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JOURNAL	International Journal of Innovative Technologies in Economy
p-ISSN	2412-8368
e-ISSN	2414-1305
PUBLISHER	RS Global Sp. z O.O., Poland
ARTICLE TITLE	THE IMPACT OF THE COVID-19 PANDEMIC ON THE STOCK PRICES OF MANUFACTURING COMPANIES ON THE INDONESIA STOCK EXCHANGE
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ARTICLE INFO	Iqbal Rafikhul Fauzan, Miko Katon Kurniawan, Meythi Meythi. (2024) The Impact of the COVID-19 Pandemic on the Stock Prices of Manufacturing Companies on the Indonesia Stock Exchange. <i>International Journal of Innovative Technologies in Economy</i> . 1(45). doi: 10.31435/rsglobal_ijite/30032024/8101
DOI	https://doi.org/10.31435/rsglobal_ijite/30032024/8101
RECEIVED	22 December 2023
ACCEPTED	29 January 2024
PUBLISHED	31 January 2024
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THE IMPACT OF THE COVID-19 PANDEMIC ON THE STOCK PRICES OF MANUFACTURING COMPANIES ON THE INDONESIA STOCK EXCHANGE

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DOI: https://doi.org/10.31435/rsglobal_ijite/30032024/8101

ARTICLE INFO

Received 22 December 2023

Accepted 29 January 2024

Published 31 January 2024

KEYWORDS

Covid-19, Manufacturing Company, Stock Price Change.

ABSTRACT

The coronavirus, or COVID-19, is caused by the SARS-CoV-2 virus, first discovered in China in late 2019 and as of June 2021. Since then, the virus has spread worldwide. Indonesia has reported more than 31,000 cases of COVID-19 (Gugus Tugas Percepatan Penanganan COVID-19, 2020), making it the second-highest country in ASEAN, according to CNN Indonesia (2022). The global tally has surpassed 6.7 million cases, with over 395,000 fatalities. This pandemic has not only affected the health sector but has also impacted various other economic sectors, including the stock market. Developing countries like Indonesia have felt the repercussions, evident in the movements of the Composite Stock Price Index (IHSG). Studying the IHSG's trends before and during the COVID-19 pandemic is crucial as a guide for governments and companies in managing foreign fund flows, maintaining index stability, and preserving economic value (Nurmasari, 2020). In this context, the Indonesia Stock Exchange (PT. Bursa Efek Indonesia) and the Financial Services Authority (Otoritas Jasa Keuangan or OJK) have introduced new policies to prevent a decline in the capital market caused by Covid-19. The decision by the Indonesia Stock Exchange states that these measures are taken to reduce the spread of the virus.

Citation: Iqbal Rafikhul Fauzan, Miko Katon Kurniawan, Meythi Meythi. (2024) The Impact of the COVID-19 Pandemic on the Stock Prices of Manufacturing Companies on the Indonesia Stock Exchange. *International Journal of Innovative Technologies in Economy. 1(45)*. doi: 10.31435/rsglobal_ijite/30032024/8101

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Introduction.

The coronavirus, or COVID-19, is caused by the SARS-CoV-2 virus, first discovered in China in late 2019 and as of June 2021. Since then, the virus has spread worldwide. Indonesia has reported more than 31,000 cases of COVID-19 (Gugus Tugas Percepatan Penanganan COVID-19, 2020), making it the second-highest country in ASEAN, according to CNN Indonesia (2022). The global tally has surpassed 6.7 million cases, with over 395,000 fatalities. This pandemic has not only affected the health sector but has also impacted various other economic sectors, including the stock market. Developing countries like Indonesia have felt the repercussions, evident in the movements of the Composite Stock Price Index (IHSG). Studying the IHSG's trends before and during the COVID-19 pandemic is crucial as a guide for governments and companies in managing foreign fund flows, maintaining index stability, and preserving economic value (Nurmasari, 2020). In this context, the Indonesia Stock Exchange (PT. Bursa Efek Indonesia) and the Financial Services

Authority (Otoritas Jasa Keuangan or OJK) have introduced new policies to prevent a decline in the capital market caused by Covid-19. The decision by the Indonesia Stock Exchange states that these measures are taken to reduce the spread of the virus.

THEORY AND HYPOTHESIS DEVELOPMENT.

Signaling Theory Brigham & Houston (2011) provided an explanation of Signaling Theory, describing how corporate management perceives its future growth prospects. This perception, in turn, influences how potential investors react to the company. The concept of signals refers to managerial information that synthesizes their strategies to fulfill the company owner's goals; this information serves as crucial cues for investors and businesses when making investment decisions. According to the Signaling Theory proposed by Spence (1978), information senders emit signals that reflect the company's conditions, thus benefiting investors. The Signaling Theory can also be seen as a means to mitigate the increased business risks that may be perceived negatively by potential investors and affect their investment decisions.

Panic Selling When an investor sells their entire investment in large quantities, it is termed panic selling. Investors often engage in this behavior when they want to exit their investments quickly without considering the selling price. Unfortunately, such a strategy can become problematic when based on emotions and fear. Instead of conducting a thorough evaluation of fundamentals, these actions can lead to issues. This phenomenon has prompted some major exchanges to implement trading restrictions. According to Akilesh (2019), the aim of these initiatives is to reduce panic selling, provide market participants with an opportunity to gather crucial sales information, and enhance market stability.

Stock Market Stocks represent an individual's or organization's participation or ownership in an investment, indicating the amount invested in a business (Heertje, 2004). The stock market is where businesses and governments can exchange securities and raise long-term capital (Petros, 2012). Most people agree that the stock market is a crucial component of a country's economy (Filbert, 2017).

Composite Stock Price Index (IHSG) According to Yunita & Robiyanto (2018), the Composite Stock Price Index (IHSG) is a compilation of stock price data calculated and processed into a trend line. Without subjective evaluations, this trend line helps compare events related to changes in stock prices over time. IHSG represents all stocks listed on the Indonesia Stock Exchange (BEI). By monitoring the movement of BEI stock prices, both common and preferred stocks, one can gain insights into the stock price history. As a stock price index, IHSG indicates changes in stock prices (Tandelilin, 2017). The IHSG, also known as the composite index, is created by including all stocks in the calculation. It was first released on April 1, 1983, with the aim of recording changes in stock prices (Indonesia Stock Exchange, 2020). According to this theory, IHSG reflects changes in stock prices in the portfolio. Therefore, IHSG serves as a measure to assess the effectiveness of stocks on the exchange during a specific period.

Factors Influencing Stock Price Index Zulfikar (2016) states that two main sources influencing stock prices are internal and external factors of the company. Internal factors encompass a range of announcements associated with marketing, production, and sales, including alterations in pricing, product recalls, production updates, product safety notifications, and sales reports. Announcements of financing, including those related to debt and equity, also affect stock prices. (3) Announcements from the management board, covering changes in directors, company management, and organizational structure. (4) Announcements about takeovers and diversification, such as merger reports, equity investments, takeovers and acquisitions, and divestment reports. (5) Announcements about investments, such as factory expansions, research and development, and closures of other operations. (6) Announcements about employment. (7) When businesses publish financial reports, they.

Unless explicitly stated, it is crucial that these announcements are objective and do not include subjective evaluations. Technology enables a logical and easily understandable flow of information. External factors encompass government declarations regarding modifications in savings and deposit interest rates, inflation, and economic regulations and deregulation. Legal notifications, such as corporate litigation against their executives, and announcements from the securities industry, covering aspects like annual meetings, insider trading, stock prices, and trading restrictions or delays, are also noteworthy. (4) Stock prices on a country's stock exchange can be greatly influenced

by political instability and changes in exchange rates. (5) There are several issues at the national and international levels.

RESEARCH METHOD.

A descriptive methodology is employed in this research to assess the impact of the Covid-19 pandemic on the stock price changes of manufacturing companies listed on the Indonesia Stock Exchange. Providing an objective and in-depth overview of the core issue is the research focus. To ensure clear understanding, every technical abbreviation will be explained upon first use. The research structure adheres to academic standards, including footnotes and consistent citations. By avoiding everyday language and embellishments, the language used is formal, balanced, and precise. To ensure smooth communication, it is crucial to emphasize cause-and-effect relationships among statements. The study employs a quantitative research methodology, gathering secondary data from the closing stock prices of companies listed on the Indonesia Stock Exchange.

Sampling Technique.

There are 193 companies as the population in this study. All citations and footnotes must be consistent, with a clear format, and technical term abbreviations will be explained upon first use. The sample is selected from 50% of continuously operating manufacturing companies listed on the Indonesia Stock Exchange from October 1, 2019, to July 31, 2020. The language used must be formal and objective, devoid of emotion or bias. The text structure will be clear and logical, with a focus on cause-and-effect relationships among statements. The text will be free of grammar, spelling, or punctuation errors, and appropriate technical vocabulary will be applied as needed. Purposive sampling method is used, which selects samples based on specific criteria.

Data Collection Techniques.

Research data was collected five months before the first announcement of the COVID-19 outbreak to the public, from October 2019 to February 2020. Additional data was gathered five months after the pandemic began in Indonesia, from March 2020 to July 2020. The emphasis of this research is on the fluctuations in closing stock prices for every manufacturing company listed on the Indonesia Stock Exchange as of December 31, 2020. All requisite data can be accessed through the official website of the Indonesia Stock Exchange.

Data Analysis Techniques.

To achieve these objectives, this research will conduct Normality Tests and paired-sample t-tests to compare two related sample means. The focus of this study is to objectively examine the stock price variations before and after the announcement of the first positive Covid-19 case in Indonesia, with a specific emphasis on manufacturing companies listed on the Indonesia Stock Exchange (BEI). Throughout the research, technical terminology will be adequately explained, and this report will adhere to a common academic structure and writing style, with consistent and appropriate citations and references. The research steps include:

1. Calculating the monthly average stock prices of companies over a specified period by summing up all daily closing stock prices and dividing them by the number of working days in that month.
2. Determining the monthly average stock prices for companies in the manufacturing industry during the same period.
3. Analyzing the differences in stock prices before and after the announcement of the first confirmed Covid-19 case in Indonesia.
4. Performing the relevant paired-sample t-test to assess the statistical significance of these disparities.

RESULTS AND DISCUSSION.

The results of the descriptive statistical analysis on stock prices of manufacturing companies listed on the Indonesia Stock Exchange for five months before and five months after the announcement of the first positive Covid-19 case in Indonesia are as follows:

Table 1. Descriptive Statistical Test Results for Manufacturing Company Share Prices.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Before	5	204135	255787	237442.00	23700.355
After	5	167127	180155	172311.00	5771.924
Valid N (listwise)	5				

Source: Processed data (2022).

Table 2. Manufacturing Company Stock Price Normality Test Results.

One-Sample Kolmogorov-Smirnov Test			
		Before	After
N		5	5
Normal Parameters ^{a,b}	Mean	237442.00	172311.00
	Std. Deviation	23700.355	5771.924
Most Extreme Differences	Absolute	0.347	0.256
	Positive	0.219	0.256
	Negative	-0.347	-0.185
Test Statistic		0.347	0.256
Asymp. Sig. (2-tailed)		0.049 ^c	0.200 ^{c,d}

Source: Processed data (2022).

The results of the normality test for the paired data comparison before and after the Covid-19 pandemic in the table indicate that the data distribution can be considered normal. This is evidenced by the significance value greater than 0.05, indicating normality in the data.

Hypothesis Testing.

Here are the findings of the data analysis derived from the paired-sample t-test regarding the stock prices of manufacturing firms listed on the Indonesia Stock Exchange. The analysis was carried out over a five-month period spanning before and after the announcement of the first confirmed Covid-19 case in Indonesia.

Table 3. Hypothesis Testing of Stock Prices in the Manufacturing Company Sector Paired Samples Test.

		Paired Differences				t	df	Sig.(2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Before - After	65131.000	29393.001	13144.950	28634.768	101627.232	4.955	4	0.008

Source: SPSS 2022.

According to the data analysis, the significance value (sig) of 0.08 exceeds the alpha significance level (0.05), specifically 0.08 being greater than 0.05. The table indicates a significant difference in stock prices for manufacturing companies in Indonesia for the five months before and after the COVID-19 news. This suggests a substantial difference between the average stock prices before and after the COVID-19 news.

The study by Dewi & Masithoh (2020) also shows a significant difference in stock prices in Indonesia before and after COVID-19. This finding aligns with the present results. Supported by the Paired Samples t-Test, Khoiriah et al. (2020)'s research also indicates that sentiment and news greatly influence market price movements, especially for the top 45 stocks on the Indonesia Stock Exchange (LQ-45). The announcements have the potential to cause significant reactions and stock price declines, as shown in the data table. The first announcement of COVID-19 in March led to a decline in stock prices on the Indonesia Stock Exchange. Investors panicked due to this negative sentiment, reflected in the decrease in the average monthly stock prices. Investors responded by selling many stocks, causing the Composite Stock Price Index (IHSG) to drop by 4.89%, or 205.43 points, to the level of 3,989.52, well below the 4,000 level. To identify the most impacted manufacturing subsector, a specific analysis has been conducted by examining the stock price movements of manufacturing companies in Indonesia for the five months before and after the announcement of Covid-19.

Table 4. Uji t.

Sub sector	t	Sig	Desc
Consumer goods (cosmetics & household necessities)	2.132	0.042	Not Significant
Consumer goods (cigarettes)	2.691	0.014	Not Significant
Consumer goods (food & drinks)	2.711	0.014	Not Significant
Consumer goods (pharmaceuticals)	1.321	0.195	Not Significant
Various industries (automotive & components)	3.811	0.004	Significant
Various other industries	0.623	0.539	Not Significant
Basic & chemical industry (cement)	4.034	0.001	Significant
Basic & chemical industry (ceramics, porcelain and glass)	5.004	0.000	Significant
Basic & chemical industry (plastics and packaging)	0.164	0.872	Not Significant
Basic & chemical industry (animal feed)	3.668	0.002	Significant
Basic & chemical industry (pulp & paper)	4.010	0.001	Significant
Basic & chemical industry (chemistry)	3.585	0.003	Significant

Based on the data analysis in the table, it can be concluded that after the announcement of the coronavirus infection in Indonesia, not all manufacturing subsectors experienced an increase or decrease in stock prices. The table indicates that some subsectors, such as diverse industries (like automobiles and components), basic and chemical industries (such as cement), and other basic and chemical industries, underwent changes in stock prices. On the other hand, half of the subsectors, such as consumer goods, various other industries, and basic and chemical industries (like plastics and packaging), did not experience significant changes in stock prices. Despite significant declines in some subsectors, the subsector data shows that the calculated t-values tend to be positive.

For example, in response to the spread of the coronavirus, the pharmaceutical subsector thrived due to increased demand for medicines, supplements, vitamins, and personal protective

equipment. Because of this fact, investors were interested in investing in the pharmaceutical subsector. Additionally, the Covid-19 pandemic caused panic among investors, ultimately leading them to shift their funds to assets considered safer, such as gold and bonds. Many investors also chose to sell their stocks at lower prices as a way to preserve and protect their assets during the uncertainty caused by the pandemic.

CONCLUSION.

According to this research, the stock prices of manufacturing companies on the Indonesia Stock Exchange differed before and after the emergence of the Covid-19 pandemic in Indonesia. In general, the average stock prices of these manufacturing companies experienced a drastic decline after the pandemic was announced. Some subsectors, such as diverse industries (like automobiles and components), basic and chemical industries (like cement), and other basic and chemical industries, except for plastics and packaging, showed significant fluctuations in stock prices. On the other hand, half of the other subsectors, such as consumer goods, other industries, and consumer goods including plastics and packaging, did not exhibit significant fluctuations in stock prices. Some of these subsectors only experienced a very small decline. Future research may focus more on the factors causing the differences in stock prices before and after the COVID-19 pandemic.

ACKNOWLEDGMENTS.

Researcher would like to express gratitude to Universitas Kristen Maranatha and various parties who have provided support, both morally and materially, enabling the successful implementation of this research project.

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