

HEALTH STOCK REACTION TO COVID 19 : INDONESIA CASE

¹Adrianna Syariefur Rakhmat, ²Mohammad Hatta Fahamsyah

^{1,2}Fakultas Ekonomi dan Bisnis, Universitas Pelita Bangsa

ARTICLE INFO

Keywords:

Covid 19
Stock Price
Stock Volume
Stock Return

E-mail:

adriannasyariefur@pelitabangsa.co.id

ABSTRACT

At the beginning of 2020, the world was shocked by the emergence of a new disease which had evolved into the Covid 19 Pandemic for its rapid spread and relatively high death rate. The Covid-19 pandemic created an uncertainty. This uncertainty can affect negatively on stock, that is, increasing uncertainty will reduce the stock price, volume and return. This research is a quantitative study that measures the response of the health stock sector to the COVID-19 pandemic. The health sector stocks that were sampled were health service providers, especially hospitals. The amount of data observed was 60 days before the announcement of covid and 60 days after the announcement of covid. Meanwhile the analysis technique that will be used is the Paired Sample T Test. The result of this research conclude that the stock price shows a significant difference between before and after the announcement of covid-19 in Indonesia, while the stock returns show insignificant differences, and the stock volume showed mixed results .

Copyright © 2023 Economic Journal. All rights reserved.

is Licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

1. INTRODUCTION

At the beginning of 2020, the world was shocked by the emergence of a new disease which had evolved into the Covid 19 Pandemic for its rapid spread and relatively high death rate [1]. As a result, the government made a lockdown policy to slow down people's movements so that disease transmission could be reduced. As a result, the economy experienced disruption which resulted in the death of several industries and an increase in the unemployment rate [2]

The impact of the Covid 19 pandemic on the economy is divided into several stages, namely short term, medium term and long term [3]. The short-term impact on the economy is at the micro level, namely a decrease in production activity on the supply side and consumption on the demand side as a result of the implementation of the lockdown. Examples are the agriculture, food industry, property, transportation, finance, trade, services and investment sectors which immediately responded quickly as a result of the pandemic on these industries [4]. The medium-term impact on the economy is at the macro level, namely reduced aggregate demand and supply, reduced inflation, decreased public income, increased unemployment, exchange rate volatility and increased financial risk. Meanwhile, the long-term impact is still at the macro level, namely the decline in economic activity that triggers a recession [3].

While national economic growth has decreased by -2.07 percent in 2020, economic growth at the sectoral level has not decreased in all sectors. The sector that experienced the highest growth rate in 2020 compared to the previous year was the Health and Social Services Sector with 11.56 percent, then the information and communication sector with 10.61 percent, and the chemical, pharmaceutical and traditional medicine industries with 9.39 percent.

The same thing also happened to the Indonesian Capital Market which provided an immediate reaction through a significant difference in stock trading volume [5]. While the Composite Stock Price Index (IHSG) in 2020 decreased by 1.31 percent. The health sector index experienced an increase of 23.33 percent in 2020 and is ranked third with the best index growth after the mining and technology sector index.

This research is different from previous research, which focuses more on the sectoral level on the health sector group of stocks which are believed to have different performance from the majority of other stock sectors

2. METHOD

This research is a quantitative study that measures the response of the health stock sector to the COVID-19 pandemic. The health sector stocks that were sampled were health service providers, especially hospitals, namely Medikaloka Hermina Tbk (HEAL), Mitra Keluarga Karyahealth Tbk (MIKA), Royal Prima Tbk (PRIM), Sarana Meditama Metropolitan Tbk (SAME), Siloam International Hospitals (SILO) and

Sejahterarraya Anugrahjaya Tbk (SRAJ)]. This study uses secondary data sourced from the Indonesia Stock Exchange. The variables that serve as research indicators are stock prices, stock volume, and stock returns. The amount of data observed was 60 days before the announcement of covid and 60 days after the announcement of covid. Meanwhile the analysis technique that will be used is the Paired Sample T Test, which calculates the significance of the difference between stock prices, stock volume, and stock returns between before and after the announcement of COVID-19 in Indonesia on March 2, 2020.

3. RESULT AND DISCUSSION

Result

To support the analysis, the researcher used Microsoft Excel to conduct a paired-difference t-test. But before that, the researcher first presented a descriptive analysis using the difference in average stock prices, stock volume, and stock returns between before and after the announcement of Covid-19.

Table 1. The Difference in Average Stock Price, Volume and Return

STOCK	STOCK PRICE		VOLUME		RETURN	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
MIKA	2582,667	2056,000	10,173	3,215	-0,001	0,001
PRIM	326,567	294,433	215,186	113,957	0,004	0,001
SAME	143,483	84,661	234,844	3758,241	-0,006	-0,007
HEAL	690,833	517,200	0,882	4,248	-0,003	0,002
SRAJ	255,900	165,017	86,476	98,417	-0,004	-0,006
SILO	847,398	674,543	3779,278	953,787	-0,001	-0,001

In the table below it can be seen that the average stock price of health service providers shows a lower stock price after the announcement of Covid-19 in Indonesia. However, stock volume showed mixed results, where the average volume of SAME, HEAL, and SRAJ stocks after the announcement of COVID-19 was more than before the announcement of COVID-19. Likewise, stock returns show varied results where the average return on MIKA and HEAL stock after the announcement of Covid-19 was more than before the announcement of Covid-19.

Table 2. The Difference in Stock Price

STOCK	STOCK PRICE		
	Std Dev	t stat	sig
MIKA	256,05	15,93	significant
PRIM	47,99	5,19	significant
SAME	13,09	35,63	significant
HEAL	94,09	14,30	significant
SRAJ	26,55	26,51	significant
SILO	57,49	23,29	significant

The stock price shows a significant difference between before and after the announcement of covid-19 in Indonesia. This can be seen by comparing the t statistic as attached with the t table for n=60 with a significance level of 0.05 which is 2.0003. If the calculated t statistic is more than the t table value, it can be concluded that there is a significant difference.

Table 3. The Difference in Stock Volume

STOCK	VOLUME		
	Std Dev	t stat	sig
MIKA	5,31	10,15	significant
PRIM	1418,00	0,55	insignificant
SAME	8095,88	-3,31	significant
HEAL	4,89	-5,33	significant
SRAJ	255,03	-0,36	insignificant
SILO	4760,62	4,60	significant

Stock volume showed mixed results, where MIKA, SAME, HEAL, and SILO stocks showed significant differences between before and after the announcement of Covid-19 in Indonesia. This can be seen by comparing the absolute of t statistic as attached with the t table for n = 60 with a significance level of 0.05 is 2.0003. If the calculated t statistic is more than the t table value, it can be concluded that there is a significant difference.

Table 4. The Difference in Stock Return

STOCK	Std Dev	RETURN	
		t stat	sig
MIKA	0,06	-0,36	insignificant
PRIM	0,12	0,20	insignificant
SAME	0,07	0,09	insignificant
HEAL	0,04	-0,89	insignificant
SRAJ	0,08	0,22	insignificant
SILO	0,05	0,04	insignificant

Stock returns show insignificant differences between before and after the announcement of Covid-19 in Indonesia. This can be seen by comparing the absolute value of t stat as attached with the t table for n=60 with a significance level of 0.05 is 2.0003. If the calculated t statistic is less than the t table, it can be concluded that there is no significant difference.

3.2 Discussion

Researchers assume that the impact of Covid-19 on the capital market will go through several channels, such as increased risk and uncertainty. As for the capital market proxies themselves, they can be in the form of stock indexes and prices, as well as stock returns.

The Covid-19 pandemic created a new, unexpected atmosphere, so it can be categorized as uncertainty. This uncertainty can certainly affect the rate of return on stocks negatively, that is, increasing uncertainty will reduce the rate of return on stocks [6]. The phenomenon of the Covid-19 pandemic has a negative effect on the economy, including in the Capital Market [7] [8]. It is believed that the negative effects caused by Covid-19 also came from the implementation of lockdowns on various community activities [9].

Covid-19 that occurred in China created an unstable transmission process for the Capital Market [10]. The Capital Market responds directly to the Covid-19 pandemic at different levels of speed [11]. This is similar to the response of investors who are more sentimental towards Covid-19, because it is associated with a high level of volatility in the stock market as well [12]. This means that with increasing uncertainty and volatility, of course, this will also increase risk

Along with the positive shock through vaccination, the response of the capital market to Covid depends on the herd mentality of the market which is positively correlated with herd immunity [13]. In addition to vaccination activities, the government's ability to increase the level of protection against the capital market will also reduce market volatility as well [12]. If the Covid-19 mitigation process is successful, the number of recovered patients will be a positive signal for the capital market [7]. Likewise, the capital market will respond positively to the lockdown easing policy [9].

4. CONCLUSION

The stock price shows a significant difference between before and after the announcement of covid-19 in Indonesia. The Stock volume showed mixed results, where MIKA, SAME, HEAL, and SILO stocks showed significant differences between before and after the announcement of Covid-19 in Indonesia The Stock returns show insignificant differences between before and after the announcement of Covid-19 in Indonesia.

REFERENCES

- [1] Susilo et al, "Coronavirus Disease 2019: Review of Current Literatures," *J. Penyakit Dalam Indones.*, vol. 7, no. 1, pp. 45-69, 2020, [Online]. Available: <http://jurnalpenyakitdalam.ui.ac.id/index.php/jpdi/article/view/415>.
- [2] P. R. Jena, R. Majhi, R. Kalli, S. Managi, and B. Majhi, "Impact of COVID-19 on GDP of major economies: Application of the artificial neural network forecaster," *Econ. Anal. Policy*, vol. 69, pp. 324-339, 2021, doi: 10.1016/j.eap.2020.12.013.
- [3] S. Barua, "Understanding Coronanomics: The Economic Implications of the Coronavirus (COVID-19)

- Pandemic," *SSRN Electron. J.*, no. April, pp. 1-44, 2020, doi: 10.2139/ssrn.3566477.
- [4] Y. Trisnowati and A. Muditomo, "COVID-19 and Stock Market Reaction in Indonesia," *J. Account. Invest.*, vol. 22, no. 1, pp. 23-36, 2021, doi: 10.18196/jai.v22i1.8859.
- [5] Azwar et al, "NDONESIA'S CAPITAL MARKET REACTION DURING THE COVID-19 PANDEMIC AT MANUFACTURING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE," *J. Akunt. dan Pajak*, vol. 22, no. 2, pp. 766-776, 2021.
- [6] L. Xu, "Stock Return and the COVID-19 pandemic: Evidence from Canada and the US," *Financ. Res. Lett.*, vol. 38, no. July 2020, p. 101872, 2021, doi: 10.1016/j.frl.2020.101872.
- [7] N. Nurcahyono, A. N. Hanum, and F. Sukesti, "The COVID-19 Outbreak and its Impact on Stock Market Returns: Evidence From Indonesia," *J. Din. Akunt. dan Bisnis*, vol. 8, no. 1, pp. 47-58, 2021, [Online]. Available: <https://jurnal.unsyiah.ac.id/JDAB/index>.
- [8] D. Rahmayani and S. Oktavilia, "Does the Covid-19 pandemic affect the stock market in Indonesia?," *J. Ilmu Sos. dan Ilmu Polit.*, vol. 24, no. 1, pp. 33-47, 2020, doi: 10.22146/JSP.56432.
- [9] M. Scherf, X. Matschke, and M. O. Rieger, "Stock market reactions to COVID-19 lockdown: A global analysis," *Financ. Res. Lett.*, vol. 45, no. June 2021, p. 102245, 2022, doi: 10.1016/j.frl.2021.102245.
- [10] S. Contessi and P. De Pace, "The international spread of COVID-19 stock market collapses," *Financ. Res. Lett.*, vol. 42, no. January, p. 101894, 2021, doi: 10.1016/j.frl.2020.101894.
- [11] C. Jin, X. Lu, and Y. Zhang, "Market reaction, COVID-19 pandemic and return distribution," *Financ. Res. Lett.*, vol. 47, no. PB, p. 102701, 2022, doi: 10.1016/j.frl.2022.102701.
- [12] Y. L. Hsu and L. Tang, "Effects of investor sentiment and country governance on unexpected conditional volatility during the COVID-19 pandemic: Evidence from global stock markets," *Int. Rev. Financ. Anal.*, vol. 82, no. April, p. 102186, 2022, doi: 10.1016/j.irfa.2022.102186.
- [13] D. H. Vo, C. M. Ho, and T. H. N. Dang, "Stock market volatility from the Covid-19 pandemic: New evidence from the Asia-Pacific region," *Heliyon*, vol. 8, no. 9, p. e10763, 2022, doi: 10.1016/j.heliyon.2022.e10763.