Analysis Of The Effect Of Covid-19 Vaccine Announcement And Financial Performance On The Stock Price Of The Pharmaceutical Subsector On The Indonesia Stock Exchange

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This study aims to analyze the influence of Covid-19 vaccination announcements, Return On Equity (ROE), and Debt to Equity Ratio (DER) on stock prices of pharmaceutical subsector companies listed on the Indonesia Stock Exchange (IDX). This study uses panel data regression analysis with Common Effect Model, Fixed Effects, or Random Effects method which is tested with Chow Test and Hausman Test. The hypotheses proposed are that Covid-19 vaccine announcements have a significant effect on stock prices of pharmaceutical subsector companies in IDX (H1), ROE has a positive and significant effect on stock prices (H2), and DER has a negative and significant effect on stock prices (H3). The results show that H1 is accepted, H2 has a positive and significant effect on stock prices, and H3 has a negative and significant effect on stock prices. This study can provide insights for investors and stakeholders regarding the impact of these factors on stock prices of pharmaceutical subsector companies in IDX.

Keywords: Covid-19 vaccination announcement, Return On Equity (ROE), Debt to Equity Ratio (DER), stock price, panel data regression.

I.   INTRODUCTION AND LITERATURE REVIEW

The COVID-19 pandemic has spread worldwide and caused significant economic impacts, including on stock prices. From the fourth quarter of 2019 to the fourth quarter of 2021, economic conditions in Indonesia experienced a deep contraction. This unstable economic condition has an impact on company performance and stock prices. This analysis aims to evaluate how COVID-19 vaccination has affected stock prices in Indonesia and its impact on companies' financial performance and stock prices in the unstable economic conditions of 2019 quarter 4 to 2021 quarter four.

One type of financial instrument that can be traded in the Indonesian capital market is shares, which express the ownership of a person or business institution in a company or limited liability company. The price of a share where this activity takes place on the capital market at a particular time where the determination is carried out by market demand and is determined by the number of requests and offers of shares related to the capital market where this is called the share price (Jogiyanto, 2017:160). Shares have a price that can be traded based on supply and demand in the Indonesian capital market related to shares. One crucial factor in measuring shareholder welfare is the price of shares outstanding. The share price provides information on the company's value and is a measure of the company's effectiveness (Hartono, 2016:180).

Since being hit by the COVID-19 pandemic, almost all issuers have positively or negatively impacted stock prices. One of them is the decline in the share price of the pharmaceutical sector on the Indonesia Stock Exchange, which touched the lower auto rejection limit (ARB) of 7% for six consecutive days, and this decline occurred when the administration of the COVID-19 vaccine began on 13 January 2021 (Aldin, 2021), this statement is not in line with the research of Khofifah, Munandar, and Kartini (2022) where the pharmaceutical subsector during the COVID-19 pandemic affected the share prices of pharmaceutical companies in the JCI tended to rise. Positive sentiment during the COVID-19 pandemic can be seen from the significant increase in share prices ranging from 18% - 424%. Recorded in 2020 from ten issuers listed on the IDX experienced a significant increase, namely Kimia Farma, Indofarma, and Phapros shares, with an increase of 70% - 423%.

The company must be able to maintain the company's performance in the effectiveness of generating profits available to shareholders, to increase the Return on Equity value in order to attract investors, where the increasing value of Return on Equity (ROE) can have a positive and significant effect on stock prices (Hidayati, Friantin, and Putri, 2022:310). Including being able to provide investor confidence through the Debt to Equity Ratio (DER) so that it has a significant and positive effect on stock prices (Raja & Yusnita, 2022).

This phenomenon, there is information about the movement of pharmaceutical sector stock prices during the COVID-19 pandemic, which is influenced by information or events in that period, and stock prices are influenced by Return on Equity (ROE) and Debt to Equity Ratio (DER). Therefore, this research makes a valuable contribution to helping to understand the factors that influence stock price movements in the pharmaceutical sector. This study is entitled "ANALYSIS OF THE EFFECT OF COVID-19 VACCINE ANNOUNCEMENTS AND FINANCIAL PERFORMANCE ON STOCK PRICES: Empirical Study on the Pharmaceutical Subsector on the Indonesia Stock Exchange" and uses the pharmaceutical subsector listed on the Indonesia Stock Exchange as the object of research, taking into account the timing of the COVID-19 vaccination policy in Indonesia.

Event Study

An *Event Study* is a study that studies the reaction of the market to events whose information can be published as an announcement (Lee & Setiawati, 2021). Event Study can be used to measure the information content of an announcement and can also be used to test for semi-strong markets.

Signaling Theory

Signaling theory explains how signals of management success or failure are conveyed to owners. Signaling theory is related to asymmetric information. The positive thing in signaling theory is that companies that provide good information will differentiate themselves from companies that do not have "good news" by informing the market about their circumstances, signals about good future performance provided by companies whose past financial performance is not good will not be trusted by the market. According to Gumanti, in signal theory, companies qualitatively have excess information compared to outsiders and use specific measures or facilities to imply the quality of their companies (Muhammad, Tirza, and Biyantoro, 2019:18).

Stock Price

Shares show capital participation in a limited liability company with the benefits obtained. Shares are among the most popular financial commodities traded in the capital market (Nor Hadi, 2018:117). The stock price is the price of a stock that occurs on the stock exchange market at a particular time, determined by market participants and determined by the demand and supply of the shares concerned in the capital market (Jogiyanto, 2017:160).

Financial Performance

According to Rudianto (2013), financial performance is the result or achievement that has been achieved by the company's management in carrying out its function of managing the company's assets effectively during a specific period. Financial performance is needed by the company to determine and evaluate the extent of the company's success based on the financial activities that have been carried out.

1.2 Research Objectives

The design of this research uses quantitative methods. According to (Hair, Jr. et al., 2020, p. 161) that quantitative data refers to measurements where numbers are used directly to represent the characteristics of something because this method is recorded directly with numbers suitable for statistical analysis.

1.3 Research Methodology and Data Analysis

The process of limiting or determining the specific way or method to measure or obtain the value of a variable used in research. This aims to ensure that the variables measured and used in the research have the same interpretation by all parties involved and ensure consistent results in the analysis.
1. Information on the implementation time of the COVID-19 vaccine from 2019 quarter 4 to 2021 quarter-four
2. Stock price

Table 3.1. Variables and their descriptions

Variable	Variable Concept	Indicator	Scale
COVID-19 Vaccination Announcement	National announcement of the arrival of the COVID-19 vaccine	Time before vaccine announcement is categorized as 0, and time after vaccine announcement is 1.	Nominal
Return On Equity	The company's ability to utilize the capital invested by shareholders.	$Net\ Profit\ Margin = \frac{Net\ Profit}{Net\ Sales}$ .... 3.1 $Return\ On\ Equity\ (ROE) = \frac{Net\ Profit}{Equity}$ 3.2	Ratio
Debt To Equity Ratio (DER)	A comparison is used to measure the benchmark	$DER = \frac{Total\ Liabilities}{Total\ Equity}$ 3.3	Ratio

	between the amount of debt and the owner's capital.		
Stock Price	An instrument used to observe and measure capital market reactions to information or events that occur in the capital market.	$HS = \dfrac{\Sigma\ stock\ I\ traded\ at\ time\ t}{\Sigma\ \Sigma\ stock\ I\ outstanding\ at\ time\ t}$ 3.4	Ratio

The scope of this research is companies listed in the Pharmaceutical subsector and listed on the Indonesia Stock Exchange for the period 2019 Q4 to 2021 Q4. The selection of this industry is because, during the COVID-19 outbreak, demand for pharmaceutical products and drugs that can increase endurance soared, especially in the herbal medicine and multivitamin categories. Shares in pharmaceutical companies have increased since the Covid-19 case was discovered in Indonesia. Event studies research usually deals with how quickly data coming into the market can be seen in stock prices. The research time used is four quarters of stock prices consisting of an estimation period and an event period. The estimation period used in this research is from 2019 quarter 4 to 2021 quarter 4, namely, there are nine quarters, namely 2019 quarter 4, 2020 quarter 1 to 4, and 2021 quarter one to quarter 4.
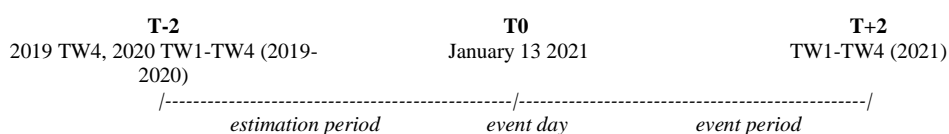
T-2	**T0**	**T+2**
2019 TW4, 2020 TW1-TW4 (2019-2020)	January 13 2021	TW1-TW4 (2021)

/--/--/
estimation period   event day   event period

Image 3.1. *Timeline Study Event*

The reason for choosing the observation period is that sampling is carried out on this timeline so that the event's effect can be known and, if the event is too long, it is feared that other events can affect the research results. Thus, the authors chose quarter 2019 quarter 4 to the year 2021 quarter four. Can be described as follows:

Table 3.2. Timeline

No.	Estimation Period	Event Day	Event Periode
1.	2019Q4		2021Q1
2.	2020Q1	January 13 2021	2021Q2
3.	2020Q2		2021Q3
4.	2020Q3		2021Q4
5.	2020Q4		

Population and Sample

The population is a generalization area consisting of objects/subjects with certain qualities and characteristics set by researchers to study and then draw conclusions (Sugiono, 2017:38). The population in this study are all Pharmaceutical Subsector companies listed on the Indonesia Stock Exchange (IDX) from 2019 quarter 4 to 2021 quarter four.

The sample is part of the population that is the data source in the study, where the population is part of the number of characteristics possessed by the population (Sugiyono, 2017:81). The technique used is purposive sampling (conditional sampling), which is a sampling technique with specific criteria tailored to the needs of this study with the aim to obtain a representative sample. The sample selection criteria in this study are.
1. The Pharmaceutical Subsector listed on the Indonesia Stock Exchange (IDX) in 2019 quarter 4 to 2021 quarter four.
2. Publish annual financial reports periodically on the Indonesia Stock Exchange for five years from 2019 - 2021.
3. Companies that publish financial reports in rupiah units.
4. Remains listed on the Indonesia Stock Exchange until 31 December 2021.

The following table illustrates the *sample* selection:

Table 3.3. Pharmaceutical Subsector Sample

No.	Sample Criteria	Total
1.	Total Pharmaceutical sub-sector Manufacturing Sector companies listed on the Indonesia Stock Exchange (IDX) for the period July 2020 to June 2021	10
2.	Companies that have financial statements for one period, July 2020 to June 2021	10
3.	Incomplete sample and delisting	1

So that the number of samples obtained is 9 (nine) pharmaceutical issuers. The following is a list of names of pharmaceutical issuers that will be the object of research data:

Table 3.4. List of Pharmaceutical Subsector Issuers

No.	Code	Issuer Name
1.	DVLA	Darya-Varia Laboratoria
2.	INAF	Indofarma
3.	KAEF	Kimia Farma
4.	KLBF	Kalbe Farma
5.	MERK	Merck
6.	PEHA	Phapros
7.	PYFA	Pyridam Farma
8.	SIDO	Industri Jamu dan Farmasi Sido Muncul
9.	TSPC	Tempo Scan Pacific

The type of data used in this study is to use secondary data, which consists of
1. Data on pharmaceutical subsector companies listed on the Indonesia Stock Exchange (IDX) for 2019 quarter 4 to 2021 quarter four.
2. Annual financial report data published on the Indonesia Stock Exchange (IDX) for the period 2019 quarter 4 to 2021 quarter-four on the page www.idx.co.id

1.4 Findings and Interpretation
The research data used as variables are financial performance with the proxy return on equity (ROE), debt-to-equity ratio (DER), and stock price. This research data was taken from 9 (nine) pharmaceutical companies listed on the Indonesia Stock Exchange from 2019 to 2021. The data used in this study are as follows:

1. *Return on Equity*

Return on Equity (ROE) is one of the proxies of the profitability ratio, which is an indicator of financial performance used to measure the company's ability to earn profits or profits on investments made. ROE is one of the essential elements in knowing the extent to which a business is able to manage capital from its investors, when the ROE value is getting bigger, the value and reputation of the company will increase in the minds of capital market players because it is proven to be able to make the best use of capital assistance. The following is the development of return on equity (ROE) in pharmaceutical companies listed on the Indonesia Stock Exchange during the COVID-19 pandemic, namely from 2019Q4 to 2021Q4, as shown in Table 4.1. as follows.

Table 4.1. Development of *Return on Equity* of Pharmaceutical Companies Listed on the Indonesia Stock Exchange for the Period 2019Q4 to 2021Q4

No.	Issuer Name	Issuer Code	Return on Equity (%)								
			2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4
1	Darya-Varia Laboratoria Tbk.	DVLA	0,1732394	0,0292063	0,0691188	0,1079554	0,0815785	0,0398361	0,0641293	0,1228843	0,0703415
2	Indofarma Tbk.	INAF	0,0057531	-0,0155488	-0,0029981	-0,0126620	0,0000175	0,0010007	0,0005051	0,0012122	-0,0186747
3	Kimia Farma Tbk.	KAEF	0,0008658	0,0008621	0,0029120	0,0025627	0,0011630	0,0008697	0,0030027	0,0156374	0,0163224
4	Kalbe Farma Tbk.	KLBF	0,1252226	0,0305903	0,0637443	0,0923018	0,1240731	0,0302495	0,0645840	0,0957816	0,1259225
5	Merck Tbk.	MERK	0,0868496	0,0362948	0,0336505	0,0591015	0,0773225	0,0600667	0,0867329	0,1273401	0,1282910
6	Phapros Tbk.	PEHA	0,0487953	-0,0066212	0,0130347	0,0227326	0,0253995	0,0036707	0,0052562	0,0058219	0,0061445
7	Pyridam Farma Tbk	PYFA	0,0489696	0,0212952	0,0283118	0,0737423	0,0967049	0,0190673	0,0196650	0,0254396	0,0067958
8	Industri Jamu dan Farmasi Sido	SIDO	0,2283608	0,0619731	0,1201435	0,1732087	0,2426321	0,0671362	0,1397901	0,2370673	0,3098814
9	Tempo Scan Pacific Tbk.	TSPC	0,0710822	0,0345919	0,0458681	0,0600925	0,0916421	0,0321148	0,0461452	0,0611968	0,0910191

Source: Indonesia Stock Exchange, Processed in 2023.

From the results of this report, there is a minus ROE value in companies with the issuer code INAF AND PEHA, which means that these companies are unable to benefit from the investment made by investors because when the ROE value is minus, it means that investors do not consider investing in companies with a minus ROE value or loss.

2. *Debt to Equity Ratio*

Debt to equity ratio (DER) is one indicator of the company's financial performance conditions. It is a proxy for the solvency ratio as a reflection of the ability of the capital structure to finance the company's activities.

DER shows the company's financial independence from loans which can assist in decision-making by company stakeholders regarding long-term debt. The following is the development of the debt to equity ratio (DER) in pharmaceutical companies listed on the Indonesia Stock Exchange during the COVID-19 pandemic, namely from 2019 Q4 to 2021 Q4, as shown in Table 4.2. below:

Table 4.2. Development of Debt to Equity Ratio of Pharmaceutical Companies Listed on the Indonesia Stock Exchange for the Period 2019Q4 to 2021Q4

No.	Issuer Name	Issuer Code	Debt to Equity Ratio (%)								
			2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4
1	Darya-Varia Laboratoria Tbk.	DVLA	0,40111	0,43742	0,40745	0,40857	0,49795	0,44795	0,43298	0,45234	0,51065
2	Indofarma Tbk.	INAF	1,74082	1,85056	2,10892	2,06828	2,98148	3,21513	3,52391	4,39816	2,95798
3	Kimia Farma Tbk.	KAEF	1,47579	1,46275	1,52624	1,55777	1,47166	1,45092	1,49776	1,60285	1,45582
4	Kalbe Farma Tbk.	KLBF	0,21305	0,28255	0,28581	0,25404	0,23464	0,23006	0,21177	0,21384	0,20694
5	Merck Tbk.	MERK	0,51691	0,53268	0,52441	0,55845	0,51775	0,33273	0,35424	0,36871	0,50029
6	Phapros Tbk.	PEHA	1,55197	1,70669	1,96861	2,05820	1,58600	1,61584	1,65396	1,57292	1,48124
7	Pyridam Farma Tbk	PYFA	0,52964	0,58840	0,54289	0,55212	0,45006	2,44803	2,30997	2,43005	3,82477
8	Industri Jamu dan Farmasi Sido	SIDO	0,15407	0,13339	0,11909	0,11951	0,19486	0,36791	0,13528	0,19168	0,17221
9	Tempo Scan Pacific Tbk.	TSPC	0,44582	0,45566	0,47046	0,46079	0,42768	0,45255	0,46766	0,43691	0,40275

Source: Indonesia Stock Exchange, Processed in 2023.

From the results of this report, during the research period, there are pharmaceutical companies with the issuer code INAF having a very high DER value exceeding 1%, and there are also pharmaceutical companies that have a minimal DER value. When the company has a minimal DER value, it means that the company can operationalize the company because the debt owned from external sources is almost nonexistent, and this certainly attracts investors to invest, especially in the COVID-19 pandemic and in the future because pharmaceutical companies are needed by the public for their health. However, when the DER value is very high, it means that the company has a higher proportion of debt than capital, so this has a harmful impact because investors usually consider investing. After all, debt from external sources is higher than capital.

3. Stock Price

The stock price is determined by capital market participants in the stock exchange market related to the demand and supply of company securities. An increase in stock prices occurs due to purchase transactions against shares traded in the capital market, and a decrease in stock prices occurs because many investors sell shares per sheet that have been invested. An increase in the share price will have an impact on the higher investor interest in investing, however, a decrease in the share price will cause investors to hesitate in investing their capital because the company is unable to make a profit or profit. The following is the development of stock prices in insurance companies from 2015 to 2020, as shown in Table 4.3.

Table 4.3. Development of *Stock Prices* of Pharmaceutical Companies Listed on the Indonesia Stock Exchange for the Period 2019Q4 to 2021Q4

No.	Issuer Name	Issuer Code	Stock Price								
			2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4
1	Darya-Varia Laboratoria Tbk.	DVLA	2.250,00	2.100,00	2.180,00	2.520,00	2.420,00	2.370,00	2.380,00	2.450,00	2.750,00
2	Indofarma Tbk.	INAF	870,00	1080,00	985,00	2.860,00	4.030,00	2.460,00	3.110,00	2.330,00	2.230,00
3	Kimia Farma Tbk.	KAEF	1.250,00	1.310,00	1.120,00	2.890,00	4.250,00	2.560,00	3.140,00	2.400,00	2.430,00
4	Kalbe Farma Tbk.	KLBF	1.620,00	1.200,00	1.460,00	1.550,00	1.480,00	1.570,00	1.400,00	1.430,00	1.615,00
5	Merck Tbk.	MERK	2.850,00	1.740,00	2.750,00	2.910,00	3.280,00	3.170,00	3.300,00	3.290,00	3.690,00
6	Phapros Tbk.	PEHA	1.075,00	1.000,00	1.310,00	1.335,00	1.695,00	1.180,00	1.165,00	1.165,00	1.105,00
7	Pyridam Farma Tbk	PYFA	198,00	181,00	610,00	815,00	975,00	930,00	980,00	1.150,00	1.015,00
8	Industri Jamu dan Farmasi Sido	SIDO	1.275,00	580,57	602,90	739,36	798,90	779,05	704,62	770,00	865,00
9	Tempo Scan Pacific Tbk.	TSPC	1.395,00	965,00	1.390,00	1.280,00	1.400,00	1.480,00	1.470,00	1.430,00	1.500,00

Source: Indonesia Stock Exchange, Processed in 2023.

Based on Table 4.3 above, the share price reflects the company's value. When the share price is high, it can attract investors to invest because of the high share price. The share price of this pharmaceutical company tends to fluctuate, which is caused by the demand and purchases made by investors in the capital market.

Based on the results of reviews output with the Random Effect Model, the results of the significance test and hypothesis analysis of the relationship between each independent variable (Announcement, ROE, DER) on the dependent variable (Stock Price).

1. The Effect of Covid Vaccination Announcement on Stock Price

Based on the results of hypothesis testing for testing the relationship of COVID-19 Vaccination Announcements on stock prices in pharmaceutical subsector companies with a coefficient value of 165.7099 and has a positive or unidirectional relationship direction with a probability of 0.1896 which does not meet the requirements for acceptance of H1 (first hypothesis) because the probability is more than 0.05, which means the hypothesis is rejected. The results of this study indicate that the increase in COVID-19 Vaccination Announcements does not significantly affect stock prices. This finding means that when the COVID-19 vaccination announcement is made by the government, it does not necessarily increase stock prices even though the information on the COVID-19 vaccine is expected to reduce the pandemic that occurred in Indonesia and can do face-to-face activities again, as usual, especially in the capital market. The results of this study are not in line with the statement of Khofifah, Munandar, and Kartini (2022), which states that the vaccine issue makes shares in pharmaceutical companies rise dramatically. The increase in stock prices is not significant.

2. Effect of *Return on Equity* on Stock Price

Based on the results of hypothesis testing for testing the relationship between *return on equity* on stock prices in pharmaceutical subsector companies with a coefficient value of 2082.306 and has a positive or unidirectional relationship direction with a probability of 0.0910. This value does not meet the requirements for acceptance of H2 (second hypothesis) because the probability is more than 0.05, which means the hypothesis is rejected.

The results showed that ROE on stock prices in Pharmaceutical Subsector Companies Listed on the IDX in 2019 quarter 4 to 2021 quarter-four did not have a positive effect on stock prices; this is not in line with the results of previous research, namely, ROE has a significant positive effect on stock prices, where ROE is one of the factors that immensely influence stock prices, because if the company has a high ROE so that the company can generate high profits (Hidayati, Friantin, and Putri, 2022:310). The company's ability to utilize the capital invested by shareholders and to distribute these profits to shareholders is one of the most essential things in measuring ROE. Thus ROE is beneficial for investors and company owners because investors can predict the company's ability to make investment decisions.

3. Effect of *Debt to Equity* Ratio on Stock Price

Based on the results of reviews output from the data from 2019 quarter 4 to 2021 quarter four, the prob value is 0.0302> 0.05, so it can be concluded that DER has a positive effect on Stock Price. Based on the results of hypothesis testing for testing the relationship between *Debt to Equity Ratio* and stock price in the pharmaceutical subsector company with a coefficient value of 266.1034 and has a positive or unidirectional relationship direction with a probability of 0.0302. This value meets the requirements for acceptance of H3 (third hypothesis) because the probability is less than 0.05, which means the hypothesis is accepted.

The results of this study provide the result that the *Debt to Equity Ratio* (DER) has a positive effect on stock prices. This is in line with the research of Raja and Yusnita (2022), which states that the Debt to Equity Ratio (DER) has a significant effect on stock prices in Pharmaceutical Sub-Sector Companies. This shows that the ownership of the company's minimal capital structure, as a result of fluctuations in profits that have decreased due to the pandemic, companies will increasingly tend to use foreign capital (loans). In a situation like this, the company will decide to obtain funds from external sources, such as creditors and investors, to maintain stability and increase debt (DER), and can increase stock prices.

Conclusion and Recommendation

This study aims to provide empirical evidence regarding the effect of the announcement of the COVID-19 vaccine, ROE, and DER on Stock Prices in Pharmaceutical Subsector Companies Listed on the IDX in 2019 quarter 4 to 2021 quarter four, so researchers can conclude, namely. The announcement of the COVID-19 Vaccination has no effect on the share price of Pharmaceutical Subsector Companies; *Return on Equity* (ROE) has no effect on the share price of Pharmaceutical Subsector Companies Listed on the IDX; *Debt to Equity Ratio* (DER) has a positive effect on the share price of Pharmaceutical Subsector Companies;

By the conclusions described above regarding "Analysis of the Effect of the Announcement of the COVID-19 Vaccine and Financial Performance on Stock Prices", namely.

For Pharmaceutical Subsector Companies, namely pharmaceutical companies listed on the Indonesia Stock Exchange, should coordinate with the government when is the right time to announce the COVID-19 vaccine so that investors can plan investment decisions made when the announcement is made; the management of pharmaceutical companies needs to make more efforts through the company's operational activities to increase company profits during the COVID-19 pandemic so that operations continue to run even though it is still a pandemic period; management should continue to make voluntary disclosures so that investors can see information related to long-term debt as reflected in the debt to equity ratio because it is to be the basic material or consideration of investors before investing.

For Further Research, namely, future researchers are expected to increase the number of companies used as research samples by taking samples in sectors other than pharmaceuticals that are negatively affected by COVID-19.

Bibliography

[1]. Basuki, Agus Tri, dan Nano Prawoto. 2016. Analisis Regresi Dalam Penelitian Ekonomi & Bisnis : Dilengkapi Aplikasi SPSS & EVIEWS. Depok: PT Rajagrafindo Persada.
[2]. Fahmi, Irham. 2016a. Pengantar Manajemen Keuangan. Bandung: CV Alfabeta.
[3]. ———. 2016b. Pengantar Manajemen Keuangan. Cetakan Ke. Bandung: CV. Alfabeta.
[4]. H. M. Jogiyanto. 2014. Teori Portofolio dan Analisis Investasi Edisi Kedelapan. Edisi Kedelapan. Yogyakarta: BPPE-UGM.
[5]. Hair, Jr., F. Joe., Michael Page, dan Niek Brunsveld. 2020. Essentials of Business Research Methods. Fourth Edi. New York: Routledge Taylor & Francis Group.
[6]. Hantono. 2018. Konsep Analisa Laporan Keuangan dengan Pendekatan Rasio dan SPSS (Pertama). Cetakan Pertama. Yogyakarta: Deepublish.
[7]. Hery. 2016. Analisis Laporan Keuangan. Jakarta: Grasindo.
[8]. Hidayati, Lisa Nur, Hayati Efi Siti Friantin, dan Swasti Ika Putri. 2022. "Pengaruh Return On Asset (ROA), Return On Equity (ROE), Dan Earning Per Share (EPS) Terhadap Harga Saham." Jurnal Ilmiah Bidang Ilmu Ekonomi 20 (3): 304–13. www.cnbcindonesia.com.
[9]. Ihya Ulum Aldin. 2021. "Mengapa Harga Saham-saham Farmasi Anjlok hingga 34% dalam Sepekan?" katadata.co.id. 2021. https://katadata.co.id/safrezifitra/finansial/6007f39c660fd/mengapa-harga-saham-saham-farmasi-anjlok-hingga-34-dalam-sepekan.
[10]. Khofifah, Al Fajriyah Nurul, Agus Munandar, dan Putri Kartini. 2022. "Pengaruh Pandemi COVID-19 terhadap Harga Saham Perusahaan Farmasi." Jurnal Akuntansi & Keuangan Vol. 13: 50–58.
[11]. Lee, Muhammad Evan, dan Dan Lulu Setiawati. 2021. "Analisa Dampak Pengumuman COVID-19 di Indonesia Tahun 2020 Terhadap Abnormal Return dan Trading Volume Activity Event Study Pada Perusahaan Lq45 di BEI." Jurnal Indonesia Sosial Teknologi 2 (01): 92–103. https://doi.org/10.36418/JIST.V2I1.72.
[12]. "Media Informasi Kinerja Perusahaan Indonesia - Annual Report ID." t.t. Diakses 17 Maret 2023. http://www.annualreport.id/perusahaan/PT%20INDOFARMA%20(PERSERO),%20Tbk.
[13]. Muhammad, Rifqi, Cahyaningtyas Tirza, dan Silviani Biyantoro. 2019. "Faktor-Faktor Yang Mempengaruhi Peringkat Sukuk (Studi Empiris Perusahaan Yang Diperingkat Fitch Rating)." Jurnal Lembaga Keuangan dan Perbankan, 187–200.
[14]. Mulyadi. 2015. Sistem Akuntansi. Jakarta: PT. Salemba Empat.
[15]. Munawir. 2012. Analisa Laporan Keuangan. Yogyakarta: Liberty.
[16]. Nor Hadi. 2018. Pasar Modal. Edisi 2. Yogyakarta: Graha Ilmu.
[17]. "PT. Industri Jamu dan Farmasi Sido Muncul Tbk [SIDO] | IDNFinancials." 2022. 2022. https://www.idnfinancials.com/id/sido/pt-industri-jamu-dan-farmasi-sido-muncul-tbk.
[18]. "PT. Kimia Farma Tbk [KAEF] | IDNFinancials." t.t. Diakses 17 Maret 2023. https://www.idnfinancials.com/id/kaef/pt-kimia-farma-tbk.
[19]. "PT. Merck Tbk [MERK] | IDNFinancials." 2017. 2017. https://www.idnfinancials.com/id/merk/pt-merck-tbk.
[20]. "PT. Phapros Tbk [PEHA] | IDNFinancials." 2022. 2022. https://www.idnfinancials.com/id/peha/pt-phapros-tbk.
[21]. Raja, Ulfa Apriani, dan Ria Yusnita. 2022. "Pengaruh Profitabilitas, DER, dan Nilai Tukar Terhadap Harga Saham Pada Perusahaan Sub Sektor Farmasi Di Bursa Efek Indonesia." JOURNAL OF ECONOMIC WELL BEING (JOEW). Vol. 1.
[22]. Rudianto. 2013. Akuntansi Manajemen. Jakarta: PT. Erlangga.
[23]. Samsul, Muhammad. 2016. Pasar Modal & Manajemen Portofolio. Edisi Dua. Jakarta: Erlangga.
[24]. "Sejarah dan Profil Singkat KLBF (Kalbe Farma Tbk) – britama.com." 2012. 2012. https://britama.com/index.php/2012/11/sejarah-dan-profil-singkat-klbf/.
[25]. "Sejarah dan Profil Singkat TSPC (Tempo Scan Pacific Tbk) – britama.com." 2022. 2022. https://britama.com/index.php/2012/06/sejarah-dan-profil-singkat-tspc/.
[26]. Sugiono. 2017. Metode Penelitian Kuantitatif Kualitatif dan R&D.
[27]. Sugiyono. 2017. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta, CV.