
| RESEARCH ARTICLE

COVID-19 Vaccine: Enhancement of Stock Buying in Indonesia

Hartono

Widya Dhama Pontianak University, Indonesia

Corresponding Author: Hartono, **E-mail:** hartono@widyadharm.ac.id

| ABSTRACT

This research is a conceptual paper that examines the impact of the presence of the Covid-19 vaccine on buying stock in the Indonesian trade after being hit by high concerns due to the pandemic. The emergence of the development of the Covid-19 vaccine can provide hope for the economy and capital market in Indonesia to bounce back. One of them is the increase in stock purchases can have a positive effect on the stock market. Although the presence of this vaccine is only temporary, there is a need for government intervention to implement economic recovery policies on the stock market. This research combines secondary data published from high-ranking journals to conduct further research.

| KEYWORDS

Covid-19 Vaccine, Purchase of Stock, Stock Market

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1. Introduction

The outbreak of the global COVID-19 outbreak that first appeared on December 31, 2019 in Wuhan, China. Coronavirus Disease 2019 (COVID-19) is a new type of disease that has never been previously identified in humans. The virus that causes COVID-19 is called Sars-CoV-2, where this virus can survive for up to three days with plastic and stainless steel. SARS CoV-2 can last up to three days or in aerosol for three hours (Ministry of Health, 2020). The COVID-19 virus has spread through the air (airborne) and respiratory droplets from coughs and sneezes brought by travelers from abroad to Indonesia. Since the first confirmed case until March 11, 2020, there has been an increase in 1,398,578 positive confirmed cases of COVID-19 with more than 37,000 deaths (WHO, 2021). Prior to the COVID-19 pandemic, there was a trade war between the United States (US) and China over the issue of import duty tariffs for goods imported from the United States, such as agricultural products, cars, clothing, chemicals and textiles worth USD 75 billion. Although the first phase of the trade agreement was realized in early 2020, this conflict still continued until the emergence of a new disease COVID-19 that hampered investment, global economic growth and capital markets in Indonesia (Kumparan.com, 2019). Is this the condition of the Indonesian economy when COVID-19 has become a health crisis that has shaken the national financial aspect until it is declared a pandemic (Singh, Dhall, Narang, and Rawat, 2020). Not wanting to be affected further, the Indonesian government directly optimizes national financial conditions to suppress the rate of transmission of COVID-19. One of them is the mutual cooperation vaccine that can contribute positively to the movement of the community's economy. The COVID-19 vaccine of choice for the Indonesian Ministry of Health is a Sinovac vaccine originating from China. The Sinovac vaccine is given a second time because the Sinovac vaccine can work to prevent a small part of the virus so that the immunization system is able to detect the source of the disease. The presence of the first COVID-19 vaccination process in Indonesia was carried out on January 13, 2021 with President Joko Widodo as the recipient of the first injection (Saptoyo, 2021). This vaccination process is also carried out simultaneously to all Indonesian citizens by giving both doses of vaccine to increase the body's immune system and ward off subsequent infections (CNN Indonesia, 2020). Figure 1 shows that the COVID-19 vaccination in Indonesia was also able to penetrate 157,000,000 people with the first injection of 57 million and the second of 100 million until the end of October 10, 2021 (Indonesian Ministry of Health, 2021).

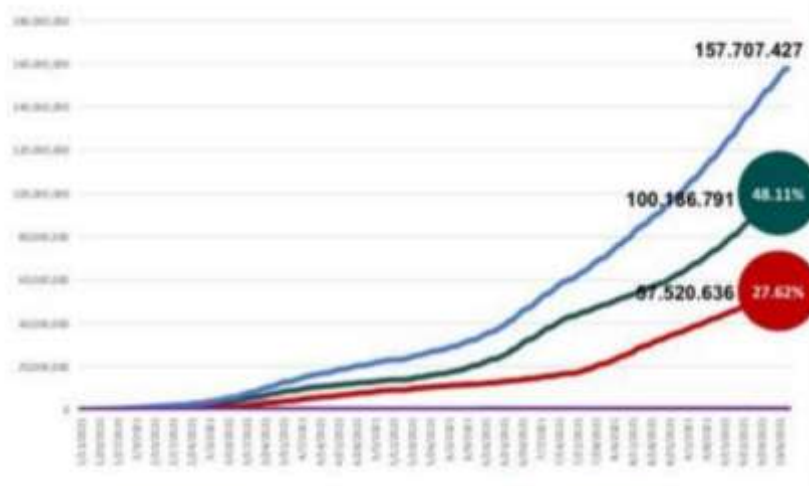


Figure 1. Development of National Vaccination

(Source: Ministry of Health, 10 October 2021)

The success of the COVID-19 vaccination program has encouraged investors to be optimistic in seeking information about the increase in the share price of the related company before buying or selling shares. The influence of this information cannot be separated from activities in the capital market (Lee and Setiawati, 2021). If investors want to focus on the company's stock returns, then the implementation of this vaccination will increase the company's profitability. The greater the level of profitability, the greater the effect on the level of stock returns, the greater the number of purchases of shares in stock trading activities, which in the end investors will invest in the company they choose (Saputra et al., 2021).

Several previous studies have been conducted regarding the impact of the COVID-19 outbreak on the stock market, although there are limited studies on the performance of the Indonesian capital market after the COVID-19 vaccination. Therefore, the author would like to describe how the impact of the COVID-19 vaccine on stock purchases in Indonesia, what are the recommendations from the stock market for the government, and what solutions are offered regarding stock price information for companies and investors. This research is divided into five parts, namely: 1. Indonesia's economic growth at the beginning of the COVID-19 pandemic, 2. vaccine sentiment can boost the JCI level, 3. review of increasing share purchases, 4. potential stock issuers that are right after vaccination, and 5. development future research. This research can also be a summary of how vaccine development can boost economic recovery and increase investor confidence in the stock market.

2. Results and Discussion

2.1 Characteristics of Respondents

Indonesia's economic growth at the beginning of the COVID-19 pandemic

From BPS data for 2020, Indonesia's economy in 2019 as measured by Gross Domestic Product (GDP) at current prices reached Rp15 833.9 trillion and GDP per capita reached Rp59.1 million or US\$4 174.9. This can be seen by the fact that Indonesia's economic growth before COVID-19 in 2014-2019 tends to be stable with a GDP percentage of 4.97% - 5.20% as described in Table 1. Reported from a press release on the IDX website, Sadono, (2021) stated that throughout 2020, the growth in the number of new investors grew to reach 53.47% of the total number of investors in 2019.

Table 1. Economic Growth in 2014-2020 (Percent, YoY)

	2014	2015	2016	2017	2018	2019-1	2019-2	2019-3	2019-4	2020-1
gross domestic product (PDB)	5,00	4,90	5,00	5,10	5,20	5,07	5,05	5,02	4,97	2,97

However, the COVID-19 pandemic has affected the dynamics of the stock market (He et al., 2020; Junaedi and Salistia, 2020; Liu et al., 2020). caused the stock market in Indonesia to experience a significant decline in economic growth (Collins, 2020) to 2.97% in the first quarter of 2020. The decline was caused by the COVID-19 pandemic in 2020 which had implications for economic

activity which led to a decline in stock prices in the market. Indonesian capital, which leads to inefficiency in the stock market (Lalwani and Meshram, 2020). The decline in stock prices also affected the JCI trading transactions as well as share purchase transactions by investors, which will be discussed next.

Due to the decline in the stock market, economic emergencies often affect investor behavior and sentiment, which in turn leads to stock prices (He, Sun, Zhang, and Li, 2020). The economic emergency in question is the imposition of unprecedented Community Activity Restrictions (PPKM), investors not only have difficulty assessing and predicting with certainty the impact of existing events related to stock prices (Haroon and Rizvi, 2020). However, investors also want to sell their share ownership (Kusnandar and Bintari, 2020) due to a negative capital adequacy ratio (CAR) signal (Khatatbeh, 2020). So this can have a negative impact on the capital market and investors in making investment decisions (Pitaloka et al., 2020).

2.2 Vaccine sentiment can boost the JCI level

Following the decline in the stock market in Indonesia, along with the increase in the total number of COVID-19 cases, which has passed the 500,000 positive cases as of November 2020, which has resulted in the Jakarta Composite Index (JCI) trading transactions in the stock market constantly fluctuating. This is in line with Schiller & Malkiel's (2020) research regarding unusual behavior in the capital market during the pandemic. A new finding from this research is that the irrational movements that occur in the market are very erratic and it cannot be stated that the Indonesian stock market is also inefficient in stock movements.

In the aspect of national finance in the midst of the COVID-19 pandemic, Indonesian investors must be careful in adding a holistic and diversified stock investment portfolio because stock exchanges across the world, on average, have not only experienced a decline in global stock price movements. However, the Indonesia Stock Exchange also experienced a decline in the JCI in 2020, although it only strengthened once in several periods and a temporary freeze on trading in the Indonesian capital market (IDX 2020). Seeing this decline, the Minister of Finance predicts a decline in the national economy to minus 2 percent in the third quarter of 2020, which will eventually lead to a prolonged recession. This is evident from the JCI data for 2019-2020 which shows a slowdown in national economic growth as shown in Figure 2



Figure 2. JCI Movement Growth

(Source: JCI, 2020)

According to the graph, it is very clear how the JCI has fallen due to the COVID-19 storm. Throughout 2019, the JCI movement was in the range above the 6,500 level, but when the COVID-19 virus was detected in the first quarter of 2020, the JCI dropped to 1,761 points to the level of 4,539. This condition continues until the end of the 3rd quarter of 2020. From the other side, the arrival of this vaccine has begun to be distributed to the Indonesian people, which is a positive effect of the JCI movement which seems to be appreciated by market players and Indonesian investors in 2020. This vaccine effect encourages the occurrence of JCI movement in the 4th quarter of 2020 strengthened again by 23% to the level of 5,979 at the close of trading.

The contrast with the Bareksa website as of December 2020 shows that stock-based investments, including equity mutual funds, have strengthened 9.66 percent in the past month. In addition to vaccine sentiment, a number of sentiments also contributed to the JCI's performance, namely the United States election, the implementation of the omnibus law and the confidence of foreign investors. Reported from the website, the following is a data graph of the movement of the JCI and the stock mutual fund index for 1 month as described in Figure 3 below.



Figure 3. Graph of JCI Movement and Stock Mutual Fund Index

(Source: Bareksa, 2020)

2.3 Overview of the increase in share purchases

Not only did foreign investors hunt for domestic stocks by recording net buys - buying transactions larger than selling transactions in all markets were able to penetrate the value of Rp 432.80 billion according to the JCI movement, local investors were even more aggressive in buying shares to get profits in the form of capital gains and dividends. The presence of this vaccine pushed up the stock price in the JCI, which in turn had an effect on increasing share purchases as shown in Table 2.

Table 2 Total Purchase of Shares for the Last 3 Years

Number of Shares Purchased for the Last 3 Years			
Period	Volume	Value	Frequency
2018	2.983.533,13	2.047.354,54	93.593,30
2019	3.680.110,00	2.237.370,16	117.182,24
2020	1.149.787,98	1.065.942,08	75.551,52

(Source: OJK, 2020)

The table above shows that the number of share purchases, both in volume, value and frequency from 2018 – 2019 was higher than in 2020 due to this pandemic. The decrease in transaction volume was followed by a decrease in the value of the shares traded, an increase in cases occurring in financial institutions, such as the dissolution and liquidation of six Minna Padi Aset Manajemen mutual fund products, allegations of corruption at Asuransi Jiwasraya involving a number of investment managers, and allegations of corruption at Asabri. (IDX, 2020). Not only that, the decline in share volume was also influenced by various stock investment risks, namely interest rate risk, liquidity and foreign exchange.

This risk can be minimized by analyzing securities and portfolio strategies to make decisions in choosing which stocks to buy for the long term (Bodie, Kane, & Marcus, 2009). One analysis that is widely used in the Indonesian capital market is fundamental analysis which focuses on the intrinsic value of stocks with financial data, ratios and company performance (Ross, Westerfield, and Jordan, 2016).

In addition to fundamental analysis, investors can take further action by analyzing the issuer's stock technical analysis, issuer's stock portfolio and seeking the latest information on issuers related to the company's financial condition. Investing in stocks is of course also affected by the risk of reducing asset value (capital loss) which is a market risk caused by the fluctuations in the JCI during this pandemic. To avoid this risk, investors do not want to take the risk by buying less risky stocks for a certain rate of return (Markowitz, 1952).

Despite the decline in the number of share purchases in 2020, the presence of stock exchange member securities companies (AB) was welcomed because they had succeeded in achieving stock transactions per January - September 2020. Based on data compiled from the Indonesia Stock Exchange (IDX), RTI and HOTS (Home Online Trading system), it has been recorded that the stock market transaction value also fell 16.01% to Rp 1,443 trillion from Rp 1,718 trillion amid the correction of the JCI index. Likewise, the market share of the JCI in terms of the total transaction value of investors (transaction value) to the total transaction value of all investors in Indonesia is 7.98%. Figure 3 shows that there is a transaction value of PT. Mirae Asset Sekuritas Indonesia excelled as the best securities company in the capital market in two periods with a percentage of 46.67%, volume of 36.27% and frequency of 71.84%.

No.	Kode Broker	Nama Broker	Nilai (Rp triliun)			Volume (miliar lot saham)			Frekuensi (juta kali)		
			9M/2020	9M/2019	Δ (%)	9M/2020	9M/2019	Δ (%)	9M/2020	9M/2019	Δ (%)
1	YP	Mirae Asset Sekuritas Indonesia, PT	231.13	157.58	46.67%	4.17	3.06	36.27%	34.23	19.92	71.84%
2	CC	Mandiri Sekuritas, PT	229.64	288.52	-20.41%	2.24	1.58	41.77%	17.62	11.58	52.16%
3	CS	Credit Suisse Sekuritas Indonesia, PT	144.38	120.11	20.21%	0.55	0.43	27.91%	7.88	3.97	98.49%
4	AK	UBS Sekuritas Indonesia, PT	143.912	141.72	1.55%	0.6	0.44	36.36%	6	5.34	12.36%
5	ZP	Maybank Kim Eng Sekuritas Indonesia, PT	141.42	97.39	45.21%	0.8	0.7	14.29%	7.48	4.24	76.42%
6	YU	CGS-CIMB Sekuritas Indonesia, PT	138.24	144.54	-4.39%	0.89	1.01	-11.88%	6.39	5.18	23.36%
7	PD	Indo Premier Sekuritas, PT	130.38	98.64	32.18%	1.8	1.15	56.52%	19.24	10.77	78.64%
8	KZ	CLSA Sekuritas Indonesia, PT	121.4	120.81	0.49%	0.54	0.43	25.58%	3.6	3.39	6.19%
9	RX	Macquarie Sekuritas Indonesia, PT	120.53	118.28	1.90%	0.37	0.31	19.35%	2.39	2.16	10.65%
10	MS	Morgan Stanley Sekuritas Indonesia, PT	111.1	132.95	-16.43%	0.36	0.33	9.09%	2.45	2.52	-2.78%
11	XA	NH Korindo Sekuritas Indonesia, PT	12.82	67.02	-80.87%	0.38	5.24	-92.75%	1.54	2.56	-39.84%
			1443	1718.11	-16.01%	17	27.12	-37.32%	106.6	83.23	28.08%

Sumber: IDX, RTI, HOTS

Figure 3. List of Stock Brokers in Indonesia

(Source: CNBC, 2020)

2.4 The right stock potential of the issuer after vaccination

Despite the great pressure from the decline in share buying by investors that occurred in 2020, Phil (2020) said that during the COVID-19 pandemic is the most appropriate time to invest or buy shares, where many people sell domestic shares for profit if every decision made taken by investors based on stock price movements and careful calculations (Tambunan, 2020) so that stock prices become cheaper. Therefore, investors must anticipate carefully in choosing which sector to target. In this case, investors need to analyze fundamental analysis so as not to be wrong in placing funds, and diversify stocks to reduce the risk of losses that are too large in investing in stocks. Fundamental analysis is influenced by various factors, such as macro analysis related to the economic condition of a country, sectoral analysis and micro analysis of a company related to the company's financial performance (Wira, 2017).

After the vaccination, the movement of the capital market in Indonesia was filled with several issuer stocks that were right for investors to invest in shares. One of the stock recommendations to be chosen by investors is the stock of pharmaceutical issuers, which is increasing in line with the prolonged Covid-19 pandemic, which will increase demand for pharmaceutical products. Based on IDX data in 2020, the following is a list of names and codes of pharmaceutical stocks that can be selected, including:

Table 3. Names and Stock Codes of Post-vaccination Pharmaceutical Issuers

No	Stock Name	Stock code
1	Itama Ranoraya	IRRA
2	Sido Herbal and Pharmaceutical Industry Appears	SIDO
3	Pharmaceutical Chemistry	KAEF
4	Darya-Varia Laboratoria	DVLA
5	Phapros	PEHA
6	Indofarma	INAF
7	Pyridam Farma	PYFA
8	Merck	MERK

(Source: OJK, 2020)

Shares of pharmaceutical issuers following the COVID-19 vaccine produced by Sinovac Biotech Ltd arrived in Indonesia for the third phase of clinical trials in Indonesia. As a holding company, PT. Bio Farma (Persero) is in charge of the distribution and production of this vaccine while waiting for the approval of the Food and Drug Supervisory Agency (BPOM) for the availability of raw materials. Based on OJK data (2020), the two pharmaceutical stocks that are most in demand by investors are KAEF shares, which fell 2.65 points or 5.17 percent to the level of IDR 4,860 after previously opening up IDR 5,200 per share. Meanwhile, INAF shares also weakened 270 points or 5.53 percent to the level of Rp4,610 per share.

In addition to stocks of pharmaceutical issuers, there are two vaccine candidates with effectiveness above 90%, namely the Pfizer vaccine and the Moderna vaccine, which caused an increase in stock price sentiment for the industrial and manufacturing sectors. One of them is the stock of a giant coal issuer that managed to go green on the IDX trading (CNBC, 2020). Based on CNBC data, the following is a list of names and stock codes for coal companies to choose from, including.

Table 4. Names and Stock Codes of Post-vaccination Coal Issuers

No	Stock Name	Stock code
1	Indika Energy	INDY
2	Indo Tambangraya Magnificent	ITMG
3	Acid Hill	PTBA
4	Petrosea	PTRO
5	Adaro Energy	ADRO
6	Prosperous World Delta	DOID

(Source: OJK, 2020)

OJK research in 2020 revealed that there were three shares of coal issuers whose prices were able to soar, namely PT Indika Energy Tbk (INDY) which managed to fly 10.05% to the level of Rp. 1,150 per unit. Another metal stock with a big increase was PT Indo Tambangraya Megah Tbk (ITMG) which managed to fly 8.42 percent to Rp 9,975 per unit. Meanwhile, for Pelat Merah

coal shares, PT Bukit Asam Tbk (PTBA) managed to rise 5.21% to a price level of Rp 2,220 per unit. If the issuer's shares are increasingly in demand by investors to buy shares, there will be an increase in the total transactions of high-risk shares in stock trading in the Indonesian capital market..

2.5 Development for future research

Research on the COVID-19 vaccine sentiment continues to develop to examine the factors that influence the purchase of shares by investors on the condition of their future stock investment and the risk of their investment. Among them are the fundamental condition of the issuer's shares, the law of supply or demand, interest rates, foreign exchange, foreign funds on the stock exchange, news and rumors related to stock price movements and the JCI (Sartono, 2005). These factors must be seen from the three forms of capital market efficiency according to Bodie, Kane and Marcus (2013), namely weak form efficiency, semi strong efficiency and strong form efficiency related to national and international financial conditions. stock market in Indonesia.

Subsequent research also takes a long time to answer how far vaccine sentiment is and its impact on stock purchases or investment even though vaccinations have been rolled out as well as the announcement of various new variants, namely Alpha, Beta, Gamma, Delta, Epsilon, Zeta, Eta viruses (Indonesia Baik, 2021) until the outbreak of the Omicron virus in early 2022. The research methodology used is a study of media coverage, an index of concern, market and stock brokerage performance, the performance of issuer's stock transaction value and interviews with experts. This is followed by the results of the research that must be developed regarding the impact of the COVID-19 vaccine on stock investment, recommendations from the stock market and the JCI for the government, and what solutions are offered related to share price information related to issuers.

3. Conclusion

The conclusion from the contents of the paper that the author puts in this final report intends to add knowledge and insight related to the research. The COVID-19 pandemic has slowed down the Indonesian economy and stock market and has also resulted in a weakening of the JCI value performance at the end of the third quarter and a decrease in the number of share purchases by investors in 2020. The presence of the COVID-19 vaccine was welcomed by the strengthening of the JCI level and the value of the stock mutual fund index in the 4th quarter of 2020. This is supported by the increase in the JCI market share to the total transaction value of all investors and the high interest of investors in placing their trust in the two majority shares of issuers, namely pharmaceutical issuers and coal issuers. If the COVID-19 pandemic does not end, investors should be careful in doing 2 things, namely: (1) fundamental analysis of which issuer shares to buy based on company prospect data and future stock return data; (2) stock diversification of issuers "Don't put your eggs in one basket" with the aim of minimizing the risk of loss in stock investments as described by Buffett and Cunningham (2019). In closing, this study only discusses the increase in the number of post-vaccination stock purchases with the four impacts on the capital market

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