

The Effect Of Profitability, Firm Value, And Leverage On Stock Return Before And During Covid-19 In Healtycare Sector Companies

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The Effect Of Profitability, Firm Value, And Leverage On Stock Return Before And During Covid-19 In Healtycare Sector Companies

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Abstract

The Covid-19 pandemic has greatly affected the economy of all countries so that it is considered a black swan which has an impact on almost all aspects of life. However, there are companies that actually benefit from the Covid-19 pandemic, namely companies in the health care sector, because the need for products produced by companies in this sector is really needed during the pandemic. This study aims to examine the effect of profitability, firm value, leverage and company size on stock returns in healthcare sector companies both before, during and after the Covid-19 pandemic. Profitability is measured by return on assets, firm value is measured by the price to book value ratio, leverage is measured by the debt-to-equity ratio and firm size is measured by the natural logarithm of total assets. The population of this study is the health care sector companies that are on the Indonesia Stock Exchange as many as 24 companies and all of them are taken as samples. The data collection period is from 2018 to 2022, with quarterly data. This study uses multiple regression analysis to test the hypothesis. The results of the study show that profitability and leverage have no significant effect on stock returns before, during and after Covid. Meanwhile, PBV has a positive and significant effect on stock returns both before, during and after Covid. Meanwhile, firm size has an effect on stock returns during and after Covid 19.

Keyword: profitability, firm value, leverage, firm size, stock return, Covid-19

Introduction

The Covid-19 pandemic is currently sweeping the world, where the first cases were linked to the fish market in Wuhan (Rothan and Byrareddy, 2020). Transmission of the COVID-19 virus from symptomatic patients occurs through droplets that come out when they cough or sneeze (Han and Yang, 2020). The COVID-19 pandemic has had many negative impacts on the world economy which has led to a world economic recession (Arianto, 2021). It also affects almost all

aspects of human life and the economy and has been branded as a “black swan” event due to its sudden and severe nature (Verma and Gustafsson, 2020).

In Indonesia itself, there have been several studies which have concluded that the COVID-19 pandemic has had a negative impact on the economy in Indonesia (Nasution, Erlina and Muda, 2020), (Hadiwardoyo, 2020). The nature of the transmission of the COVID-19 disease is very fast, therefore many policies have been issued by the Indonesian government and the World Health Organization (WHO) in an effort to minimize spikes in the disease.

One of them is the Large-Scale Social Restrictions or PSBB which is regulated by PP number 21 of 2020. Where the contents call for more activities at home, so that new habits emerge as a result of the policy. This is proven by the research conducted (Ben-Ahmed, Ayadi and Hamad, 2021) which found confirmed cases of COVID-19 had a positive and significant effect on stock returns in all digital companies. This research proves that people's new habits increase the need for online-based telecommunication.

In addition, it was also reported that giving Vitamins C, D, and Zinc could reduce the increased risk of complications, reduce severity, treat symptoms, and increase body immunity (Setyoningsih et al., 2021). Habits from an early age to live hygienically by washing hands lead to adherence to patterns of healthy living habits during the Covid-19 pandemic (Chang, Wang and Chiang, 2022). Research by (Savarese et al., 2021) concluded that in the midst of a pandemic it is important to have a strong immune system by focusing on a healthy and nutritious diet. This was also supported by (Lathifah et al., 2021) which stated that during COVID-19 the shares of INAF and KAEF companies from the consumer goods sector in the pharmaceutical industry experienced an increase in share value. This is the reason why it is possible for companies engaged in the health sector other than the 2 companies previously studied to experience the same thing. This is because people consume more medicines during the COVID-19 pandemic compared to before the pandemic occurred

The financial performance of a company can be measured by ratios, according to (Hanafi, 2003) these ratios can be grouped into five types, namely: profitability ratios, liquidity ratios, activity ratios, solvency ratios and market ratios. According to (Jogiyanto, 2010) stock returns are divided into two, namely realized returns which are returns which have occurred or have actually occurred and expected returns. One of the factors that influence stock returns is ROA, which is an analysis or profitability ratio to measure the efficiency and profitability of the business concerned (Fakhrudin Shopian and Hardianto, 2001). According to research conducted by Hardiningsih, Suryanto and Chariri, 2002 return on assets (ROA) has been shown to have a significant effect on stock returns. Income earned by investors can be obtained from stock returns, where according to research (Anandarajan et al., 2006) income and book value are important indicators of equity valuation. In this study, firm value is seen from Price to Book Value. According to Arista and Astohar, 2012 Price to Book Value or PBV is one of the factors that influence stock returns, where the same research is also explained by (Martono, 2009) inflation-adjusted book value has a strong relationship with equity value.

Leverage is the company's ability to fulfill all of its obligations, both short-term and long-term (Husnan, S., & Pudjiastuti, 2004). DER is a ratio of debt to own capital. From this explanation, it can be said that the lower the DER, the lower the risk of failure that might occur in a company. According to research conducted by (Martono, 2009) debt to capital ratio (DER) proved to have no significant effect on stock returns. Company size (size) can be used as a variable to measure the level of uncertainty of a stock. Based on research conducted by (Susanty, 2018), firm size has a significant positive effect on stock returns.

Theory and Hypothesis Development

Profitability and stock returns

High profitability is the goal of all companies. Looking at the trend of returns, we can see that the company's performance is efficient (Martono, 2009). The rate of return on investment is an indicator of profitability used to measure a company's ability to generate profits by using its assets (Robert, 1997). The higher the ROA, the more effectively the company uses its assets to generate net profit after tax, so that the company continues to strive to increase its ROA. Increasing ROA increases company profitability.

In short, ROA has a positive effect on shareholder returns. In this study, the rate of return on investment, which is used as an independent variable, is one of the fundamental factors that measure the effectiveness of using company assets to generate profits (Hardiningsih, Suryanto and Chariri, 2002). This is based on research showing that the return on total assets affects the rate of return on stocks. Return on assets or ROA is a profitability analysis to measure the efficiency and profitability of the business concerned (Fakhruddin Shopian and Hardianto, 2001).
H₁: Profitability (ROA) has a positive effect on stock returns

Firm Value and stock return

Price to book value ratio or commonly abbreviated as PBV is a market indicator used to measure stock market price movements relative to book value (Robert, 1997). PBV is calculated by comparing the market price of a share with the book value per share. The smaller the price to book value ratio, the cheaper the share price will be in Leksmana and Gunawan, 2003 in (Martono, 2009). Strong companies generally have a price to book value ratio above 1 (one). This shows that the market value of the stock is higher than the book value. The higher the price to book value ratio, the higher the investor's assessment of the company. When a company is highly valued by investors, the share price rises in the market, which in turn increases the share price. Based on previous research by Anastasia (2003). Research conducted by (Dian Natalia M, 2019) shows evidence from research showing that there is an effect of the price to book value ratio on stock returns.

H₂: Firm value (PBV) has a positive effect on stock returns.

Leverage and stock returns

Debt Equity Ratio or commonly abbreviated as DER is the debt ratio as measured by debt equity or equity ratio. DER can be used to see the level of debt usage. The safe level of DER is usually less than 50%. The lower the level of debt, the better the company's DER and the debt must be predicted fairly (Fakhrudin Shopian and Hardianto, 2001). This debt-to-equity ratio represents the company's capital structure and thus identifies the risk of non-payment of debt (Ratnawati, 2009). A larger DER indicates that the capital structure is debt-to-capital leverage, reflecting the company's relatively high risk (Natarsyah, 2000).

According to (Robert, 1997), the following applies: The higher the DER value, the higher the risk that must be borne by the company in the event of damage due to the use of these shares. This is based on research (Natarsyah, 2000) that the debt to capital ratio affects equity returns. Yield is the amount of profit that investors get from an investment (Robert, 1997). According to (Husnan, 1994), return on equity is the result of an investment.

From DER you can see a comparison of the total debt compared to the company's total equity as a source of funding. As explained earlier, the higher the DER, the worse the company's performance. Because the company uses its long-term debt as the company's capital funding. This means that the larger the company's DER, the lower the stock return received.

H₃: Leverage (DER) has a positive effect on stock returns

Firm Size and stock return

According to Brigham & Houston (2012: 141) explains that company size is a measure of the size of a company which is indicated or assessed by total assets, total sales, total profits, tax expenses and others. Company size can be assessed from several aspects. The greater the value of these items, the greater the size of the company, the greater the assets, the more capital invested, the more sales, the more money circulation and the greater the market capitalization, the greater the company is known to the public. Company size according to (Hery, 2017) company size measures the size of a company which can be expressed by total assets or total net sales. According to Jogiyanto (2010: 182) explains that asset size is used to measure the size of the company, the size of the asset is measured as the logarithm of total assets. Meanwhile, the definition explained by (Prasetyantoko, 2010) is that total assets can describe the size of the company, the bigger the assets, the bigger the company usually is. Based on the description above, then to determine the size of the company used asset size.

H₄: Firm size (SIZE) has a positive effect on stock returns

Research Method

Population and Sample

The analysis data for this research are the quarterly financial reports of companies in the healthcare sector where as of November 2022 there are 24 listed companies. So that the total data before Covid-19, namely in 2018-2019 there were 110 data, during Covid-19 in 2020-2021 there were a total of 156 data and after Covid-19 in 2022 there were 56 data.

Variables and their measurements

In this study there is one dependent variable, namely stock return (SR) and 5 independent variables consisting of profitability as measured by return on assets (ROA), firm value is measured by the process to book value ratio (PBV), leverage is measured by the debt to equity ratio, firm size (SIZE), and Covid 10 (COV) are dummy variables where comparisons are made between before, during and after covid 19. Following are the variable measurements:

Table 1: Variables and measurement

No	Variable	Symbol	Measurement
1	Stock return	SR	$(P_t - P_{t-1})/P_{t-1}$
2	Profitabilitas	ROA	Earning After Tax/Total Assets
3	Firm Value	PBV	Stock price/book vlaue per share
4	Leverage	DER	Total debt/Total Equity
5	Firm Size	SIZE	Log Natural Total Assets
6	Covid 19	COV	Dummy variable

Analysis data

This study uses multiple linear regression with two models, namely without considering Covid 19 and considering Covid 19.

Model 1: tanpa mempertimbangkan Covid

$$SR = \alpha + \beta_1 ROA + \beta_2 PBV + \beta_3 DER + \beta_4 SIZE + u_i$$

Model 2: considering Covid 19

$$SR = \alpha + \beta_1 ROA + \beta_2 PBV + \beta_3 DER + \beta_4 SIZE + \beta_5 COV + u_i$$

Results and Discussion

Descriptive Statistics

Descriptive analysis is an analysis that is used to transform the data that has been obtained as a description of each research variable to make it easier to understand.

Table 2: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
SR	299	-0,5719	10,6450	-0,0008	0,216070
ROA	299	-0,0840	0,2657	0,0501	0,576894
PBV	299	0,0940	108,5060	2,6559	19,711095
DER	299	0,0454	25,4420	0,6141	0,547571
SIZE	299	14,426	30,9217	23,7078	57,573180
Valid N	299				

Source: Data processed

Based on the table above, the lowest stock return is -0.5710 which is owned by the KAEF company in the third quarter period or financial report period from October - December 2019. For the highest stock return 1.0645 by IRRA period from October - December 2020. Where in the period this year is the year when the Covid-19 pandemic was implemented and Government Regulation PP number 21 of 2020 was implemented. Where this PP contains restrictions on activities and more activities and staying at home is one way to avoid exposure to the virus

Profitability as measured by the lowest Return on Assets (ROA) is -0.0840 achieved by SAME companies for the period October - December 2019 or SAME companies experienced a loss of 8% in the final period of 2019. And the highest was 0.2657 achieved by DGNS companies for the period October - December 2021, meaning that the company PT Diagnos Laboratory Utama Tbk is able to generate 26.57% profit from the total assets owned by the company in the last 3 months from the financial statements submitted for 2021.

Company valuation seen from Price to Book Value according to (Martono, 2009) inflation-adjusted book value has a strong relationship with equity value. From the table above, the lowest PBV value was 0.0940 by the SILO company for the period October - December 2018 and the highest value was achieved by the IRRA company, which was 10.8506 for the period January - March 2021.

Leverage or the company's ability to fulfill its long-term obligations in this study is measured using the Debt Equity Ratio (DER). The minimum value of DER in the table above is 0.0454 for CARE companies April - June 2020. This means that every one rupiah of debt from the company is collateralized by 0.04 equity from the company. While the maximum value is 2.5442 achieved by IRRA companies in the second quarter reporting period between April - June 2021. For an average value of 0.6146 and a standard deviation of 0.5475, where the average value is greater than the standard deviation value indicates there is not much variation in the data on samples.

Company size or size in this study is seen from Ln Total Assets, where if seen from the table above the minimum value of size is 14.4256, this value is owned by PRDA companies seen from the financial report period published April - June 2018. As for the value the maximum is 30.9217 reported by IRRA companies for the period April to June 2021. The average value is 23.707844 with a standard deviation value of 5.7573180. There is not much variation in company size in this study. This can be seen from the average size value which is greater than the standard deviation value.

Hypothesis test results

The hypothesis in this study uses two models, namely without the covid variable and considering the covid variable. The results of the hypothesis test are as follows:

Table 3: Hypothesis Result

Variable	Without Covid		Before Covid		During Covid		Afetr Covid	
	t	sig.	t	sig.	t	sig.	t	sig.
ROA	1.474	0,142	1,381	0,168	0,863	0,389	1,073	0,284
PBV	3,244	0,001	3,185	0,002	3,408	0,001	3,498	0,001
DER	-0,911	0,363	-0,996	0,320	-1,390	0,166	-1,188	0,236
SIZE	-1,809	0,071	-1,806	0,072	-1,986	0,048	-1,981	0,048
COVID			-1,172	0,242	2,827	0,005	-2,155	0,032

Source: Data Processed

Based on table 3, the results of processing the t test data from the table above can be proven that the ROA variable before Covid -19 had a coefficient value of 1.381 and a significance value of t of 0.168 was greater than 0.05. while during and after Covid-19 the coefficient value was positive with a significance greater than 0.05. This can be interpreted that the variable return on assets does not have a significant positive effect on stock returns. Profitability as measured by ROA is one of the fundamental factors that measure the effectiveness of using company assets to generate profits (Hardiningsih, Suryanto and Chariri, 2002). Where ROA shows the company's financial performance in generating profits, which when profits rise will increase the rate of return on investor stock. The results of this study show that the effect of profitability on stock returns is not significantly positive. It is possible that when profitability increases, it will increase the rate of return on shares, but it is not significant or of great benefit to the rate of return on shares. This could be because there are other variables that affect stock returns.

As research conducted (Hardiningsih, Suryanto and Chariri, 2002) shows that the return on total assets affects the rate of return on stocks. The results of this study are in line with research conducted by (Dewi and Suwarno, 2022) where ROA has a positive and significant effect on stock returns. In accordance with the existing theory where the better or higher the ROA means the better the company is in managing its assets to generate profits. And when profits rise, of course, more stock returns will be obtained by investors. Also strengthened by research conducted by (Wulandari, 2012) where profitability also has a positive effect on stock returns in the Manufacturing companies studied.

And if you look at the value of ROA during Covid-19, there was a greater effect on stock returns, this strengthens previous research conducted by (Lathifah et al., 2021) where the results of the research conducted were during COVID-19 the shares of INAF and KAEF companies from the pharmaceutical consumer goods industry experienced an increase in share value. Research conducted by (Ananda Widiastuti and Jaeni, 2022) in his research also found that there were significant differences between the financial performance of telecommunications companies before and during the Covid-19 pandemic. In this study, it was also found that during Covid-19 the value of the effect of ROA on stock returns was greater than before and after Covid-19.

Firm value as measured by Price to book value (PBV) has a coefficient value during Covid-19 of 3,408 with a significance value of less than 0.05, namely 0.01. The same thing happened to the values before and after Covid-19. The coefficient value is positive and the significance is less than 0.05. This can be interpreted that the PBV variable has a positive and significant influence on stock returns. Price to book value ratio (PBV) is calculated by comparing the market price of a stock with the book value per share. PBV shows that the company has high market exposure. The market value is determined by the supply and demand for shares on the exchange. The smaller the price to book value ratio, the cheaper the share price will be in Leksmana and Gunawan, 2003 in (Martono, 2009). Strong companies generally have a price to

book value ratio above 1 (one). The higher the price to book value ratio, the higher the investor's assessment of the company. When a company is highly valued by investors, the stock price rises in the market, which in turn increases the stock price Anastasia (2003), where when the price rises it will increase the rate of stock returns.

The results of this study show that PBV has a positive effect, meaning that PBV is one of the factors considered by investors when making investment decisions. And this means that a high PBV value will increasingly attract investors to invest and will increase stock prices. Of course when the stock price rises this will increase the stock return. These results also reinforce previous research by (Arfah, 2022) where PBV has a positive effect on stock returns. There are also studies conducted (Wulandari, 2012) and (Mahasidhi and Dewi, 2022) where it is also explained that PBV is one of the factors that investors consider in making decisions because PBV has a positive effect on stock returns. Meanwhile, according to Arista and Astohar, 2012 Price to Book Value or PBV is one of the factors that influence stock returns, where the same research is also explained by (Martono, 2009) inflation-adjusted book value has a strong relationship with equity value. PBV reflects the net assets owned by shareholders by owning per existing share.

The results of the leverage hypothesis test on stock returns before, during and after Covid-19 have a value of -0.996 with a significance of 0.320 before Covid-19. While during Covid-19 the value was -1,390 with a significance of 0.166, for after Covid-19 the value was -1,188 with a significance of 0.236. Of the three values before, during or after Covid-19, they have a negative value and a greater significance of 0.05, which means that DER has no significant negative effect on stock returns either before, during or after Covid-19. These results reinforce the research conducted by Okalesa. Ony and Purwati, (2020) meaning that when DER increases it does not affect increasing stock returns and vice versa when DER falls it does not affect stock returns falling. This is because when the DER decreases it will result in an increase in stock prices, and when the DER increases it will cause a decrease in stock prices. Where when the stock price falls, it will reduce the amount of income or stock returns for investors. Similar to research conducted by (Kandami, Andriati and Matani, 2022) DER has no effect on stock returns. This is in line with research conducted by (Satrio Putro Pangestu, 2017), Arista and Astohar, (2012) and (Arfah, 2022) DER has a negative effect on stock returns because investors will avoid stocks that have high DER. A high DER indicates that the company's debt is high and its financial performance is not good and the company's dependence on outsiders is high. Of course, high debt will burden investors and increase risk to investors. However, there is a difference between DER before Covid-19 and during Covid-19. Judging from the data during the Covid-19 period, the value of DER decreased, this is indicated to have caused stock prices to rise during Covid-19.

Firm size (SIZE) produces a coefficient of -1,806 with a significance of 0.072 while during Covid-19 it was -1,986 where the significance value was 0.048. The value after Covid-19 is -1.981, the significance value is 0.048. Of the three values before, during or after Covid-19 the value is negative and the significance is more than 0.05 which means that company size has no significant negative effect on stock returns either before, during or after Covid-19. These results are in line with research (Adiwibowo, 2018), (Kandami, Andriati and Matani, 2022) company

size has no significant effect on stock returns. The same thing was also obtained from the results of research conducted (Nofitasari and Adi, 2021) (Pradanimas and Sucipto, 2022) company size is negative and not significant. These results indicate that the size of the company is not the focus of investors in investing. In addition, companies that have large assets tend to retain greater profits to be used as capital back than to be distributed to shareholders as dividends.

However, judging from the research conducted (Ashraf, 2020) (Manurung and Subekti, 2021), (Darmayanti, Mildawati and Dwi Susilowati, 2021), and Thomas et al. (2020) that there were differences in stock returns before and after the Covid-19 event, both economic and non-economic events as indicated by changes in stock returns. Similar to research conducted by (Yusuf, Maslichah and Afifudin, 2022) there are differences in stock returns before and after Covid-19 where Covid-19 has an impact on stock price fluctuations

Conclusions and recommendations

Based on the results of the hypothesis test, it turns out that profitability and leverage statistically have no effect on stock returns, neither considering Covid-19 nor considering Covid-19. Meanwhile, firm size during and after Covid-19 actually had a positive effect on stock returns. Meanwhile, firm value as measured by PBV actually has a positive effect whether considering or not considering Covid-19. This result is very interesting, because investors consider firm value more in buying and selling shares.

It is hoped that the results of this study can be used by investors in considering investing with the aim of increasing stock returns, although there are other factors that have not been explained in this study. It can also be used by company management to be used as a reference to increase stock returns. For academics, this can be used as an additional reference for knowledge about the factors that influence stock returns and it is hoped that they can add other variables.

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