

# The Influence of Profitability and Liquidity on Company Value with Capital Structure as Moderating Variables

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## ABSTRACT

This study aims to examine the effect of profitability and liquidity on company value with capital structure as a moderating variable. Company value is essential to know because it reflects growth and performance. The object of this research is pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (IDX) during 2015-2019. because the 2015-2035 National Industrial Development Master Plan states the pharmaceutical and pharmaceutical ingredients industry is one of the mainstay manufacturing sectors that get development priority because it plays a significant role as the main driver of the national economy. This quantitative research is included in associative research to obtain information about the influence or relationship between two or more variables. The results of study shows that one company that has just been listed on the IDX from 2018 so that it becomes a deduction in the sample used.

## INTRODUCTION

This study examines the effect of Profitability and liquidity on company value with capital structure as a moderating variable. According to [Fuad et al. \(2006\)](#), company value is the value of a company related to its share price. Moreover, company value is of interest to its stakeholders, who can utilize information about the value in a variety of ways to achieve their objectives, such as investing or managing the company ([Tarczyński, Tarczyńska-Łuniewska, & Majewski, 2020](#)). This opinion is based on the idea that a price increase is identical to an increase in the prosperity of shareholders and an increase in the value of the company.

According to the Ministry of Industry, the pharmaceutical industry has a vital role in investing in the Indonesian economy, so investors need to know the development of the value and performance of companies in the pharmaceutical industry. The profitability ratio can calculate the company's ability to generate profits. The

profitability ratio used aims to assess the company's ability to seek profit in a certain period. This ratio can also show its ability to control its operational costs. In addition, profitability is viewed as a measure of progress, improvement, and a factor indicating the company's long-term sustainability ([Seissian, Gharios, & Awad, 2018](#)).

Companies that have bad liquidity in the long term can affect the company's solvency level. Because, the use of debt for corporate funding has a large risk, it requires careful consideration. Whether other factors can weaken or strengthen the influence of Profitability and liquidity in influencing company value. For this reason, researchers are interested in adding moderating variables to this study. The moderating variable itself is an independent variable that can strengthen or weaken the influence of other independent variables on the dependent variable ([Ghozali, 2018](#)).

According to [Barauallo \(2011\)](#), the capital structure is everything related to company financing internally and externally within a certain period. The

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capital structure is essential to note because it can result in different financial conditions.

The purpose of this research include knowing the effect of Net Profit Margin on company value, knowing the effect of the Current Ratio on the company's value, knowing the effect of capital structure as a moderating variable net profit margin

on company value, and knowing the effect of Capital Structure as a moderating variable Current Ratio on company value.

The following are some of the previous studies that have been found which have similarities in terms of theory, objects and variable.

**Table 1**  
**Previous Research**

No	Researcher	Research Title	Variables used	Research result
1	Cahyono, Surasni, and Hermanto (2019)	The Effect of Profitability on Company Value with Capital Structure as Moderating Variable	Dependent •The value of the company Independent • Profitability Moderation • Capital Structure	Profitability has a positive effect on company value. The capital structure acts as a quasi moderator (pseudo moderator).
2	Santoso (2018)	Effect of Profitability, Company Size and Growth Rate on Company Value with Capital Structure as Moderating Variable	Dependent •The value of the company Independent • Profitability • Company size • Growth rate Moderation • Capital Structure	Profitability, company size and growth rate affect company value. Capital structure can only moderate Profitability and growth rate on company value.
3	Sulistiowati (2020)	Effect of Liquidity and Profitability on Company Value with Capital Structure as Moderating Variable	Dependent • The value of the company Independent • Profitability • Liquidity Moderation • Capital Structure	Profitability and liquidity result in a negative and significant company value. The capital structure acts as a pure moderator to moderate Profitability and liquidity to company value.
4	Hardiyanto (2020)	Effect of Current ratio, Net Profit Margin, Debt to Equity Ratio dan Earning per Share terhadap Nilai Perusahaan	Dependent • Cooperation value Independen • Current ratio • Net profit margin • Debt to equity ratio • Earning per share	<i>Current ratio, net profit margin dan earning per share</i> berpengaruh positif dan signifikan terhadap nilai perusahaan. Untuk <i>debt to equity ratio</i> berpengaruh positif namun tidak signifikan.
5	Husna and Satria (2019)	Effects of ROA, DER, CR, DPR and Company Size on Company Value.	Dependent •The value of the company Independent • ROA • DAR • CR • Company size • DPR	ROA and company size positively affect company value (PBV), while DER, CR, and DPR negatively affect.
6	Aggarwal dan Padhan (2017)	Impact of Capital Structure on Company Value: Evidence from Indian Hospitality Industry	Dependent • The value of the company • Independent company quality • leverage • size • profitability • tangibility • growth • liquidity • growth in gros domestic product • inflation	Research findings reveal a significant relationship between company value and company quality, leverage, liquidity, size and economic growth.
7	Kurnianto (2017)	Analysis of the Effect of Financial Performance and Corporate Social Responsibility on Company Value	Dependent •The value of the company Independent • ROA • ROE • OPM • NPM • CSR	Only NPM has a negative and significant effect on company value. While ROA, ROE, OPM and CSR have a positive and significant effect.

8 Aslindar dan Lestari (2020)	Effect of Profitability, Liquidity and Growth Opportunities on Company Value with Capital Structure as Intervening Variable	Dependent •The value of the company Independent • Profitability • Liquidity • Growth opportunities Intervening • Capital structure	Only the liquidity and growth opportunities variables that affect the capital structure. Only the profitability variable produces a positive direction for its effect on company value. The capital structure can only intervene in the profitability variable influencing company value.
9 Purnomo (2018)	Effect of Profitability and Leverage on Company Value and Capital Structure Intervening Variables	Dependent •The value of the company Independent • Profitability • Leverage Intervening • Capital Structure	Profitability and leverage have a positive and significant effect on capital structure. Profitability, leverage, and capital structure significantly affect company value. Capital structure can mediate Profitability and leverage in influencing company value.
10 Kusna dan Setijani (2018)	Analysis of the Effect of Financial Performance, Growth Opportunity and Company Size on Capital Structure and Company Value	Dependent •The value of the company • Capital structure Independent • Liquidity • Profitability • Growth Opportunity • Company size	Only Profitability and capital structure have a negative and significant impact on company value. Meanwhile, the capital structure is only affected by Profitability and liquidity significantly negatively.

Source: a review of research results

**Framework**

**a. Effect of Net Profit Margin (NPM) on Company Value**

The ultimate goal to be achieved by the company is to get the maximum profit or profit. NPM is a profitability ratio that describes the management's ability to compensate margin for owners who have provided their capital for risk. The company's ability to generate profits from sales is the information needed by investors.

By looking at the value of NPM, information held by outsiders will increase, and according to good information, signal theory can be a signal that influences decisions. Thus, knowing the NPM can influence investors' interest in buying company shares. This is in line with previous research conducted by (Hardiyanto, 2020), showing that the net profit margin has a positive and significant effect on the projected company value with the PBV ratio.

**b. Effect of Current Ratio (CR) on Company Value**

One of the liquidity ratios is the CR. The ratio describes the ratio of current assets to current liabilities. Current assets are considered the most liquid or the easiest to liquidate if intended to pay debts immediately. By knowing the company's ability to pay debts with current assets, the health of the company's financial condition can be seen. This ratio can also

potentially increase profits and supervision of management in using its current assets.

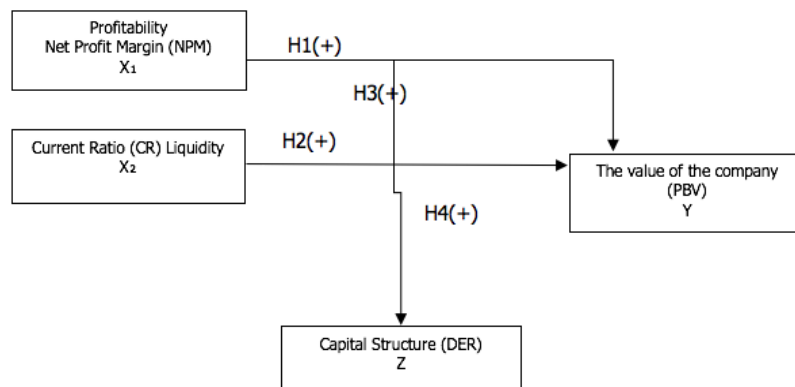
**c. Capital Structure Moderates Net Profit Margin (NPM) on Company Value**

Capital structure is the proportion of internal capital with external capital. When a company uses a fair amount of debt composition as a source of capital, it indicates that the company has better performance to increase investor confidence (Kusna & Setijani, 2018). Moreover, the increase in company value is in line with the increase in corporate leverage (Ross, 1977). Some of the results of several previous studies found empirical evidence that capital structure can strengthen the effect of Profitability on company value (Munthe, Inge, 2018; Anggraini, 2017; Santoso, 2018; and Cahyono et al., 2019).

**d. Capital Structure Moderates the Effect of Current Ratio (CR) on Company Value.**

Liquidity is the level of the company's ability to meet its current obligations. Companies with high liquidity will gain the trust of external investors because they are considered capable of fulfilling their short-term obligations. The company will also be considered to generate the returns that investors want.

Sulistiowati (2020) states that there is a role for DER as a ratio to calculate the capital structure that can bridge the influence of CR on company value.



**Figure 1. The research model of the relationship between Profitability and Liquidity on Company Value with Capital Structure as a moderating variable**

Description:

Y : Dependent variable company value

X1: Independent variable net profit value

X2: Independent variable current ratio

Z : Modal structure moderating variable

H : Path and path coefficient

### Hypothesis

Based on the explanation of the framework and research model above, the researcher proposes several hypotheses as quick answers to the formulation of the research problem as follows:

H1: Net Profit Margin (NPM) positively affects company value.

H2: Current Ratio (CR) positively affects company value.

H3: Capital structure can strengthen the influence of Net Profit Margin (NPM) on Company Value.

H4: Capital structure can strengthen the effect of the Current Ratio (CR) on Company Value.

## METHOD

### The scope of research

In this study, the researcher wanted to know the relationship between Profitability and liquidity as independent variables in influencing company value as the dependent variable, also using capital structure as a moderating variable. This study includes companies in the pharmaceutical sub-sector that have been listed on the IDX for the 2015-2019 period.

### Population and Sample

The population in this study is the annual financial statements of pharmaceutical sub-sector companies from 2015 to 2019 that have gone public and are listed on the Indonesia Stock Exchange (IDX). The five years is used to see the consistency of the influence of the independent variable on the dependent variable.

This study uses a purposive sampling method, selecting a sample group or subject with specific criteria. The sample in this study also used the following criteria:

- Pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange from 2015 – 2019.
- Companies that issue audited financial statements as of December 31 in 2015-2019.
- The company has the 2015-2019 financial data needed during the research.

### Data Types and Sources

The data was taken from secondary data. Secondary data comes from second-hand sources that were already available before the research was conducted. Sources of data are taken based on each company's website, the sample of the study, and the official website of the Indonesia Stock Exchange to obtain financial reports and the necessary financial data.

### Data collection technique

The method used in this research is documentation, namely by collecting, recording, reviewing and processing secondary data in financial reports and financial data of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange through the official IDX website.

### Research variable

#### Dependent Variable (Company Value)

The dependent variable used is company value in this study. Company value in this study is proxied by Price to Book Value (PBV). Namely, the ratio can describe the performance of stock prices with book value. PBV can be calculated by the following formula:

$$PBV = \frac{\text{Price per share}}{\text{Book value per share}}$$

The formula can calculate the book value (book value) of shares:

$$\text{book value} = \frac{\text{total equity}}{\text{number of circular share}}$$

### Independent Variable

Independent variables are considered to be able to influence the dependent variable. The independent variables in this study are:

#### a. Profitability

According to the company's ability to generate profits and measure the level of management effectiveness can be measured by the profitability ratio. One of them are NPM and ROA.

NPM is a calculation or ratio showing the percentage of net profit from sales (Kasmir, 2016). The formula for calculating NPM is:

$$NPM = \frac{\text{net profit}}{\text{net sales}}$$

(Source: Kasmir, 2016)

#### b. Liquidity

Liquidity is the level of a company's ability to meet its current obligations (Kasmir, 2016).

One of the liquidity ratios is the Current Ratio (CR). CR is a ratio that describes the ratio of current assets to current liabilities.

This ratio can reflect the level of current assets in covering current liabilities to increase the company's value. The formula for calculating CR is as follows (Kasmir, 2016):

$$CR = \frac{\text{current asset}}{\text{current debt}}$$

Kasmir (2016) explains that if the resulting CR value is more than 200%, it can be said that the company is liquid. If less than 200%, the company can be illiquid (not liquid).

### Moderating Variable (Capital Structure)

Moderating variables can strengthen or weaken the relationship between the independent and dependent variables (Sugiyono, 2013). In this study, the moderating variable used is capital structure.

The capital structure in this study is proxied by the Debt to Equity Ratio (DER). Since 2016, the safe scale of the DER ratio has been set to 4:1. Kasmir (2016) states the formula for calculating DER is as follows:

$$DER = \frac{\text{total debt}}{\text{total own capital}}$$

### Variable Operational

**Table 2**  
**Variable Operational**

No	Variable	Definition	Indicator	Scale
1	Company Value (PBV) (Y)	Price to Book Value (PBV) is a ratio that can describe the comparison of stock prices in the market with their book value (Sutrisno, 2014:12)	$\frac{\text{Price per share}}{\text{Book value per share}}$	Ratio
2	Profitabilitas (NPM) (X <sub>1</sub> )	Net Profit Margin is a ratio that reflects the ability of the company to generate profits in certain sales (Kasmir, 2016)	$\frac{\text{net profit}}{\text{net sales}}$	Ratio
3	Likuiditas (CR) (X <sub>2</sub> )	The current ratio is a ratio that can show the company's ability to meet maturing obligations (Kasmir, 2016)	$\frac{\text{current asset}}{\text{current debt}}$	Ratio

### Data Analysis Methodology

This study tested the regression with moderating variables that tested the interaction. In (Ghozali, 2018), testing with moderating variables can use Moderated Regression Analysis (MRA), a particular application of multiple linear regression that contains an element of interaction, namely multiplication between independent variables. In this study, data management uses SPSS 25. Operation in this program uses descriptive menus and simple dialogue boxes but still with a relatively high level of statistical analysis (Ghozali, 2016).

### Descriptive Statistical Analysis

The descriptive statistical analysis aims to emphasize the characteristics of each variable without comparing it with other variables.

#### 1. Classical Assumption Test

Before performing the linear regression test, it is necessary to test the classical assumptions first. This test is carried out so that the data used is free from bias and is by the classical assumption criteria.

#### 2. Normality Test

The normality test determines whether the residual variable has a standard data distribution (Ghozali, 2018). Decision making in the Kolmogorov-Smirnov test is based on:



- a) If the result of the Kolmogorov-Smirnov test is below 0.05, then the distribution pattern can be declared abnormal, then the regression model does not meet the assumption of normality.
- b) If the result of the Kolmogorov-Smirnov test is above 0.05, then the distribution pattern is regular and meets the assumption of normality.

**3. Multicollinearity Test**

Multicollinearity test aims to determine whether there is a correlation between the independent variables in the regression model (Ghozali, 2018).

It can be measured from the tolerance and VIF (variance inflation factor) values to determine multicollinearity.

**4. Heteroscedasticity Test**

The heteroscedasticity test aims to test whether there is an inequality of residual variance from one observation to another in a regression model (Ghozali, 2018). If there is an equation of variance, it is called homoscedasticity. Moreover, if vice versa, it is called heteroscedasticity. A good research model has results that do not contain heteroscedasticity (Ghozali, 2018).

**5. Autocorrelation Test**

The autocorrelation test is used to determine whether there is a correlation between consecutive observations over time that are related to each other (Ghozali, 2018).

Autocorrelation test can be known by using the Durbin Watson test (DW Test).

**Table 3**  
**Autocorrelation retrieval**

Zero Hypothesis	Decision	iF
There is no positive autocorrelation	Reject	$0 < d < dl$
There is no positive autocorrelation	No decision	$dl \leq d \leq du$
There is no negative autocorrelation	Reject	$4 - dl < d < 4$
There is no negative autocorrelation	No decision	$4 - du \leq d \leq 4 - dl$
There is no autocorrelation, positive or negative	No reject	$du < d < 4 - du$

(Ghozali, 2018).

**Hypothesis testing**

**1. Partial Test (t Test)**

A partial test determines how significant the independent variable is to explain the dependent variable.

**2. Simultaneous Significance Test (F Test)**

The F test is used to determine the effect of the independent variables (Net Profit Margin and Current Ratio) together on the dependent variable (Price to Book Value).

**3. Coefficient of Determination Test R<sup>2</sup>**

Coefficient of determination test is used to test how far the variation of the dependent variable is explained (Ghozali, 2018). The coefficient value of this test is between 0 (zero) and 1 (one). If the resulting coefficient value is small, it indicates that the independent variable's ability to explain the variation of the dependent variable is limited.

**4. Moderated Regression Analysis**

The regression analysis method using Moderated Regression Analysis (MRA) can test the effect of moderator variables. To test the hypothesis, the formula that can be used is:

Model I Regression Equation:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + e$$

Model II Regression Equation:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3Z + \beta_4X_1*Z + \beta_5X_2*Z + e$$

Description:

Y = Dependent variable (PBV)

$\alpha$  = Konstanta

$\beta_1 - \beta_5$  = Koefisien regresi

X1 = *Net Profit Margin* (NPM)

X2 = *Current Ratio* (CR)

$\beta_4X_1*Z$  = NPM interaction with DER

$\beta_5X_2*Z$  = Interaction of CR with DER

Z = Capital Structure (Debt to Equity Ratio)

e = Standard error (error term)

Types of moderating variables (Ghozali, 2018):

1. Homologizer Moderator

This variable means that in moderating the independent variable (X), the moderating variable does not interact and is significantly related to either the independent variable (X) or the dependent variable (Y).

2. Quasi Moderators

Quasi moderating variable is related to the variables Y and X. It is related to variable X. This variable can modify the relationship between the independent variable (X) and the dependent variable (Y).

3. Pure Moderators

Pure variable interacts with the independent variable (X) but is not related to the dependent variable (Y) or the independent variable (X).

## RESULTS AND DISCUSSION

The object of this research is pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (IDX) during 2015-2019. because the 2015-2035 National Industrial Development Master Plan states the pharmaceutical and pharmaceutical ingredients industry is one of the mainstay manufacturing sectors that get development priority because it plays a significant role as the main driver of the national economy.

The Industrial Information Booklet published by Pusdatin in 2017 concluded that the

pharmaceutical sector is one of the main sectors that investors aim to encourage growth through investment.

Based on this information, the pharmaceutical industry has an essential role in investing in the Indonesian economy, so investors need to know the development of the value and performance of companies in the pharmaceutical industry. The final sample of this study was nine companies in 5 years of observation, so the total number of samples was 45 observations. Table 4 presents the selection process.

**Table 4**  
**Sample Selection Procedure**

Sample Selection Criteria	Amount
Pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange from 2015 – 2019.	10
Companies publish audited financial reports and annual reports from December 31, 2015-2019.	0
The company has the 2015-2019 financial data needed during the research.	(1)
Amount	9

The results of purposive sampling show that the final sample used in the study is nine companies per year.

**Table 5**  
**Sample of Pharmaceutical Sub-Sector Companies**

No	Company Code	Company name
1	DVLA	PT. Darya-Varia Laboratoria Tbk
2	INAF	PT. Indofarma Tbk
3	KLBF	PT. Kalbe Farma Tbk
4	KAEF	PT. Kimia Farma Tbk
5	MERK	PT. Merck Tbk
6	PYFA	PT. Pyridam Farma Tbk
7	SCPI	PT. Merck Sharp Dohme Pharma Tbk
8	SIDO	PT. Industri Jamu dan Farmasi Sido Muncul Tbk
9	TSPC	PT. Tempo Scan Pacific Tbk

Source: analyzed secondary data (2021)

### Descriptive Statistic Analysis

In this study, the variables used include the Company Value (PBV), Net Profit Margin (NPM), Current Ratio (CR), and Debt.

**Table 6**  
**Description of Research Variables**

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
NPM	45	-2,84	190,20	12,3051	27,90708
CR	45	1,00	9,28	3,1624	1,88314
DER	45	7,61	494,65	81,7878	90,33037
PBV	45	,17	38,90	5,0662	8,03655
Valid N (listwise)	45				

Source: Output SPSS 25

**Classical Assumption Test**

Classical assumption testing concompans that the resulting regression equation has estimation accuracy, is consistent and does not produce bias.

**Normality Test**

The normality test is used to determine whether the residuals in the regression model have

a normal distribution. In this study, the One-Sample Kolmogorov Smirnov was used. The results of the normality test in this study can be seen in table 7.

**Table 7**  
**Mode Normality Test Results I**  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters <sup>b</sup>	Mean	,0000000
	Std. Deviation	7,85986623
Most Extreme Differences	Absolute	,220
	Positive	,220
	Negative	-,156
Test Statistic		,220
Asymp. Sig. (2-tailed)		,000 <sup>c</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Based on table 7 the normality test results show that the distribution of the data used in this study is not normal because of the value of Sig. (2-tailed) is  $0.000 < 0.05$ . It can also be seen from observing the histogram image and the resulting normal P-Plot:

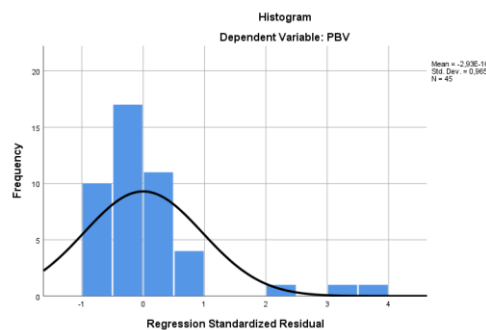


Figure 2. Normality Test Histogram



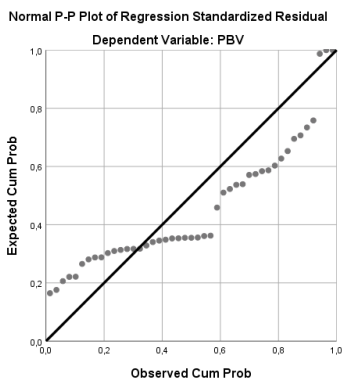


Figure 3. Normal P-Plot Normality Test

The histogram image of the normality test above shows the data spread that is far skewed to the left and is not normal. Meanwhile, the P-Plot shows points far from the diagonal line in the regular line drawing. Thus, by observing the results of the two images above, it can be concluded that the regression model used violates the normality test rules.

The regression results in this research model show five outlier data above the whisker called extreme data (Junaidi, 2015). So that the final observations are 40 observations. The results of the Kolmogorov Smirnov One-Sample test after the outliers are:

**Table 8**  
**Normality Test Results after Outlier Model I**

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters <sup>b</sup>	Mean	,0000000
	Std. Deviation	1,65778065
Most Extreme Differences	Absolute	,115
	Positive	,115
	Negative	-,086
Test Statistic		,115
Asymp. Sig. (2-tailed)		,196 <sup>c</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Source: Output SPSS 25

**Tabel 9**  
**Normality Test Results after Outlier Model II**

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters <sup>b</sup>	Mean	,0000000
	Std. Deviation	,68058538
Most Extreme Differences	Absolute	,088
	Positive	,088
	Negative	-,068
Test Statistic		,088
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Source: Output SPSS 25

Based on Tables 8 and 9, the normality test results using the one-sample Kolmogorov-Smirnov test show the Asym.Sig value. (2-tailed) of 0.196. And 0.200. This shows that the data are distributed

generally because the significance level is above 0.05. In addition to the significance value, the normality test can also be seen by observing the standard P-Plot image presented in the figure 4.

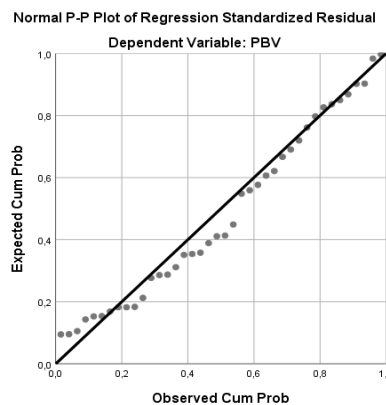


Figure 4. Normal P-Plot  
Sumber: Output SPSS 25

Based on Figure 4, it can be observed that the plotting points spread around the diagonal line. Thus, the Normal P-Plot Figure shows a typical distribution pattern.

**Multicollinearity Test**

The multicollinearity test was used to determine whether there was a correlation between the independent variables. The following is the multicollinearity test used in this research variable:

**Table 10**  
**Multicollinearity Test Results**  
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	,908	,856			1,061	,296		
NPM	,309	,063	,796		4,920	,000	,478	2,090
CR	-,148	,211	-,112		-,703	,487	,498	2,009
DER	-,001	,005	-,035		-,261	,796	,708	1,412

a. Dependent Variable: PBV

Source: Output SPSS 25

It can be seen in Table 10 that the results of the multicollinearity test of the variables in this study can be concluded that there is no multicollinearity between the variables in the regression model in this study.

**Heteroscedasticity Test**

The heteroscedasticity test aims to determine whether there is an inequality of variance from the residual of one observation to another observation in the regression model. The results of the heteroscedasticity test from this study are:

**Table 11**  
**Heteroscedasticity Test Results**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,564	,594		,948	,349
LnX1	,079	,087	,183	,905	,372
LnX2	-,431	,206	-,483	-2,091	,044
LnZ	,100	,111	,192	,900	,374

a. Dependent Variable: ABS\_RES3

Source: Output SPSS 25

The results of the heteroscedasticity test in Table 11 show no heteroscedasticity or relationship between the independent variables and the absolute value of the residuals in the regression model.

**Autocorrelation Test**

The autocorrelation test aims to test whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous) in the linear regression model (Ghozali, 2018). The following are the results of the autocorrelation test in this study:

**Table 12**  
**Model I . Autocorrelation Test Results**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Durbin-Watson
1	,741 <sup>a</sup>	,549	,511	1,72547	,679

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

b. Dependent Variable: PBV

Source: Output SPSS 25

Based on Table 12, the results of the autocorrelation test using Durbin Watson are 0.679 with a dl value of 1.3832 and a du value of 1.6662, where the decision making value (d) is in the  $0 < d < dl$  position, which means that it is included in the null hypothesis has no positive autocorrelation with the rejected decision. So, the conclusion that can be

drawn is that H0 is rejected because there are symptoms of autocorrelation. However, to overcome this, this study carried out a transformation to overcome the symptoms of autocorrelation. The selection of data transformations in this study is based on whether or not the autocorrelation coefficient (p) or Rho is known.

**Table 13**  
**Model I. Autocorrelation Test Results**

Model Summary					
9	R	R Square	Adjusted R Square	Std. The error of the Estimate	Durbin-Watson
1	,768 <sup>a</sup>	,590	,555	1,30098	2,068

a. Predictors: (Constant), Lag\_Z, Lag\_X1, Lag\_X2

b. Dependent Variable: Lag\_Y

Source: Output SPSS 25

Based on Tables 12 and 13, the results of the autocorrelation test using the Cochrane Orcutt method, it can be concluded that there is no autocorrelation in the regression model.

**Hypothesis Test**

**1. Simultaneous Test (F Test)**

A simultaneous test (F test) was conducted to determine whether all the independent variables used in the study had a simultaneous or joint effect on the dependent variable. The results of the

simultaneous test on the regression model I can be seen in table 14.

**Table 14**  
**Simultaneous Test Results (Model I)**

ANOVA						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	130,249	2	65,124	22,439	,000 <sup>b</sup>
	Residual	107,384	37	2,902		
	Total	237,633	39			

a. Dependent Variable: PBV

b. Predictors: (Constant), CR, NPM

Source: Output SPSS 25

Based on Table 14, it can be seen that the result of the calculated F value is 22.439 > F table 3.24. The resulting significance value is 0.000 < 0.05. So it can be concluded that the independent variables NPM and CR simultaneously affect the

dependent variable Price to book value (PBV). These results indicate that regression model I is in good condition. The simultaneous test (F test) on the regression model II is as follows:

**Table 15**  
**Simultaneous Test Results (Model II)**

ANOVA						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	138,259	5	27,652	9,461	,000 <sup>b</sup>
	Residual	99,374	34	2,923		
	Total	237,633	39			

a. Dependent Variable: PBV

b. Predictors: (Constant), MRA2, CR, MRA1, NPM, DER

Source: Output SPSS 25

Based on Table 15, the calculated F value is 9.461 > from F table 2.63. The resulting significance value is 0.000 < 0.05. This indicates that the simultaneous test on the regression model II is acceptable, which means that all independent variables NPM, CR, MRA1 (moderation) and MRA2 (moderation) have a simultaneous or joint effect on the dependent variable Price to book value (PBV).

## 2. Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination (R<sup>2</sup>) was carried out to determine how far the regression model could explain the dependent variable in the study. The results of the coefficient of determination in this study are as follows:

**Table 16**  
**Coefficient of Determination Test Results (Model I)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	,740 <sup>a</sup>	,548	,524	1,70361

a. Predictors: (Constant), CR, NPM

Source: Output SPSS 25

In table 16, it can be seen that the value of Adjusted R<sup>2</sup> in regression model 1 of this study is 0.524 or 52.4%. The independent variable used in this study can explain the effect of 52.4% on the dependent variable. In comparison, the remaining

47.6% is explained by other variables not examined in this regression model. Meanwhile, the coefficient of determination test performed on the regression model II can be seen in table 17.

**Table 17**  
**Coefficient of Determination Test Results (Model II)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	,763 <sup>a</sup>	,582	,520	1,70961

a. Predictors: (Constant), MRA2, CR, MRA1, NPM, DER

Source: Output SPSS 25

Based on Table 17, the adjusted R square value is 0.522 or equal to 52%, which means that the independent variable in regression model II can explain the dependent variable as much as 52%. The remaining 48% is not explained in this research model.

### 3. Multiple Regression Analysis

Based on the classical assumption test results that have been done previously, it can be concluded that the data in this study shows a normal distribution and does not occur heteroscedasticity, multicollinearity, and autocorrelation.

In addition, the regression model used can also be said to be a good regression model because it has passed the simultaneous test and the coefficient of determination.

Multiple regression analysis was used to determine the magnitude of the regression coefficient values in the research model and the resulting significance value to become the basis for testing the research hypothesis. Research model I is the result of the equation of net profit margin (NPM) and current ratio (CR) as the independent variable with Price to book value (PBV) as the dependent variable. Table 4. 16 shows the results of the regression analysis carried out on model I:

**Table 18**  
**Results of Regression Analysis (Model I)**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	,741	,560		1,323	,194
NPM	,313	,059	,808	5,270	,000
CR	-,137	,204	-,103	-,672	,506

a. Dependent Variable: PBV

Source: Output SPSS 25

Model I:

$$PBV = 0,741 + 0,313 NPM - 0,137 CR$$

H1: net profit margin (NPM) has a positive effect on company value (PBV)

Based on table 18, the regression analysis results in the model I above, it can be seen that NPM, which is an indicator of Profitability, has a significant positive effect on company value (PBV).

The regression equation results show that the constant coefficient value is 0.741, which can be interpreted if the Profitability (NPM) is constant, then the company value (PBV) becomes 0.741. Furthermore, the profitability regression coefficient (NPM) of 0.313 indicates that when Profitability (NPM) increases by one unit, the company value (PBV) will increase by 0.313 units. The higher the Profitability generated, the higher the company's value generated by the company. This means that Profitability has a positive effect on company value. So it can be concluded that Ho is rejected and Ha is accepted.

H2: Liquidity (CR) has a positive effect on company value (PBV)

The second hypothesis assumes a positive effect of liquidity calculated by the Current Ratio (CR) on the company value calculated by Price to book value (PBV). Based on the results of the regression analysis model I in table 4.16, it can be seen that the resulting regression coefficient value is -0.137 with a significance value of 0.506 greater than 0.05. It can be concluded that liquidity (CR) has an opposite or negative effect on company value (PBV). The resulting significance value is 0.506, more significant than the 5% or 0.05 degree of confidence. This indicates that the independent variable liquidity (CR) has no significant effect on the dependent variable of company value (PBV). Thus, in this study, Ha rejected Ho acceptance.

Furthermore, multiple regression analysis was performed on regression model II. This model is an

equation form of the independent variables profitability (NPM) and liquidity (CR), the dependent variable company value (PBV) and the interaction of the independent variable with the moderating

variable capital structure (DER). The results of the moderated regression analysis (MRA) test in regression model II can be seen as follows:

**Table 19**  
**Moderated Regression Analysis (MRA) Test Results Equation II**

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,692	,873		,793	,434
NPM	,292	,093	,753	3,154	,003
CR	,028	,268	,021	,103	,919
DER	,009	,010	,230	,932	,358
MRA1	,000	,002	-,040	-,162	,873
MRA2	-,005	,004	-,276	-1,313	,198

a. Dependent Variable: PBV

Source: Output SPSS 25

$$Y = 0,692 + 0,292 \text{ NPM} + 0,028 \text{ CR} + 0,009 \text{ DER} + 0,000 \text{ MRA1} - 0,005 \text{ MRA2}$$

Based on the results of the moderated regression analysis (MRA) test, the significance value of the capital structure variable (DER) was  $0.358 > 0.05$ . A variable is moderators homologized when it is insignificant for creators or predictors and insignificant when interacting with them (Ghozali, 2018).

## Discussion

### 1. Effect of Profitability (NPM) on Company Value (PBV)

The first hypothesis proposed assumes a positive influence of Profitability on company value. So, it can be concluded that the first hypothesis in this research is accepted. The results of the SPSS test on the first hypothesis explain that the higher the Profitability of the company, the higher the value of the resulting company.

By looking at the value of NPM, information held by outsiders will increase, and according to good information, signal theory can be a signal that influences decisions. So, when Profitability increases, it will also increase the level of confidence and interest to invest so that investor perceptions will be reflected well. That way, the demand for shares will increase, and the company's value will also increase.

Profitability or the company's ability to earn a profit is valuable information for investors to determine the company's financial condition and prospects in the future. So, if the profit generated increases, investor confidence in the company will also increase. The results of this

study are in line with research conducted by (Santoso, 2018), (Harahap, Septiani, & Endri, 2020) and (Hardiyanto, 2020), which states that Profitability is calculated by net profit margin (NPM) has a positive effect on company value.

### 2. Effect of Liquidity (CR) on Company Value (PBV)

The results showed that the resulting liquidity regression coefficient (CR) was  $-0.137$ , which means that when liquidity (CR) increases by one unit, the company value will decrease by  $-0.137$ .

The results of the SPSS test on the second hypothesis can be concluded that liquidity has a negative direction on company value.

In the pharmaceutical sub-sector listed on the IDX based on descriptive statistical analysis results, the mean or average liquidity is 3.16. A good liquidity standard is 2:1 or 200% (Kasmir, 2016). It is believed that companies in this sub-sector are assessed with good liquidity. There is no doubt from external parties regarding the liquidity capacity of the pharmaceutical sub-sector.

The results of this study are in line with the results of research conducted by Husna et al. (2019) and Lumentut et al. (2019) which concluded that liquidity calculated by the Current Ratio (CR) does not affect company value.

### 3. Effect of Capital Structure in Moderating Effect of Profitability (NPM) on Company Value (PBV)

The moderated regression analysis (MRA) test results prove that the capital structure

cannot significantly strengthen the influence of Profitability on company value. It can be concluded that in the pharmaceutical sub-sector, the capital structure cannot be used as a moderating variable for Profitability in its influence on company value. This is because when the company has a high level of Profitability, it will reduce its dependence on capital from outside parties. After all, the company will use internal funding or retained earnings for its operational activities.

#### **4. Effect of Capital Structure in Moderating Effect of Liquidity (CR) on Company Value (PBV)**

The results of the moderated regression analysis (MRA) test prove that the capital structure cannot moderate the effect of liquidity on company value. The results of this study are not in line with the results of Sulistiowati's research (2020), which concludes that the capital structure acts as a pure moderator in the influence of liquidity on company value (Sulistiowati, 2020).

### **CONCLUSION**

Profitability calculated by net profit margin significantly affects the company value calculated by Price to book value. Liquidity calculated by the Current Ratio has no significant effect on the company value calculated by Price to book value. Capital structure calculated by debt to equity ratio cannot moderate the effect of Profitability calculated by net profit margin on the company value calculated by Price to book value. Capital structure calculated by debt to equity ratio cannot moderate the effect of Profitability calculated by current Ratio on the company value calculated by Price to book value.

### **Research limitations**

One company has just been listed on the IDX from 2018, so it becomes a deduction from the sample used. This study uses two independent variables and one moderating variable with two regression models that have adjusted R square values of 52.4% and 52%, respectively. The independent and moderating variables used in this study were only able to explain the influence of 52.4% and 52% on the dependent variable. In contrast, the rest was explained by other variables not examined in this study.

### **Suggestions**

For the company, the company should pay more attention to the factors that affect the company's value, such as Profitability and maintaining the stability of the profits obtained, to convince investors about the company's prospects and performance.

For investors, before deciding which companies are believed to be worthy of investment, investors need to pay attention to several things, such as Profitability, which can describe the company's financial condition.

For further researchers, it is better to add the research sector considering that companies' Profitability, liquidity, and capital structure have different conditions so that it is possible to produce different research results. In addition, it is recommended to add several research variables that can more strongly influence the company's value.

### **REFERENCES**

- Aggarwal, Divya, & Padhan, Purna Chandra. (2017). Impact of capital structure on firm value: evidence from Indian Hospitality Industry. *Theoretical Economics Letters*, 7(4), 982–1000. [Google Scholar](#)
- Anggraini, Reni Dwi. (2017). *Pengaruh profitabilitas terhadap nilai perusahaan dengan struktur modal sebagai variabel moderasi: Studi kasus pada perusahaan yang terdaftar di Jakarta Islamic Index periode 2012-2016*. Universitas Islam Negeri Maulana Malik Ibrahim. [Google Scholar](#)
- Aslindar, Dwi Astarani, & Lestari, Utami Puji. (2020). Pengaruh profitabilitas, likuiditas dan peluang pertumbuhan terhadap nilai perusahaan dengan struktur modal sebagai variabel intervening. *Dinamika Akuntansi Keuangan Dan Perbankan*, 9(1), 91–106. [Google Scholar](#)
- Cahyono, Sigit, Surasni, Ni Ketut, & Hermanto, Hermanto. (2019). Pengaruh profitabilitas terhadap nilai perusahaan dengan struktur modal sebagai variabel pemoderasi pada perusahaan sektor pertanian yang terdaftar di Bursa Efek Indonesia. *JMM Unram-Master Of Management Journal*, 8(4), 323–337. [Google Scholar](#)
- Ghozali, Imam. (2016). *Aplikasi Analisis multivariete dengan program IBM SPSS 23 (Edisi 8). Cetakan Ke VIII. Semarang: Badan Penerbit*



- Universitas Diponegoro*, 96. [Google Scholar](#)
- Ghozali, Imam. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. [Google Scholar](#)
- Harahap, I., Septiani, Ivana, & Endri, Endri. (2020). Effect of financial performance on firms' value of cable companies in Indonesia. *Accounting*, 6(6), 1103–1110. [Google Scholar](#)
- Hardiyanto, Arif Dwi. (2020). *Pengaruh Current Ratio, Net Profit Margin, Debt To Equity Ratio, dan Earning Per Share Terhadap Nilai Perusahaan (Studi Kasus Perusahaan Otomotif dan Komponen yang Terdaftar di Bursa Efek Indonesia Periode 2015-2018)*. Universitas Muhammadiyah Surakarta. [Google Scholar](#)
- Husna, Asmaul, & Satria, Ibnu. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50. [Google Scholar](#)
- Kasmir, S. (2016). Analisis Laporan Keuangan, cetakan ke-7. Jakarta: PT Raja Grafindo Persada. [Google Scholar](#)
- Kurnianto, Arif. (2017). *Analisis Pengaruh Kinerja Keuangan Dan Corporate Social Responsibility Terhadap Nilai Perusahaan (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia)*. Universitas Muhammadiyah Surakarta. [Google Scholar](#)
- Kusna, Irfatun, & Setijani, Erna. (2018). Analisis pengaruh kinerja keuangan, growth opportunity dan ukuran perusahaan terhadap struktur modal dan nilai perusahaan. *Jurnal Manajemen Dan Kewirausahaan*, 6(1), 93–102. [Google Scholar](#)
- Munthe, Inge, L. S. (2018). Pengaruh Profitabilitas terhadap Nilai Perusahaan dengan Struktur Modal sebagai Variabel Moderasi. *Jurnal Ilmiah Akuntansi Dan Finansial Indonesia*, 1(2). [Google Scholar](#)
- Purnomo, E. (2018). Pengaruh Profitabilitas dan Leverage terhadap Nilai Perusahaan dengan Struktur Modal sebagai Variabel Intervening. *Jurnal Ekobis Dewantara*, 1(12), 78–97. [Google Scholar](#)
- Ross, Stephen A. (1977). The determination of financial structure: the incentive-signalling approach. *The Bell Journal of Economics*, 23–40. [Google Scholar](#)
- Santoso, Andrew. (2018). Pengaruh profitabilitas, ukuran perusahaan dan tingkat pertumbuhan terhadap nilai perusahaan manufaktur di Indonesia dengan struktur modal sebagai variabel moderating. *Petra Business and Management Review*, 4(1). [Google Scholar](#)
- Seissian, Lena A., Gharios, Robert T., & Awad, Antoine B. (2018). Structural and market-related factors impacting profitability: A cross sectional study of listed companies. *Arab Economic and Business Journal*, 13(2), 125–133. [Scopus](#)
- Sulistiowati, Ulfa (2020). *Pengaruh Likuiditas dan Profitabilitas Terhadap Nilai Perusahaan dengan Struktur Modal sebagai Variabel Moderasi (Pada Perusahaan Sektor Barang Konsumsi yang Terdaftar di Bursa Efek Indonesia 2014-2018)*. Undergraduate Thesis, Universitas Stikubank.
- Tarczyński, Waldemar, Tarczyńska-Łuniewska, Małgorzata, & Majewski, Sebastian. (2020). The value of the company and its fundamental strength. *Procedia Computer Science*, 176, 2685–2694. [Scopus](#)

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