realize losses or hold shares for one more period. According to the prospect's theory, our investors frame their choices as a choice between the following two lotteries: A. Sell shares now, thus realizing what is becoming a $ 10 "paper loss", B. Hold shares for one more period, given a 50:50 chance between losing $ 10 extra or "break even." Because the choice between the lottery (uncertainty condition) is related to the consequences to be obtained, the prospect theory implies that B will be chosen rather than A. That is, investors will hold their lost shares in the hope that the future will benefit. The analogous argument shows why prospect theory gives rise to dispositions to realize profits. Given that losses are tolerable, investors will be willing to accept B even if it is possible in the future to break even. However, if the investor estimates in the future regarding losses exceeding 50:50. Of course, opportunities in B become quite unprofitable, so investors will prefer to realize their losses and choose opportunities A (Shegrin and Statman, 1985). Under these conditions, investors make decisions based on the value of potential losses and profits rather than the end result. So the prospect theory suggests that you hold bitcoin before the new year even though the price might fall.

This is the reason the researchers analyzed the price, return, and trading volume of bitcoin by using event study so that it can be used as one of the information in decision making by Bitcoin investors.

Research methods

The population of this research was all Bitcoin transaction data. Bitcoin is one of the most popular types of crypto and has the largest Capital market with the amount of 16,994,837 BTC in April 2018 (coinmarketcap.com). Bitcoin is also one of the first types of crypto to be created and is still popular today. While the research sample used daily data as much as 90 days before and after the New Year from price and volume of Bitcoin. The use of daily data was based on research conducted by Behofsits, Huber, and Zörner (2018) which stated that research uses daily data in order to observe carefully changing trends in cryptocurrency. The year of research was conducted from 2014-2018, considering that the trend in bitcoin only occurred in 2014-2018. Therefore researchers observed the movement of bitcoin in that period, and in the 90, 30, and 7 days before and after 1 January since the latest 2014-2018 year. The type of data used in this study is secondary data, namely data obtained through intermediary media. The intermediary media used in this site is indodex.com.

This study operationally defines the price variable is an exchange rate that can be equated with money or other goods for benefits obtained from an item or service for a person or group at a certain

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time and place. Return is the profit or loss obtained by investors from investment returns. Volume is the number of coins available in one stock traded in a certain period.

The method of analyzing Bitcoin data when the new year was conducted with; Descriptive statistics, descriptive analysis is statistics used to analyze data by describing or describing data that has been collected as it is without intending to make conclusions that apply to general or generalizations (Sugiyono, 2012). While for testing the data researchers used the Wilcoxon Test. The Wilcoxon test was used as an alternative to the Paired sample t-test, which is commonly used to analyze different pairs of tests. This is because the research data is not normally distributed so the data is considered not to meet the requirements in parametric statistical testing specifically the paired sample t-test. Therefore researchers analyzed the data using non parametric statistical methods. Wilcoxon test is part of non-parametric statistical testing. The Wilcoxon test is used to determine whether there are differences in the average of two samples paired together. If the value is Asmp. Sig. (2-tailed) smaller than <0.05, Ha is accepted and H0 is rejected. Otherwise, if the value is Asymp.Sig. (2-tailed) greater than> 0.05, Ha is rejected and H0 is accepted.

RESULTS

1. Description of Statistics

The description of the statistics of all the variables used in the model is presented in Chart1-3. Chart1-3 contains information on mean, standard deviation, minimum, maximum. By observing daily data before and after the new year 90 days, 30 days and 7 days.

Chart 1: Mean

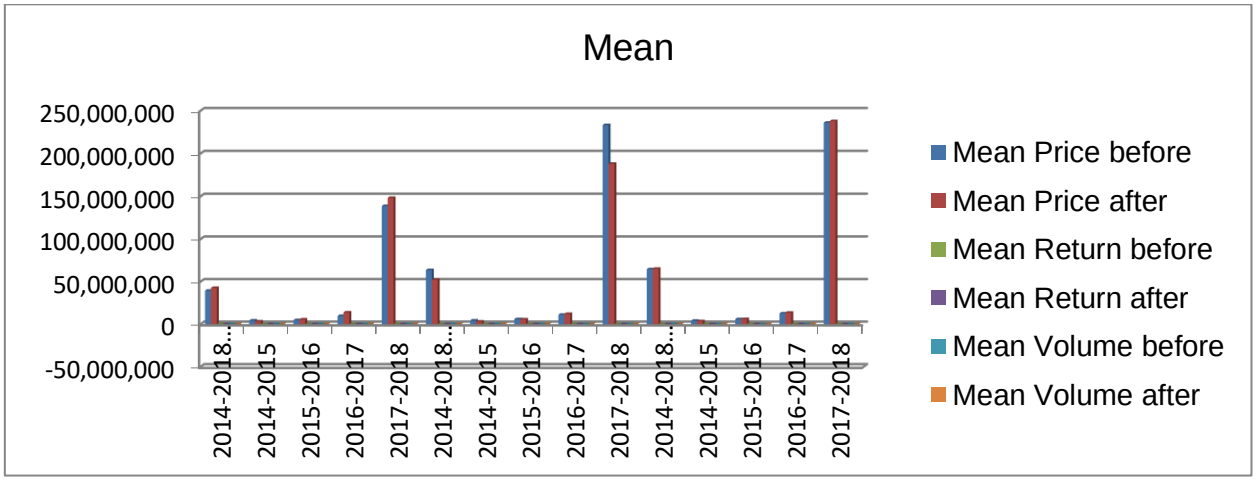

Chart 2: Std. Dev

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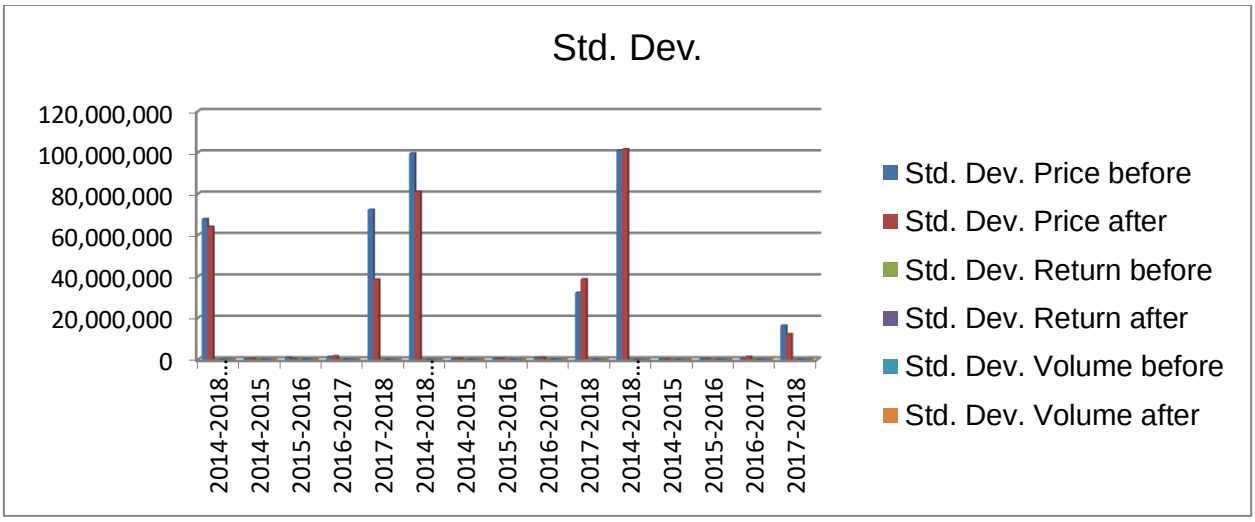
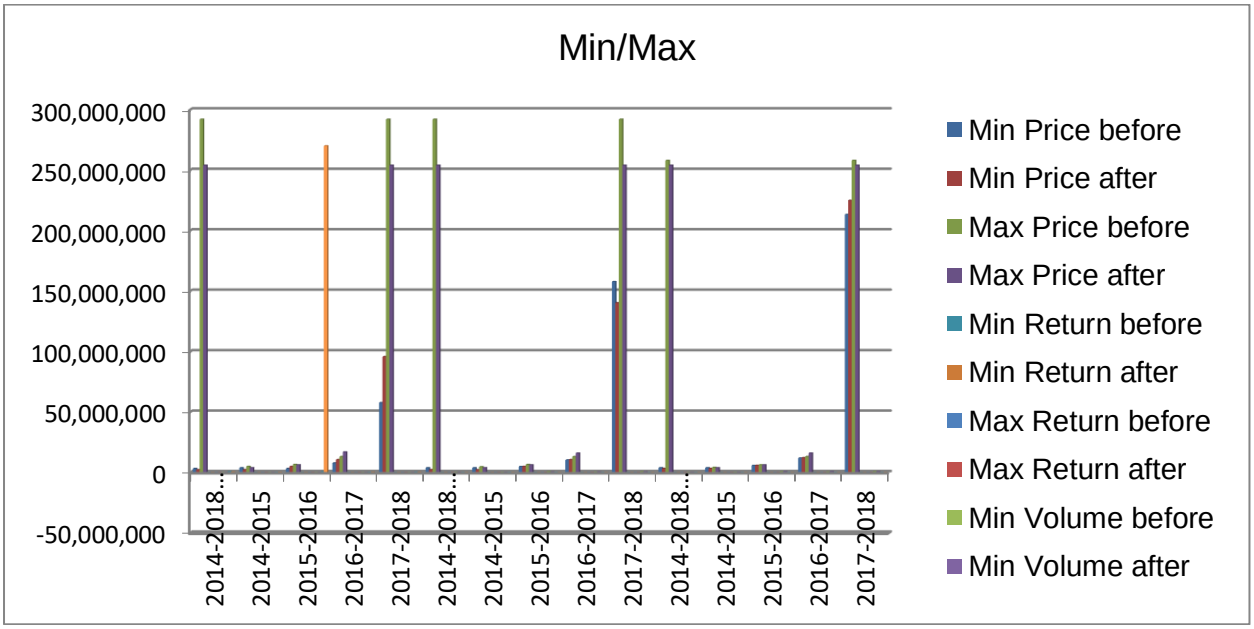


Chart 3: Min/Max



The description of the data presented includes mean, std. deviation, minimum and maximum. The mean is calculated average, while std. deviation (standard deviation) is a group or standard measure of deviation from the mean. Maximum is the value of data that has the highest frequency or value that often appears in groups of data (Sugiyono, 2012). Minimum is the value or smallest size in the data group. Table 1-3 shows the highest mean for the variable price of 237,723,143 in 2017-2018 win 7 days, while the mean for the lowest price is 3,071,566.7 in 2014-2015 win 30 days. Std. Deviation at the highest price of 101667827 in 2017-2018 win 30, while std. Deviation at the lowest price of 101218.29 in 2014-2015 win 7 days. The minimum value at the highest price is 2,250,100 in

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2017-2018 win 7, while the minimum is at the lowest price of 2,299,000 in 2014-2015 and automatically in 2014-2018, win 30 and 90 days. Maximum value at the highest price of 29.2 million in 2017-2018 and automatically in 2014-2018, win 30 and 90 days, while the maximum value at the lowest price of 3,907,000 in 2014-2015 win 7, 30 and 90 days.

The highest mean is the return variable which is 0.0156 in 2017-2018 win 30 days, while the mean for the lowest return is -0.016 in 2016-2017 7 days win. Std. deviation at the highest return of 0.09785 in 2016-2017 win 7, while std. The deviation at the lowest return is 0.01459 in 2014-2015, winning 7 days. The minimum value at the highest return is -0.01 in 2016-2017 win 7 days, while the minimum for the lowest return is -0.39 in 2017-2018 and automatically in 2014-2018, win 90 days. The maximum value at the highest return is 0.33 in 2017-2018 and automatically in 2014-2018, win 30 days, while the maximum value at the lowest is 0.01 in 2015-2016 win 7 days.

The highest mean on the volume variable is 99,351.755 in 2015-2016 win 90 days, while the mean for the lowest volume is 97.8786 in the 2014-2015 win 7 days. Std. Deviation at the highest volume 117658.4 in 2015-2016 win 90 days, while std. Deviation at the lowest volume of 18,33282 in 2014-2015 won 7 days. Minimum value at the highest volume -0.01 in 2016-2017 7 days win, while the minimum at the lowest volume is -0.39 in 2017-2018 and automatically in 2014-2018, win 90 days. Maximum value at the highest volume of 0.33 in 2017-2018 and automatically in 2014-2018, win 30 days, while the maximum value at the lowest volume of 0.01 in 2015-2016 win 7 days.

1. Hypothesis testing

Table 1: Ranks

Ranks											
Year	Name		Win 90 days			Win 30 days			Win 7days		
			N	Mean Rank	Sum of Ranks	N	Mean Rank	Sum of Ranks	N	Mean Rank	Sum of Ranks
2014-2018	Price_After-Price _before	Negative	145	148,49	21531,5	76	67,76	5150	11	14,91	164
		Positive	215	202,09	43448,5	44	47,95	2110	17	14,24	242
		Ties	0			0			0		
		Total	360			120			28		
	Return_After-Return_Before	Negative	191	192,68	36801	64	63,23	4047	13	14,38	187
		Positive	169	166,74	28179	56	57,38	3213	15	14,6	219
		Ties	0			0			0		
		Total	360			120			28		

	Volume_After-Volume_Before	Negative	149	196,71	29310,5	43	74,42	3200	5	18,4	92
		Positive	211	169,05	35669,5	77	52,73	4060	23	13,65	314
		Ties	0			0			0		
		Total	360			120			28		
2014-2015	Price_After-Price _before	Negative	90	45,5	4095	30	15,5	465	7	4	28
		Positive	0	0	0	0	0	0	0	0	0
		Ties	0			0			0		
		Total	90			30			7		
	Return_After-Return_Before	Negative	38	47,57	1807,5	14	14,29	200	4	3,25	13
		Positive	52	43,99	2287,5	16	16,56	265	3	5	15
		Ties	0			0			0		
		Total	90			30			7		
	Volume_After-Volume_Before	Negative	16	43,44	695	2	9,5	19	0	0	0
		Positive	74	45,95	3400	28	15,93	446	7	4	28
		Ties	0			0			0		
		Total	90			30			7		
2015-2016	Price_After-Price _before	Negative	21	25,57	537	19	18,11	344	1	3	3
		Positive	69	51,57	3558	11	11	121	6	4,17	25
		Ties	0			0			0		
		Total	90			30			7		
	Return_After-Return_Before	Negative	49	49,81	2440,5	18	16,17	291	3	3,33	10
		Positive	40	39,11	1564,5	12	14,5	174	4	4,5	18
		Ties	1			0			0		
		Total	90			30			7		
	Volume_After-Volume_Before	Negative	64	46,06	2948	21	16,86	354	3	3,33	10
		Positive	26	44,12	1147	9	12,33	111	4	4,5	18
		Ties	0			0			0		
		Total	90			30			7		

		Negative	3	5,67	17	3	5,67	17	1	1	1
	Price_After-	Positive	87	46,87	4078	27	16,59	448	6	4,5	27
	Price _before	Ties	0			0			0		
		Total	90			30			7		
		Negative	45	46,89	2110	14	17,29	242	3	4,67	14
2016-2017	Return_After-Return_Before	Positive	45	44,11	1985	16	13,94	223	4	3,5	14
		Ties	0			0			0		
		Total	90			30			7		
		Negative	16	36,5	584	4	9,75	39	0	0	0
	Volume_After-Volume_Before	Positive	74	47,45	3511	26	16,38	426	7	4	28
		Ties	0			0			0		
		Total	90			30			7		
		Negative	31	47,58	1475	24	18,08	434	2	4,5	9
	Price_After-	Positive	59	44,41	2620	6	5,17	31	5	3,8	19
	Price _before	Ties	0			0			0		
		Total	90			30			7		
		Negative	45	46,58	2096	18	15,78	284	3	3,67	11
2017-2018	Return_After-Return_Before	Positive	45	44,42	1999	12	15,08	181	4	4,25	17
		Ties	0			0			0		
		Total	90			30			7		
		Negative	53	47,43	2514	16	16,63	266	2	5	10
	Volume_After-Volume_Before	Positive	37	42,73	1581	14	14,21	199	5	3,6	18
		Ties	0			0			0		
		Total	90			30			7		

Since the data are not normally distributed, then the researchers immediately observe that there are differences before and after the New Year. The researchers carried out the Wilcoxon test, the test results from each year and overall years with the observation window of the day -90 +90, day -30 +30, and day -7 +7. The results of the analysis can be seen on the table, where it shows the differences between the price, return, and Bitcoin volume before and after the new year. Negative

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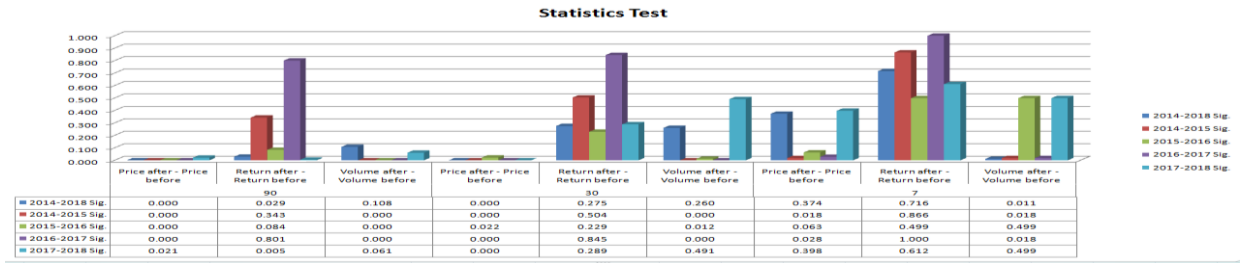
ranks mean the sample with the value of the second group (after) is lower than of the first group. Whereas, the positive ranks are used to see the changes before and after the new year. The meaning of positive rank is the sample with the value of the second group (after) is higher than the value of the first group (before). Ties mean the value of the second group (after) is equal to the value of the first group (before). N score indicates the number of the sample involved in this study, which means the number of negative or positive samples in the research. Mean rank is the average rank or rating, and sum of ranks is the total amount of the ranks.

The significant direction of the price within win 90 days in 2014-2018 is positive. It is shown in the Ranks table of the comparison of positive and negative, where the table informs that N positive is higher in number compared to the negative. So, the price of Bitcoin after the New Year is higher compared to the price before the new year, this occurs on the observation of 90 days. But, if the observation window is reduced to 30 days, the results show the opposite, the number of the negative is higher than the positive. Meanwhile, for the observation of 7 days, the positive value is higher. The volume of the observation carried out in 2014-2018 resulted in significant influence is only the observation on 7 days. The significant direction of the volume of the win 7 is positive. It is indicated by the table of Ranks of the ratio between positive and negative, in which the positive N is higher than the negative (see table Ranks). Compared to conventional assets such as stocks, bonds, and gold, Bitcoin prices are more sensitive to market regulations and activities. This is caused by volatile market movements.

Chart 4: Statistical Test



	Price after - Price before	Return after - Return before	Volume after - Volume before	Price after - Price before	Return after - Return before	Volume after - Volume before	Price after - Price before	Return after - Return before	Volume after - Volume before
	90			30			7		
2014-2018 Sig.	0.000	0.029	0.108	0.000	0.275	0.260	0.374	0.716	0.011
2014-2015 Sig.	0.000	0.343	0.000	0.000	0.504	0.000	0.018	0.866	0.018
2015-2016 Sig.	0.000	0.084	0.000	0.022	0.229	0.012	0.063	0.499	0.499
2016-2017 Sig.	0.000	0.801	0.000	0.000	0.845	0.000	0.028	1.000	0.018
2017-2018 Sig.	0.021	0.005	0.061	0.000	0.289	0.491	0.398	0.612	0.499

The Wilcoxon test is used to determine whether or not there are differences in the mean of two samples paired together. If the significant value or Asmp.Sig. (2-tailed) is lower than < 0.05, Ha is accepted and H0 is rejected. Conversely, if the significant value is higher than > 0.05, Ha is rejected and H0 is accepted. It can be seen from the chart of the statistical test of 2014-2018; the results of the significance of the price and return of win 90 are lower than < 0.05 which means Ha is accepted. Whereas the significant value of the volume is 0,108 which is higher than > 0.05 as the result, Ha is rejected. The result of the analysis of win 30, the significant value is 0.000 which is lower than < 0.05 and Ha is accepted. While the significant values of the return and volume are higher than > 0.05 and Ha is rejected. And then the analysis of win 7 of price and return, the significant values are

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higher than > 0.05 and Ha is rejected. Then, the significance of volume is 0,011 which is lower than < 0.05 and Ha is accepted (see chart 4).

On per new year testing in 2014-2015 of win 90, 30, 7 days, the significances of the prices and volume are lower than < 0.05 so, Ha is accepted. While in the observations of 90, 30, 7 days, the significances of the return are higher than > 0.05 and Ha is rejected. In 2015-2016 of the win 90 and 30 days, the significant values of the price and volume are lower than < 0.05, Ha is accepted. While on the observations of 90, 30, 7 days the significant value of return is higher than > 0.05, Ha is rejected. While on win 7, the price and volume variables have significant values higher than > 0.05 so, Ha is rejected. In 2016-2017 of win 90, 30, 7 days, the significant values of price and volume are lower than < 0.05 and Ha is accepted. On the observations of 90, 30, 7 days, the significant values of return are higher than > 0.05 and Ha is rejected. In 2017-2018 on win 90 and 30 the significances of price are lower than < 0.05 and Ha is accepted. While on win 7 the significant value of price is higher than > 0.05, Ha is rejected. The significant value of return on win 90 is lower than < 0.05, Ha is accepted. Whereas the significances of variable return on win 30 and 7 are higher than > 0.05 and Ha is rejected. The last, on win 90, 30, and 7 the significances of the volume are higher than > 0.05, Ha is rejected (see chart 4).

2. Discussion

Indonesia is ranked as the first fastest growing internet connection in the world. The rapid growth of technology and digital development have brought some business changes. This has led to an increase in the growth of the technology-based financial company (Fintech) in Indonesia. The results of the research carried out by Asosiasi FinTech Indonesia (Indonesian Fintech Association) have mapped at least 120 companies currently engaged in the technology financial sector. Having a mobile, agile, and customer-oriented characteristics, Fintech has contributed to the marketing of the financial product and encouraged the growth of the national economy through the digital transaction.

The testing explains the influence of the new year on price changes. The test results of the price variable indicate that there are prices differences before and after the new year. Based on the overall observations (simultaneous observations) or partial observation, price variable shows its consistency, in which there are differences before and after the new year. Prices differences indicate that the new year is considered to contain information that causes investors to react. This is reflected in the occurrence of the bitcoin market prices. Information obtained by investors can influence the decisions made by investors. In making a decision regarding the obtained information, the investor can use prospect theory. When the information obtained indicates a better opportunity for the future, then the investor will hold back, and if the information obtained indicate a worse opportunity, the investor will release. This happens because in its principle, no investor wants to lose. It is supported by a research conducted by Barrett, Heuson, Kolb, and Schropp (1987) who investigated stock prices during an incident which showed that there were significant differences in prices before and after the incident. Other research by Bondt and Thaler (1985) examined investors' reactions to unexpected

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and dramatic news. The results informed that they got lost before the new year, but after January the prices extraordinarily returned after the formation of the portfolio.

The results of the research on return show that there are no differences before and after the new year's events. This means that the new year is not considered to contain information for investors. So that investors do not react when there is a new year event. This is reflected in the absence of reports on the return of Bitcoin before and after the new year. The results are supported by previous research conducted by Siregar and Hindasah (2010) which stated that there was no significant influence of the national holidays on returns. Christine and Rizal (2017) also stated that there was no effect on year-end holidays on the return of Private Bank shares with the largest capitalization value according to BEI 2011-2015.

The results of the study indicate that there are differences in the volume before and after the new year, it means the new year's event contains information, so investors react to the market. The up and down of the volume of Bitcoin is the result of the investors' reaction who buy and sell their bitcoins. The movements can be seen in the volume of the bitcoin market. This is supported by previous research conducted by Meidawati and Harimawan (2004) who claimed that there were significant differences in stock trading before and after the Indonesia legislative election in 2004. The similar finding can also be found in research by Dewi and Putra (2013) who explained that there were significant differences in the stock volumes before and after the announcement of the rights issue.
The differences in the price and volume of Bitcoin before and after the new year is caused by the transactions on bitcoins by investors. The sensitivity of the bitcoin prices makes the information on bitcoins trading profitably because of a large benefit of the trading ahead of price appreciation or depreciation (Feng, 2017). The Bitcoin movement is also very sensitive since it has not yet had an umbrella act. Even BI issued a statement on the ban on the use of bitcoin in Indonesia. The prohibition of using virtual currency in Indonesia is by the government's consideration that virtual currency has a very high level of risk and can disrupt financial system stability, be prone to the risk of money laundering and terrorism financing and harm consumers. The prohibition of using bitcoins is based on Law No. 7 the year 2011 on Currency, and confirmed through Bank Indonesia Regulation (PBI) No. 17/3/PBI/2015 concerning Obligation to Use Rupiah, Article 34 PBI No 18/40/PBI/2016 concerning the Implementation of Payment Transaction Processing as well as Article 8 paragraph (2) PBI No 19/12/PBI/2017 concerning Implementation of Financial Technology (Agusman, 2018).

CONCLUSIONS

Several conclusions are addressed based on the findings of the study:
The simultaneous testing from 2014-2018 on the price indicates that on the observation of 90 and 30 days, there is an influence of the price before and after the new year in Indonesia, while on the observation of 7, there is no difference of the price before and after the new year. The simultaneous testing 2014-2018 on return inform that there are influences of the return before and after the new

year on the observation of 90, whereas on the observations of 30 and 7 there is no difference of the return before and after the new year. The simultaneous testing 2014-2018 on volume report that on the observations of 90 and 30 days, there are influences of the volumes before and after the new year in Indonesia, while on the observation of 7 days there is no difference of the variable volume before and after the new year. Partial testing every year on price shows consistent results, where there are differences in the prices before and after the new year in Indonesia. The researchers had carried out testings for several years through 3 different windows and found almost similar results. The partial testing every year on return showing consistent results, there is no difference of return before and after the new year in Indonesia. The researchers had carried out testings for several years through 3 different windows and found almost similar results. The partial testing every year on volume showing consistent results, there are differences in the volume before and after the new year in Indonesia. The researchers had carried out testings for several years through 3 different windows and found almost similar results.

Suggestion for Further Researchers

1. This study only looks at the movement of one type of crypto, suggestions for subsequent research to add or examine other types of cryptocurrency, for example, Ethereum, XRP, Litecoin, EOS, Cash Bitcoin, Tether, TRON, Stellar, Finance Cion, Bitcoin SV, and many others.
2. This study only analyzes one event, namely the new year, for the next study, other researchers can analyze other types of events that occur in a country or other country. For example, political events, terrorism, religious celebrations or independence celebrations.
3. This study uses variables such as price, return, and volume. Next researchers can add other variables in the same analysis model.
4. This study analyzes the event study, the next researcher can add other factors to contribute to forming or causing the price movements of bitcoin.

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