

# THE EFFECT OF PROFITABILITY, LIQUIDITY, SOLVENCY ON THE VALUE OF HEALTH COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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## **Abstract**

**Backgrounds** -Corporate Value is a certain condition that has been achieved by a company as an illustration of the public's trust in the company that has gone through a process of activity for several years. Since the company was founded until now.

**Objectives** –to determine the impact of profitability, liquidity, and solvency on company value in health companies listed on the Indonesia Stock Exchange in 2017 – 2020.

**Design / methodology / approach** -The type of research used is a quantitative research type, namely information data from financial statements in the form of numbers or figures. The sampling method used panel data, namely data that used a combination of cross-sectional data with time series data, based on the population, the study was conducted on 10 health companies and 4 years of observation starting from 2017 - 2020 so that the total data for 40 companies (10 companies x 4 years). The data collection technique uses documentation from financial reports published on the official website of the Indonesia Stock Exchange, namely [www.idx.co.id](http://www.idx.co.id). The analysis technique used is multiple linear regression.

**Findings** -The results of this study indicate that profitability has a significant and positive effect on firm value, liquidity has a significant and positive effect on firm value, solvency has a significant and positive effect on firm value.

**Keywords:** Profitability, Liquidity, Solvency, and Firm Value

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## 1. PRELIMINARY

The government's efforts to support the economy as a whole have been ratified by the Omnibus Law, which was created to support the business climate and invite foreign investors to invest in Indonesia. Things that are regulated in the Omnibus Law legislation start from the ease in administering permits to the calculation in determining the regional minimum wage (UMR). The Coordinating Minister for Maritime Affairs and Investment, also said that it would make it easier to administer health permits, especially in terms of allowing foreign doctors to come to Indonesia with the aim of transferring knowledge/knowledge transfer from foreign experts to health workers in Indonesia.

The hospital industry is currently in a period of rapid development along with the regulation of various regulations that support the investment climate so as to improve the business situation and hospital services. Through the government's efforts to improve the health service system for the wider community, business people have responded to this as a business opportunity, namely by investing in the process of building and operating private hospitals. Many entrepreneurs decide to enter the hospital industry sector by building new hospitals due to the increasing number of patients and also the increasing need for better quality care.

In a pandemic situation that still afflicts Indonesia and has a positive impact on various sectors, the opposite condition occurs in the health sector. in this case the hospital, especially those from the private sector. This pandemic phenomenon is an infectious disease caused by a virus, this is related to urgently needed medical action, for the health industry which plays a major role in handling cases of Corona Virus Disease 19 (Covid-19).

The population growth rate in Indonesia which causes an increase in patients seeking treatment. Launching *Kumparan Bisnis*, a number of health companies in Indonesia have been seen since 2020, as a result of having a positive impact, or rather the case of a pandemic or Corona Virus Disease 19 (Covid-19) appearing from the start. so it is known that the performance of hospital companies has a positive effect by recording an increase in terms of financial performance, which causes the value of the company's shares to be directly related as issuers that list their names on the Indonesia Stock Exchange (IDX). which experienced a significant increase in prices, some even skyrocketed sharply. because of the Corona Virus Disease (Covid-19) several hospital companies listed on the Indonesia Stock Exchange (IDX) that many patients are affected by covid and not only

that disease but diabetes, cancer, dengue fever and others. that the hospital sector that experienced an increase in profits, namely.

**Tabel 1.1 Presentasi Laba**

<b>Perusahaan</b>	<b>Tahun 2019</b>	<b>Tahun 2020</b>	<b>Naik</b>
DGNS	9.193.806.582	52.606.988.623	468%
HEAL	343,920,000,000	645,638,000,000	877%
MIKA	841,673,247,185	730,145,081,007	16.6%
OCAP	1,090,334,633	17,703,492,958	1,52%
SILO	332,998,000,000	125,250,000,000	166%

Dari tabel tersebut bahwa perusahaan mengalami kenaikan pada DGNS sebesar 468%, HEAL 877%, MIKA 16,6%, OCAP 1,52%, dan SILO sebesar 166%. dengan demikian ini bahwa perusahaan di tahun 2020 laba naik dibandingkan di tahun 2019 karena saat adanya covid-19 ini banyak pasien terkena penyakit virus covid-19 sehingga rumah sakit mencatat segi kinerja keuangannya meningkat dan profit juga meningkat.

Nilai perusahaan (Houston, 2014 :151) adalah tingkat keberhasilan dari persepsi investor terhadap suatu perusahaan yang berkaitan dengan harga saham.).

Profitability (Kasmir 2017:114) is to assess the company's ability to seek profit or profit within a certain period. management provides a ratio to measure the level of effectiveness.

Liquidity (Kasmir 2017: 110) is a ratio that describes the company's ability to meet short-term obligations.

Solvency (Sujarweni 2017:61) is to measure the company's ability to meet all of its obligations, both short term as well as long term.

From the above background, there are differences in the stock price performance of the hospital industry with other companies, and the limited research in Indonesia that discusses the value of hospital companies. So this study aims to determine the internal factors that affect the firm value of the hospital company. Firm value is influenced by several internal and external factors of the business unit. Internal factors in question can be in the form of profitability, liquidity, solvency, and other company report components.

## **2. LITERATURE REVIEW**

### **The value of the company**

Firm value is a company associated with stock prices through investors' perceptions of the level of success. If the stock price is high, the value of the company is also high, so that the high company value makes investors not only believe in the company's current performance but can find out the company's prospects in the future (Kusumajaya, 2011; 11).

Investors in determining investment decisions need correct information on the value of the company which can be seen from its share price. (Houston, 2014:11) it was found that there are three types of valuations related to stock prices, namely: intrinsic value, market value, book value (*book values*). Intrinsic value is an estimate of the actual value, market price is market value based on information that occurs in the stock market, while book value is the value of shares based on the listing of the issuer. Firm value is measured using the following formula (Houston, 2014: 151-152).

### **Profitability Ratio**

According to Kasmir (2017:157) Ratio is: "The ratio to assess the company's ability to seek profit or profit within a certain period. This ratio also provides a measure of the level of management effectiveness of a company which is indicated by the profit generated from sales or from investment income.

### **Liquidity Ratio**

According to Kasmir (2017: 110) the liquidity ratio shows the company's ability to pay its short-term debts (liabilities) that are due, or the ratio to determine the company's ability to finance and fulfill obligations (debts) when billed.

### **Solvency Ratio**

According to Kasmir (2017:113) Solvency Ratio is "a ratio used to measure the extent to which company assets are financed with debt. This means that the amount of debt used by the company to finance its business activities when compared to using its own capital.

### **Hypothesis**

Based on the theoretical basis and previous research above, this study proposes the following hypotheses:

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H1: It is suspected that there is a positive influence between profitability and firm value in the health sector listed on the Indonesia Stock Exchange in 2017 – 2020.

H2: It is suspected that there is a positive influence between liquidity and firm value in the sector health services listed on the Indonesia Stock Exchange in 2017 – 2020.

H3: It is suspected that there is a positive influence between solvency on firm value in the listed health sector on the Indonesia Stock Exchange in 2017–2020.

**conceptual framework**

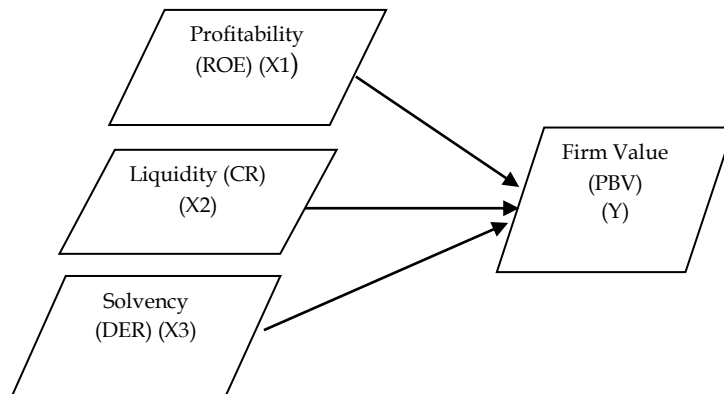


Figure 2.1 Conceptual Framework

**3. RESEARCH METHODOLOGY**

**3.1 Types of research and research locations**

Researchers use jenis quantitative research. The research location is an object used in research. Location used in this research namely health companies listed on the Indonesia Stock Exchange in 2017, 2018, 2019, 2020 taken from the official website [www.idx.co.id](http://www.idx.co.id).

**3.2 Population and Sample**

In this study, the population is health companies listed on the Indonesia Stock Exchange and the research period is from 2017-2020, totaling 10 companies. Sampling in this study uses panel data, which is a combination of cross-sectional data with time series data (Gujarati and Porter, 2009:237). The sample has the following criteria: all companies on the Indonesia Stock Exchange that issue financial reports on a timely basis, have profits and distribute dividends consecutively for 4 years, namely 2017-2020. Based on these criteria, 10 companies were obtained. This research was conducted with 4 observations, namely in 2017-2020. so that the number of companies observed is 40 company data.

**3.3 Types and Sources of Data**

In this study, the data used is quantitative data, namely information data from financial reports in the form of numbers or numbers Sugiyono (2015:23). From the figures obtained will be analyzed further in data analysis. Health companies listed on the Indonesia Stock Exchange (IDX) in 2017-2020.

The data used in this research is secondary data. The secondary data comes from financial report data on the Indonesia Stock Exchange obtained from Healthcare companies for the 2017-2020 period.

### 3.4 Data Collection Techniques

In this study the data collection with documentation. Data collection with documentation is to collect company data to be studied, the data is in the form of the company's annual financial statements for 2017-2020 which contains balance sheets, profit and loss, which have been published on the Indonesia Stock Exchange obtained from the website [www.idx.co.id](http://www.idx.co.id).

### 3.5 Variable Operational Definition

#### Dependent Variable

1. Firm value is the result of management's work from several dimensions, namely net cash flow, growth and cost of capital. an indicator of the value of the company is the stock price.

$$Price\ Book\ Value = \frac{\text{Harga Pasar Per Saham}}{\text{Nilai Buku Per Saham}}$$

#### Dependent Variable

#### Independent Variable

1. Profitability

Profitability is a ratio that shows the company's ability to generate profits over a certain period. In this research, the indicator used is ROE.

$$Return\ On\ Equity = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Total Ekuitas}}$$

2. Liquidity

Liquidity is a ratio that describes the company's ability to pay short-term debt (short-term debt) as they fall due. The indicator used to measure liquidity is the Current Ratio.

$$Current\ Ratio = \frac{\text{Aktiva Lancar}}{\text{Hutang Lancar}}$$

3. Solvency

Solvency is the ratio used to measure the extent to which the company's activities are financed with debt. The indicator used to measure the solvency ratio is the Debt to Equity Ratio.

$$Debt\ To\ Equity\ Ratio = \frac{\text{Total Hutang}}{\text{Total Ekuitas}}$$

### 3.6 Data analysis technique

The method used is multiple linear regression analysis. This analysis is used to determine the relationship of the independent variable (X) to the dependent variable (Y). The formula used by multiple linear regression is as follows:

$$Y = + 1X_1 + 2X_2 + 3X_3 + e$$

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

This study is to examine the effect of the independent variables proxied into Return on Equity, Current ratio, Debt to Equity on Price Book Value as the dependent variable. The results of descriptive statistical calculations are as follows:

**Table 4.1 Descriptive Statistical Results**

Variable	N	Minimum	Maximum	mean	Std. Deviation
PBV	40	,6	2070	453.10	440.419
ROE(X1)	40	,1	1670	222.05	378,166
CR(X2)	40	,10	873	277.22	256,492
DER(X3)	40	,0	1171	138,60	245.080

Source: SPSS Output Results (processed data)

### 4.2 Classic Assumption Test Results

#### 1) Normality test

Based on the output below, the normality test using the One Sample Kolmogorov Test resulted in an Asymptotic Significance of 0.058, greater than 0.05. Based on the normality test, it can be said that the regression residual value in this study is normally distributed.

**Table 4.2 Normality Test Results  
 One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		40
Normal Parameters, b	mean	.0000000
	Std. Deviation	266.9049377
		0
Most Extreme Differences	Absolute	.137

	Positive	.137
	negative	-.095
Test Statistics		.137
asymp. Sig. (2-tailed)		.058c

a. Test distribution is Normal.

*Source: SPSS Output Results (processed data)*

Based on table 4.2 the output results can be obtained a significance value of 0.058. because the significance value is more than 5%, it can be concluded that the data is normally distributed.

## 2) Multicollinearity Test

From the results of data processing, the Tolerance (TOL) value is greater than 0.10 and the Variance Inflation Factor (VIF) is less than 10, it can be concluded that the regression model does not have multicollinearity problems.

**Table 4.3 Multicollinearity Test Results**

Independent Variable	Tolerance Value	VIF	Information
ROE (X1)	0.623	1,605	Non Multicollinearity
CR(X2)	0.786	1,272	Non Multicollinearity
DER X3)	0.630	1,588	Non Multicollinearity

*Source: SPSS Output Results (processed data)*

Based on table 4.3, the results obtained from the data management Tolerance value of each variable is more than 0.10 and the Variance Inflation Factor (VIF) value of each variable is not more than 10. So it can be concluded that the regression model does not have multicollinearity problems.

## 3) Autocorrelation Test

Based on the output results below, it can be seen that the regression model can be said to be free from correlation if the value of Durbin Watson is greater than the value of du.

**Table 4.4 Autocorrelation Test Results**

Du	4-du	DW value	Conclusion
1.6589	2.3411	1,792	Non Autocorrelation

*Source: SPSS Output Results (processed data)*

The results of the autocorrelation test in the table indicate that the Durbin – Watson value is 1.792, which is between the du value (1.6589) and the 4-du value (2.3411), so it can be concluded that there is no autocorrelation.



#### 4) Heteroscedasticity Test

Based on the output below, it can be seen that the significance value (sig). of each independent variable, namely profitability (X1), liquidity (X2), and solvency (X3) is greater than alpha 5% or 0.05, which means that there is no heteroscedasticity problem in the three independent variables.

**Table 4.5 Heteroscedasticity Test Results**

Variable	Sig.	Information
Profitability (X1)	0.446	There are no symptoms of heteroscedasticity
Liquidity (X2)	0.024	There are no symptoms of heteroscedasticity
Solvency (X3)	0.050	There are no symptoms of heteroscedasticity

Source:  
SPSS  
S  
Output

ut Results

This shows that each variable has a significance value of more than 0.05 so that there are no symptoms of heteroscedasticity.

#### 5) Multiple Linear Regression Test

Based on the results of research using SPSS version 26, the regression model equation with firm value as the dependent variable is explained as follows:

**Table 4.6 Multiple Regression Test Results**

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1,450	62,699		2,313	.027
	ROE	.501	.143	.430	3,513	.001
	CR	.418	.187	.243	2,233	.032
	DER	.584	.219	.325	2,672	.011

a. Dependent Variable: PBV  
 Source: SPSS Output Results (processed data)

Looking at the Unstandardized Coefficients Beta value in table 4.6, it can be determined the multiple linear regression equation resulting from this study, as follows:

$$Y = 1.450 + 0.501X_1 + 0.418X_2 + 0.584X_3$$

1. The regression coefficient value for the Return on Equity variable is 0.501 and is positive.
2. The regression coefficient value for the Current ratio variable is 0.418 and is positive.
3. The regression coefficient value for the Debt to Equity Ratio variable is 0.584 and is positive.

#### 4.3 Hypothesis Test Results

**1) F Test Results (Model Feasibility Test)**

Testing the hypothesis in this study using the f test or known as the Feasibility Test Model aims to see how much influence all the independent variables (independent) in this case Return On Equity, Current Ratio, and Debt to Equity Ratio together on the dependent variable (dependent). ).

**Table 4.7 F . Test Results ANOVAa**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5022929,982	3	1674309.994	23,713	.000b
	Residual	2541847.618	36	70606,878		
	Total	7564777.600	39			

a. Dependent Variable: PBV

b. Predictors: (Constant), DER, CR, ROE

Source: SPSS Output Results (processed data)

Based on table 4.6 From the results of the F test, the Fcount value is 23,713 while the Ftable is F(3.36); (0.05) the value is 1.68488 so that Fcount > Ftable and the significance level is 0.000 at the 5% level then ( 0.000 < 0.05). This means that the independent variables are tested together which consists of profitability, liquidity, and solvency have a significant effect on firm value.

**2) T-Test Results (Partial Test)**

Hypothesis testing in this study uses the t test. To find out whether the independent variables individually have a significant effect on the dependent variable, a t test will be carried out with a significance level of = 5%. The calculation results of each variable can be seen in the following table.

**Table 4.8 t test results Coefficientsa**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	145,029	62,699		2,313	.027
	ROE	.501	.143	.430	3,513	.001
	CR	.418	.187	.243	2.233	.032
	DER	.584	.219	.325	2,672	.011

a. Dependent Variable: PBV

Based on the results of table 4.8 it can be explained that:

1. The results of the t-test of the Return On Equity variable indicate that there is a significant effect between Return On Equity and Price to Book Value ( $0.001 < 0.05$ ), so  $H_0$  is rejected and  $H_a$  is accepted. so while the t count variable Return On Equity is positive, namely 3.513. This means that the Return On Equity variable has a positive and significant effect on Price to Book Value.
2. The results of the t-test of the Current Ratio variable show that there is a significant effect between the Current Ratio and Price to Book Value. ( $0.032 < 0.05$ ) then  $H_0$  is rejected and  $H_a$  is accepted. so while t calculate the variable Current Ratio is positive, namely 2.233. This means that the Current Ratio variable has a positive and significant effect on Price to Book Value.
3. The results of the t-test of the Debt to Equity Ratio variable show that there is a significant effect between the Debt to Equity Ratio and the Price to Book Value ( $0.11 < 0.05$ ), so  $H_0$  is rejected or  $H_a$  is accepted. so while t count variable Debt to Equity Ratio is positive 2.672. This means that the Debt to Equity Ratio variable has a positive and significant effect on Price to Book Value.

### 3) Coefficient of Determination

The coefficient of determination ( $R^2$ ) is basically how far the ability measured by the model in explaining the variation of the independent variable. The coefficient of determination ( $R^2$ ) can be seen in the following table:

**Table 4.9 Results of the Coefficient of Determination . Analysis  
 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.815a	.664	.636	265,720

a. Predictors: (Constant), DER, CR, ROE

Source: SPSS Output Results

Based on table 4.9 that shows the value of Adjusted R Square is 0.636 or 63.6%. This means that the independent variables in the form of Current ratio, Return On Equity and Debt to Equity Ratio together affect the dependent variable of company value by 63.6%, while the remaining 36.4% is influenced by other variables not included in this study.

## RESULT INTERPRETATION

### The Effect of Profitability (ROE) on Firm Value

The results show that the profitability variable (ROE) has a positive and significant effect on firm value (PBV). Positive results indicate that the higher the return in equity, the better. If the company has a position so that it will cause investors' views of the company to increase. These results are in accordance with research conducted by Alfredo Mahendra DJ (2011).

### **Effect of Liquidity (CR) on Firm Value**

The results show that the Liquidity variable (CR) has a positive and significant effect on firm value (PBV). Positive results indicate that the greater the value of the current ratio, the better the company because it shows that the company has the ability to pay or have assets that are greater than its current debt (Fahmi, 2014: 58).

### **The Effect of Solvency (DER) on Firm Value**

The results show that the Solvency variable (DER) has a positive and significant effect on Company Value (PBV). Positive results indicate that the greater the value of the debt to equity ratio, the better the company. This is because the company shows that it has the ability to fulfill its obligations both in the short and long term. These results are in accordance with Rompas' research (2013) which concludes that the solvency ratio (DER) has a significant effect on firm value.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusion**

Based on the results of the analysis and discussion described in the previous chapter, the conclusions of this study are as follows:

1. Profitability (Return on Equity) has a positive and significant effect on firm value. the better the profitability ratio, the better the ability to describe the company's high profitability.
2. Liquidity (Current Ratio) has a positive and significant effect on firm value. The liquidity of a company is able to describe the company's ability to meet its short-term obligations to short-term creditors, the greater the ratio of cash to debt, the better.
3. Solvency (Debt to Equity Ratio) has a positive and significant effect on firm value. If the Debt to Equity Ratio is higher, while the proportion of total assets does not change, the debt owned by the company is getting bigger.

### **Recommendation**

1. For Investors and Potential Investors

For investors who want to invest and see firm value as a consideration, they should pay attention to Return on Equity, Current Ratio, Debt to Equity Ratio, because the three variables in this study have a significant influence on firm value.

2. For the next researcher

Should add other variables that can affect firm value or reduce variables that are considered to have the same calculation, the next researcher can extend the research period so that better and more accurate research results can be obtained,

3. For issuers

Based on the research results, the company is expected to always maintain its capital level, so that it will improve the financial performance of the health company.

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