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Price Manipulation During the Indonesian Presidential Election of 2019: does it Matter Toward Return, Volatility and Liquidity?

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Abstract

The main purpose of this research is to evaluate if stocks indicated political content during the 2019 Indonesia's presidential election in the form of price manipulation. This study uses a quantitative method by employing an independent sample t-test to test the hypothesis. Sample formation is divided into two broad categories which are affiliated company stocks and non-affiliated company stocks. Data gathered in this study are return, volatility, and liquidity from March 23 to April 17, 2019. The results show that there is no evidence of price manipulation during the presidential election in those three variables including return (0.0870), volatility (0.5630) and liquidity (0.0800). The overall null hypothesis cannot be rejected since the t-statistics is smaller than the t-table (2.0243). However, there is an indicative of the stock price decrease which occurred during a period of observation from the 2019 presidential election. Although the price manipulation is not evidence during the election, yet strengthening the stock market regulation is necessary in order to improve investor's confidence to invest in Indonesia in particular during political events

Keywords: presidential election, price manipulation, return, volatility, liquidity.

I. INTRODUCTION

Political events are non-economic risks that exist in the capital markets, caused by the dynamics of the political situation which may affect a country's economy. Various political events such as regional elections or presidential elections create a major impact towards the economy and market movement. Both policies and regulations taken by the government may affect companies as well. Therefore, the presidential election as the political power transformation affects not only political conditions but social and economic conditions According to Indonesia's Ministry of Finance, Sri Mulyani, the government is able to anticipate a political surge that disrupts economic stability and financial markets. Similarly, The Director of Indonesia Stock Exchange, I Gede Nyoman Yetna in an interview with CNN Indonesia, stated that the 2019 presidential election would not affect the Indonesian Stock Market Index (IHSG) since it stayed in the green zone [2].

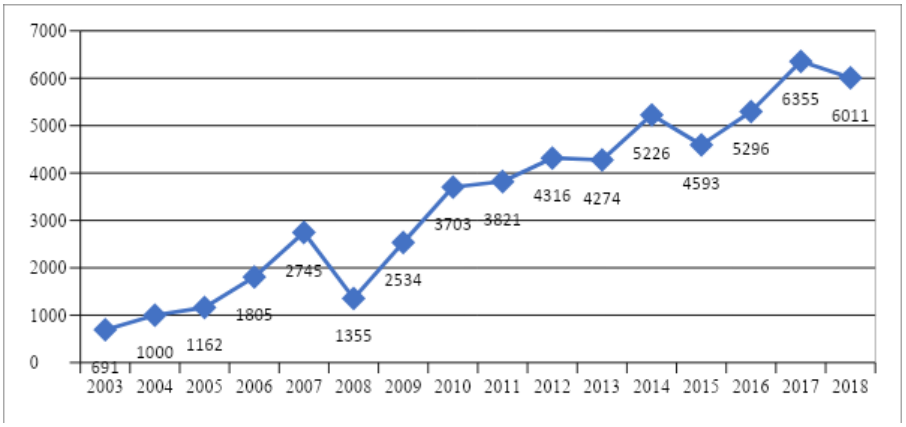

Fig 1. IHSG movement for the year 2003 to 2018

As can be seen in Figure 1, the IHSG movement in every presidential election shows an upward trend. In the year of 2003 to 2004, it increased from 691 to 1000 or about 44.56% while in the year of 2008 to 2009 it increased from1035 to 2534 or about 86.98%. However, the increase during the election year was started by the decrease in the stock market index in the previous year (such as 2008 and 2018). This condition might be attributed to financial and economic conditions since there were a lot of costs incurred during the process of pre- presidential election. Such as in May 2019, when the real count of presidential elections began, the IHSG started to decline. The sectoral index of consumer goods as main contributor of IHSG, fell 3.8%. In turns, the IHSG also declined 1.46% to 5,826.87. Stock from the consumer goods sector mostly experienced negative return such as PT. HM Sampoerna Tbk./HMSP (-6.33%), PT. Unilever Indonesia

Tbk./UNVR (-4.2%), PT. Gudang Garam Tbk/GGRM (-3.09%), PT. Indofood Sukses Makmur Tbk./INDF (-2.93%), and PT Indofood CBP Sukses Makmur Tbk./ICBP (-2%). The decline in IHSG was related to seasonal movement of investors selling action which commonly took place in April and bought again in October.

In every presidential election, it is common for investors to wait and hold their investment until the presidential election process finishes. This pattern can be seen in the beginning of the presidential campaign until a new president has officially announced. During this time, the investors will observe the presidential candidates and stay away from the market, such as in the 2019 presidential election. In addition, what was attracted more during the 2019 presidential election is the political figures who were involved in the election. These political figures were also well-known and have substantial influence on the stock markets. For example, Sandiaga Salahudin Uno as founder and majority shareholder of PT. Saratoga Invenstama Sendaya who at that time ran as vice presidential candidate number 02. Meanwhile, the Chairman of the National Victory Team of presidential candidate 01, Jokowi-Ma'ruf, was Erick Tohir or the owner of Club Inter Milan and founder of PT. Mahaka Media. Similarly, Hary Tanoe, the chairman of MNC Group, conducted the Coalition of Indonesia Maju to support presidential candidate 01. On the other hand, in the Coalition of Indonesia Adil-Makmur as the supporters of presidential candidates 02, there is the son of the late President Suharto owner of PT. Humpus which engaged in investment and property. The involvement of these company's owners during the 2019 presidential election has resulted in heightened market sentiment towards their shares in the stock market. The market sentiment itself can be interpreted as an overall investor's attitude towards stock price movement under certain conditions in the capital market or in other words defined as investor risk aversion [3]. The risky stock is the stock with the high volatility [4]. The high volatility of those company stocks can be related to issue statements thrown into the public by each of the strongholds accompanied by high expectations of investors of predicting the winner of the presidential election. These high stock price fluctuations are also prone to capital market crime known as ‘price manipulation’.

Price manipulation is an action by some investors and even brokers to control the share price which has the effect of disrupting market efficiency [5]. Price manipulation can be in a form of price abnormality [6]. Some other call price as a component of price manipulation. In addition, market manipulation is a form of threat of market trust and integrity to the capital market through mispricing and market imperfections [7]. Therefore, it can be concluded that price manipulation is an integral part of market manipulation.

Indications of price manipulation can be seen from the amount of return and excess volatility [6]. A study on the Hong Kong Stock Exchange of 40 incidents of stock market manipulation revealed that there was a link between market manipulation and investors' overreaction [8]. On the other hand, excess volatility remains as an unexplained fluctuation in the share price with available discount factors and cannot be fundamentally justified [6]. Particularly in emerging markets, excess market volatility is often seen as a sign of market manipulation [9]. Another study, reviewed the closing price in the Paris Bourse and found there was a significant increase in volatility and volume that occurred mainly in the last minute of trading and this was associated with manipulation [10]. Some studies suggest there is a relationship between volatility and liquidity. Like [11] indicates that the variation in liquidity across stocks depends on the price level, volume, and volatility, while [12] finds common ground in liquidity shows greater during times of high market volatility. This confirms the relationship between volatility and liquidity. Stock liquidity itself can be seen from an asset's point of view and defined as the characteristics of an asset or "asset (individual) liquidity" or "market liquidity" depending on whether the focus is on the balance sheet or the market [13]. The market is considered liquid if an asset can be sold immediately within market hours without causing price movements and by losing the minimum value [14].

Since price manipulation is considered as a crime then avoidance through market monitoring should be regulators' wide concerns. In particular, price manipulation tends to be evidence in developed countries such as in previous studies toward price manipulation during presidential election events [10], [5], [15], [1], [16], [17]. Concerning results in the previous studies, this research's main contribution is to re-examine and detect the evidence of price manipulation during Indonesia's 2019 presidential election. As an addition to previous study, this research enhances the evaluation through three levels of variables including return, liquidity, and volatility. In addition, this research is also focusing on samples of company's stock that are associated with both presidential candidates' teams and make comparison with other companies in the same sectors that do not have any relationship.

II. METHOD

This research uses a quantitative approach by collecting quantitative data and applying statistical calculations. Malhotra in [18] suggest that quantitative research aims to quantify data and obtain research results that can be generalized by using statistics as data analysis tools while [19] explained that quantitative methods are based on the philosophy of positivism and used to research on specific populations or samples, data collection using research instruments, quantitative/statistical data analysis with the aim of testing established hypotheses. Research using quantitative methods such as [20], [21], and [22].

The population in this study is 555 stocks. By employing a purposive sampling method, the sample is then constructed into two sample groups. The first sample consisted of stock from a company that was associated with the presidential success team by considering their owner's support to one of presidential candidates which stated through the media. As many as 27 stocks can be included into this group. However, due to data availability, it is then reduced into 20 stocks. The second sample as comparison to the first group, is constructed based on the chosen 20 stocks in group 1. This second group is selected with criteria such comparable assets size and sector similarity with group 1. In total, there are 40 stocks used as samples, including mining, trade, services and investment, finance, infrastructure, utilities, and transportation. Data collection period is from the period of 23 March 2019 as the starting date of presidential campaign until 17 April 2019 or the election date. The variables used in this study are return, volatility, and liquidity. Daily return is then calculated using the price difference while daily volatility is calculated with Parkinson volatility. Similarly, daily liquidity of each stock is also calculated using Amihud's Illiquidity The null hypothesis aimed in this study is there is no difference between group 1 and group 2 in terms of return, volatility and liquidity or in other word there is no price manipulation during the period of observation. Sample of those two groups is then analyzed using an independent sample t-test method to check the differences between two groups by comparing their mean of return, volatility and liquidity.

III. RESULT

A series of independent sample t-tests are conducted towards samples. In order to run this t-test, previously the normality test as well as should be carried out as a normality test and homogeneity test. Results of the normality and homogeneity test for return, volatility and liquidity of all sample are listed in Table 1

Table 1. Normality and Homogeneity test results

Normality test						
	N	Mean	Std. Deviation	Z	*p-value*	Description
Return	20	-0,0017	0,0088	1,3810	0,4400	normal distribution
Volatility	20	0,1211	0,1050	1,3660	0,4800	normal distribution
Liquidity	20	0,1277	0,1924	1,6130	0,1100	normal distribution

Homogeneity test						
	Levene's Statistic	.d1	.d2	p-value	Hypothesis	Description
Return	0,0670	1	38	0,7970	H_0 Accepted	Homogenous
Volatility	1,0270	1	38	0,3170	H_0 Accepted	Homogenous
Liquidity	0,0000	1	38	0,9980	H_0 Accepted	Homogenous

Normality tests are performed to determine whether or not the data is normality distributed. Using two tailed tests, the p-value obtained from the normality test is then compared with a significant level of 5%. If $\alpha > 0.05$ then the data is normally distributed, otherwise if $\alpha < 0.05$ then the data is not normally distributed. Based on data in Table 1 the p-value of each variable is greater than 0.05 which include return (0.4400), volatility (0.4800), and liquidity (0.1100). Thus, it can be concluded that the data is normally distributed for those three variables.

Similar to the normality test, a homogeneity test is also necessary to be conducted before using an independent sample t-test. This test is aimed to check if variations in data from the sample have the same variance. If variance is homogenous, then the t-test will be performed using Equal Variance Assumed (or assumed the same variance). Conversely, if variance is not homogenous, then the t-test will be performed using Equal Variance Not Assumed. From table 1, it can be seen that the p-value of all variables including returns, volatility, and liquidity exceed the significance level of 0.05, thus all variables have the same or homogeneous variances.

Table 2. Independent Sample t-test Results

	Return	Volatility	Liquidity
Independent Sample t test of two groups			
n : 40	-0,0002	-0,0188	0,0049
Mean Differences	0.0870	0.5630	0.0800
t-statistics			
t-table (2.0243)			

Since all variables are normally distributed, the analysis is then continued by conducting the independent sample t-test for both affiliated stocks or group 1 and non-affiliated stocks or group 2. The complete results for the three variables tested can be seen in Table 2. The independent test of the t-test sample is one of the parametric statistical tests, to find out if the average difference is by comparing two mean groups from two different samples (scaled interval or ratio data). As can be seen in table 2, for all three variables including return, volatility and liquidity, the t-statistics is less than the t-table (2.0243) in which for return is 0.0870, volatility is 0.5630. Since there is no difference between group 1 of affiliated stocks and group 2 of non-affiliated stocks during the period of estimation, then the null hypothesis of no price manipulation in terms of return, liquidity and volatility cannot be rejected. In other words, there is not enough evidence to conclude that there is an indication of price manipulation in the stock of companies that support the presidential candidates.

In order to see the results consistency, analysis is also conducted for each sector of stocks in samples. Samples in group 1 (affiliated stocks) and 2 (non-affiliated stocks) can be classified into four sectors including mining (8 stocks), trade, services and investment (24 sectors), finance (4 sectors), infrastructure, utilities, and transportation (4 sectors). This test is aimed to see whether the impact of market sentiments from political events such as the presidential election that may induce price manipulation can be detected at a sectoral level. The complete results of independent t-test of each sector for all variables including return, liquidity and volatility can be presented in Table 3.

Table 3. Independent t-test Results t-test for Each Sector

Sectors	N	t-table	t-statistics		
			Return	Volatility	Liquidity
Mining	8	2.4469	0,0690	4,6850*	1,0180
Trade, Services, and Investment	24	2.0738	0,2410	0,3610	0,4940
Finance	4	4.3026	0,6070	0,6160	0,6100
Infrastructure, Utilities, and Transportation	4	4.3026	1,6230	0,0510	0,6600

Similar to the results in Table 2, it can be observed in Table 3 that in general the t-statistics is less than the t-table or the null hypothesis of no price manipulation cannot be rejected. Only one variable in the Mining Sector, which is volatility (4,6850), that shows significant results. This result indicated that for the mining sector there is an indication of price manipulation in terms of volatility. However, in terms of return and liquidity, there is no evidence to support the existence of price manipulation.

In addition to the t-test results presented in table 1, there are also mean differences for each variable including return, volatility and liquidity. A negative mean return difference indicates that the average return of non-affiliated stocks (group 2) is greater than the average return of affiliated stocks (group 1). The negative average return in both samples (group 1 and 2) indicates an unfavorable market movement during the period of presidential election which is as predicted previously in which stocks prices tend to fall. Furthermore, it is also found that the average volatility of affiliate stocks (group1) is lower than non-affiliated stocks (group 2) as indicated by the negative mean differences in volatility. However, in liquidity, the mean difference is positive. This implies that the average liquidity of affiliated stocks (group 1) is lower than the non-affiliated stocks (group 2). The low liquidity may impact the low return and volatility too [23].

Previous research suggests that price manipulation occurs when market sentiment is so great in which prices rise during periods of manipulation and fall after periods of deceit [23]. Market sentiments during the presidential election in Indonesia is also suggested to indicate this phenomenon which became the main motivation of this study. However, after a series of independent t-tests, there is evidence of low return, volatility and liquidity which may be due to negative sentiment in the market. In addition to the low market performance during the period of election, the rupiah is also weakening against the dollar, which is in contrast to market expectations. The heightened public sentiments towards the election process has caused investors to be cautious to take action. Investors tend to wait and hold their investment until the voting results have been collected and announced officially rather than just utilize the market conditions. The strong political sentiments such

as during the debate of president candidates eventually do not have impact towards the stock market as a whole.

IV. CONCLUSIONS

Based on results discussed in the previous section, it can be concluded that there is no indication of price manipulation practice in Indonesia's stock market during the presidential election in terms of return, volatility and liquidity. The intensive 'war of statements' seems to happen only in the media and not directly affect the investors' action. Regarding findings in this research, it is expected to have implications towards theoretical understanding as well as suggestions for market practitioners. Firstly, from the theoretical standpoint, although limited, this study is able to extend the price manipulation detection in three important variables including return, volatility and liquidity. This extension can be tested in other events that may contain price manipulation such as economic crisis, natural disaster or recent pandemic lockdown. Secondly, from the practitioner's standpoint including government and capital market supervisory such as OJK, it is expected to synergize and strengthen the market control in order to create a healthy investment environment. Although, price manipulation is not evidence during the presidential election but an effective monitoring system as well as clearer laws and regulations is important to promote so that public confidence to invest in Indonesia can be improved. Despite the results, this study is also not without limitations. Simple independent t-test in this study may be improved in future studies by employing other methodology including modeling the volatility by employing time series data. Extending the samples is also suggested for further understanding of price manipulation. In addition, detection in each variable may be carried out intensively to gain more insights on price manipulation.

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