**Comparison Analysis of LQ-45 Share Prices Before and During The Covid-19 Pandemic**

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| **Article Information:**  **Keywords:**  **Stock price, LQ45, Covid-19.** | **Abstract**  The COVID-19 pandemic has impacted the world of capital markets, especially in LQ45. The company's share price globally, the Indonesian state, also experienced an unprecedented decline. The purpose of this study is to analyze the impact of the COVID-19 pandemic on LQ45 shares by comparing the average price of LQ45 shares before and after the COVID-19 pandemic in Indonesia. This study uses IBM SPSS Version 22 with a different pair-sample test model (compare means paired sample t-test). The results of this study indicate that the decline in stock prices in LQ45 shares before and after the COVID-19 pandemic reached Rp1,234.76. |

**INTRODUCTION**

We are currently experiencing something unexpected, namely the spread of Coronavirus Disease 2019 (COVID-19) caused by the SARS-CoV-2 virus. The spread of this disease has occurred since the end of 2019. On December 31, 2019, the World Health Organization (WHO) reportedly identified the first case of COVID-19 in Wuhan City, China. This COVID-19 case continues to spread rapidly to other countries around the world. As the number of COVID-19 cases increases worldwide, on March 11, 2020, WHO declared COVID-19 a global pandemic (WHO, 2020).

This infectious disease can cause economic losses, reflected in the movement of stock prices. One of the infectious disease epidemics that affect companies' stock price is the COVID-19 pandemic (Jiang, 2017). The World Health Organization (WHO) explains that the Coronavirus (Cov) is a virus that will infect the respiratory system tract. This infection is called Covid-19, which will cause mild flu to acute illnesses such as the Middle East respiratory syndrome (MERS-CoV) and severe respiratory syndrome (SARS-CoV).

Based on these data, the coronavirus has had an impact on lowering the performance of the LQ45 stock index. Domestic stock prices fell significantly, including the LQ-45 Index. A stock price is a form of securities or securities traded on the capital market (stock exchange). The share price in question is each company's closing price, obtained from the share price at closing per day, then calculated monthly.

The LQ45 stock index is the leading stock in Indonesia. The LQ45 Index is a stock market index on the Indonesia Stock Exchange (IDX), consisting of 45 companies with the largest and most liquid capitalization rates and the most significant share ownership portion selected through several selection criteria. Only actively traded stocks will be included in the LQ 45 index. This means that the LQ 45 index is stock from issuers in great demand by investors. Therefore the LQ 45 index can be used as a reference in assessing stock trading performance activities in the capital market. Before the entry of Covid-19 into Indonesia, the LQ-45 Index grew by 3.23% at the end of 2019 (cnbcindonesia.com).

After the entry of Covid-19 in Indonesia in February 2020, several members of LQ-45 decreased by 15%. This impacts the Indonesian economy, which will affect stock trading in Indonesia. It will affect investor reactions and affect the market situation on the Indonesia Stock Exchange as a whole.

Previous related studies such as those conducted by Soureka & Muchlis, 2007 and Ayu et al., 2013 analyzed stocks under different conditions (before and after the stock split). Furthermore, other research conducted by Khan et al., 2020; Budiyanti, 2020, Evans, 2020 illustrates the adverse effects of the spread of Covid-19, which is detrimental to various parties. This condition requires empirical evidence on the performance of existing stocks to see their effect during the pandemic. This study was developed to prove how significant the comparison of stock prices before covid and during Covid-19 where the Covid-19 virus outbreak affects the difference in stock prices on the LQ 45 index and then uses the results from this analysis to provide investment advice to investors and policymakers.

**RESEARCH METHODOLOGY**

This study uses a quantitative approach in comparative descriptive research, which compares the stock price of LQ45 in the period before and after the COVID-19 pandemic. The data collection technique in this research uses secondary data taken from Yahoo Finance. The data used to process stock price comparisons is historical data in the adj price column or the closing price on that day. The data collection period is August 26, 2019, or before the Covid-19 announcement, and August 26, 2020, after the Covid-19 announcement (effective market trading day).

To analyze the difference in LQ45 stock prices before and after announcing the first COVID-19 cases in Indonesia, this study used a paired sample t-test, namely the paired sample t difference test between the average LQ45 stock prices. In the period before and after the announcement of the Covid-19 pandemic. As a prerequisite before performing this paired sample t-test, it is necessary to test for normality. The basis for decision making in the normality test is if the significance value (sig.) is more significant than 0.05, then the data in the study is usually distributed. Otherwise, if the significance (sig.) is less than 0.05, then the data in the study is not normally distributed. The researcher used IBM SPSS version 22 statistical software to conduct data analysis.

**THINKING FRAMEWORK**

LQ-45 Saham Stock Price

**AFTER**

COVID-19 pandemic

LQ-45 Saham Stock Price

**BEFORE**

COVID-19 pandemic

H1

Based on the description above, the hypotheses put forward are:

H1: There is a difference in the stock price of LQ45 in the period before and after the COVID-19 pandemic.

**RESULTS AND DISCUSSION**

**Table 1. LQ-45 Stock Volatility**

| **Nos.** | **Code** | **Stock Name** | **Stock Price Before the Pandemic (26 August 2019)** | **Stock Price After the Pandemic (26 August 2020)** | **Price Difference (percentage)** |
| --- | --- | --- | --- | --- | --- |
| 1 | ADRO | Adaro Energy Tbk. | 1,125.00 | 1,110.00 | -1,33% |
| 2 | AKRA | AKR Corporindo Tbk. | 4,270.00 | 3,030.00 | -29,04% |
| 3 | ANTM | Aneka Tambang Tbk. | 1,235.00 | 785.00 | -36,44% |
| 4 | ASII | Astra International Tbk. | 6,675.00 | 5,350.00 | -19,85% |
| 5 | BBCA | Bank Central Asia Tbk. | 6,100.00 | 6,305.00 | 3,36% |
| 6 | BBNI | Bank Negara Indonesia (Persero) Tbk. | 7,700.00 | 5,325.00 | -30,84% |
| 7 | BBRI | Bank Rakyat Indonesia (Persero) Tbk. | 4,270.00 | 3,740.00 | -12,41% |
| 8 | BBTN | Bank Tabungan Negara (Persero) Tbk. | 2,000.00 | 1,565.00 | -34,14% |
| 9 | BMRI | Bank Mandiri (Persero) Tbk. | 7,250.00 | 6,350.00 | -12,41% |
| 10 | BRPT | Barito Pacific Tbk. | 905.00 | 895.00 | -1,10% |
| 11 | BSDE | Bumi Serpong Damai Tbk. | 1,350.00 | 780.00 | -42,22% |
| 12 | BTPS | Bank Tabungan Pensiunan Nasional Syariah Tbk. | 3,220.00 | 3,890.00 | 20,81% |
| 13 | CPIN | Charoen Pokphand Indonesia Tbk | 5,025.00 | 6,100.00 | 21,40% |
| 14 | CTRA | Ciputra Development Tbk. | 1,095.00 | 760.00 | -30,59% |
| 15 | ERAA | Erajaya Swasembada Tbk. | 310.00 | 349.00 | 12,58% |
| 16 | EXCL | XL Axiata Tbk. | 3,480.00 | 2,480.00 | -28,74% |
| 17 | GGRM | Gudang Garam Tbk. | 69,475.00 | 52,675.00 | -24,18% |
| 18 | HMSP | H.M. Sampoerna Tbk. | 2,690.00 | 1,700.00 | -36,80% |
| 19 | ICBP | Indofood CBP Sukses Makmur Tbk. | 12,050.00 | 10,350.00 | -14,11% |
| 20 | INCO | Vale Indonesia Tbk. | 3,530.00 | 3,780.00 | 7,08% |
| 21 | INDF | Indofood Sukses Makmur Tbk. | 7,925.00 | 7,345,48 | -7,31% |
| 22 | INDY | Indika Energy Tbk. | 1,350.00 | 1,065.00 | -21,11% |
| 23 | INKP | Indah Kiat Pulp & Paper Tbk. | 6,850.00 | 9,425.00 | 37,59% |
| 24 | INTP | Indocement Tunggal Prakarsa Tbk. | 21,725.00 | 12,275.00 | -43,50% |
| 25 | ITMG | Indo Tambangraya Megah Tbk. | 13,000.00 | 8,400.00 | -35,38% |
| 26 | JPFA | Japfa Comfeed Indonesia Tbk. | 1,575.00 | 1,155.00 | -26,67% |
| 27 | JSMR | Jasa Marga (Persero) Tbk. | 5,600.00 | 3,940.00 | -29,64% |
| 28 | KLBF | Kalbe Farma Tbk. | 1,690.00 | 1,590.00 | -5,92% |
| 29 | LPPF | Matahari Department Store Tbk. | 3,020.00 | 1,280.00 | -57,62% |
| 30 | MEDC | Medco Energi Internasional Tbk. | 626.46 | 474.00 | -24,34% |
| 31 | MNCN | Media Nusantara Citra Tbk. | 1,240.00 | 915.00 | -26,21% |
| 32 | PGAS | Perusahaan Gas Negara Tbk. | 1,920.00 | 1,315.00 | -31,51% |
| 33 | PTBA | Bukit Asam Tbk. | 2,470.00 | 2,130.00 | -13,77% |
| 34 | PTPP | PP (Persero) Tbk. | 1,850.00 | 1,020.00 | -44,86% |
| 35 | PWON | Pakuwon Jati Tbk. | 640.00 | 422.00 | -34,06% |
| 36 | SCMA | Surya Citra Media Tbk. | 247.00 | 242.00 | -2,02% |
| 37 | SMGR | Semen Indonesia (Persero) Tbk. | 13,250.00 | 10,450.00 | -21,13% |
| 38 | SRIL | Sri Rejeki Isman Tbk. | 338.00 | 230.00 | -31,95% |
| 39 | TKIM | Pabrik Kertas Tjiwi Kimia Tbk. | 9,950.00 | 6,900.00 | -30,65% |
| 40 | TLKM | Telekomunikasi Indonesia (Persero) Tbk. | 4,450.00 | 3,020.00 | -32,13% |
| 41 | TPIA | Chandra Asri Petrochemical Tbk. | 8,825.00 | 7,050.00 | -20,11% |
| 42 | UNTR | United Tractors Tbk. | 20,925.00 | 23,250.00 | 11,11% |
| 43 | UNVR | Unilever Indonesia Tbk. | 9,770.00 | 8,200.00 | -16,07% |
| 44 | WIKA | Wijaya Karya (Persero) Tbk. | 2,210.00 | 1,285.00 | -41,86% |
| 45 | WSKT | Waskita Karya (Persero) Tbk. | 1,745.00 | 685.00 | -60,74% |

**Results**

The results of the LQ45 analysis show that the total stock prices before and after the COVID-19 pandemic were IDR 286,946.46 and IDR 231,382.48. Meanwhile, before and after the COVID-19 pandemic, the average stock price was IDR 6,377 and IDR 5,142. This also shows that stock prices have decreased by -19.36% after the COVID-19 pandemic. Thirty-eight companies experienced a decline in stock prices, and as many as seven companies experienced an increase in stock prices after the COVID-19 pandemic. Companies that have successfully experienced an increase in share prices after the COVID-19 pandemic are INKP (37.59%), CPIN (21.40%), BTPS (20.81%), ERAA (12.58%), UNTR (11.11%), INCO (7.08%), and BBCA (3.36%).

**Statistical Analysis and Hypothesis Testing**

Descriptive statistics are statistical analyzes that provide a general description of the characteristics of each research variable as seen from the average (mean), maximum, and minimum values, Joanne (2020). This study aims to analyze the comparison of LQ45 stock prices before and after the Covid-19 Pandemic. This study uses IBM SPSS Version 22 with a paired sample difference test model (compare means paired samples t-test).

**Table 2. Paired Samples Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Paired Samples Statistics** | | | | | |
|  | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Before | 6376,5880 | 45 | 10848,15702 | 1617,14777 |
| After | 5141,8329 | 45 | 8467,51078 | 1262,26198 |

Table 2 presents descriptive statistics on LQ45 stock prices before and after introducing COVID-19 cases in Indonesia. From table 2, the average stock price of LQ45 before the announcement of the COVID-19 case in Indonesia was Rp 6,376.59. Meanwhile, the average stock price of LQ45 after the COVID-19 case was IDR 5,141.83.

**Table 3. Paired Samples Correlations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Paired Samples Correlations** | | | | |
|  | | N | Correlation | Sig. |
| Pair 1 | Before & After | 45 | ,983 | ,000 |

Output results in Table. 3 shows the results of the correlation or relationship between the two data showing the situation before and after the COVID-19 pandemic. The correlation coefficient is 0.983 with a significance value (Sig.) of 0.000 or <0.05. This shows that there is a significant relationship between the two periods. Furthermore, the results of the paired different sample test on the stock price of the LQ45 Index in the situation before and after the COVID-19 pandemic are shown in Table 4 as follows:

**Table 4. Paired Samples Tests**

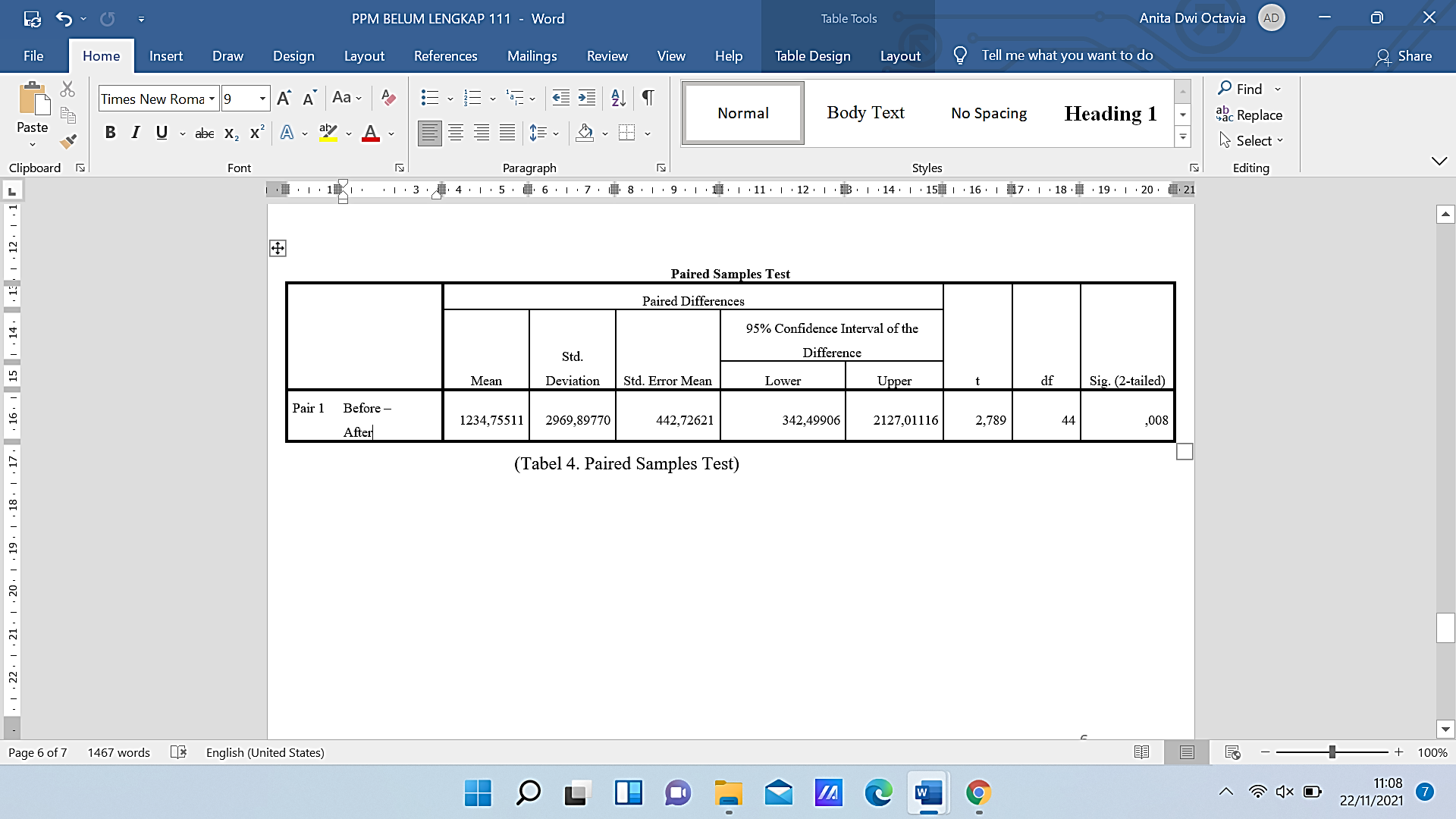


Table 4 shows the results of the paired sample t-test processed with the help of SPSS statistical software version 22. The data used in this test is the stock price of LQ45 before and after the announcement of the first COVID-19 case in Indonesia. The significance value (sig.) of comparing stock prices before and after announcing the first confirmed case of COVID-19 in Indonesia was 0.008, much smaller than 0.05. Based on the paired-sample t-test, it can be concluded that there is a significant difference in stock prices in the period before and after the event. Thus, H1 is accepted, and H0 is rejected.

**CONCLUSION**

This study aims to compare LQ45 stock prices before and after the COVID-19 pandemic in Indonesia. Based on the research results that have been described, it can be concluded that there is a significant difference between the average LQ45 stock price before and after the COVID-19 pandemic. From the Paired Sample Test results, it can be seen that there is a significant decrease of Rp. 1,234.76. The average stock price before the COVID-19 case was IDR 6,376.59, and after the COVID-19 case, it fell to IDR 5,141.83. Thus, this study is evidence of the negative impact of the COVID-19 case on the stock price of LQ45.

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