

# THE INFLUENCE OF LIQUIDITY, LEVERAGE, AND PROFITABILITY ON FIRM VALUE OF INDONESIAN PHARMACEUTICAL COMPANIES: THE MODERATING ROLE OF DIVIDEND POLICY

Yogi Pratama<sup>1</sup>, Meliza<sup>2</sup>, Anggrainy Putri<sup>3\*</sup>

<sup>1,2,3</sup> Fakultas Ekonomi dan Bisnis, Universitas Pekalongan, Pekalongan, Indonesia

\*Corresponding author: [anggrainy.putri12@gmail.com](mailto:anggrainy.putri12@gmail.com)

**Abstract.** The firm value is an indicator of the level of success of the company in terms of assessing the prosperity of shareholders. High firm value will encourage investors to invest their funds in a company. Therefore, the purpose of this study is to analyze the effect of liquidity, leverage and profitability on firm value. Moreover, this study also will examine the role of dividend policy as a moderating variable. The samples of this study are 11 pharmaceutical companies listed on the Indonesian Stock Exchange from 2019 to 2021. Multiple Linear Regression is applied in order to examine the influence of liquidity, leverage, and profitability on firm value. Furthermore, Moderated Regression Analysis (MRA) is used to identify the role of dividend policy as moderator. The results of analysis show that liquidity and leverage have a positive but not significant effect on firm value. Meanwhile, profitability has a significant positive effect on firm value. The results of the moderation analysis show that dividend policy fails to moderate the relationship between liquidity and firm value. Similar to liquidity, dividend policy is also not successful in moderating the effect of leverage on firm value. On the other hand, dividend policy can moderate the relationship between profitability and firm value.

**Keywords:** *liquidity, leverage, firm value, dividend policy*

## INTRODUCTION

Firm value describes the price that can be paid by investors. Firm value is considered as a level of success of the company in terms of shareholder prosperity. Increase in the firm value indicates that the shareholders experience prosperity. According to Hafsadillah et al., (2020) company value is defined as the market value of the shares. Hence, the greater the market value of the company's shares, the greater the value of the company and vice versa. The company must be able to maximize the value of the company in order to maximize the prosperity of shareholders.

Firm value is used as a benchmark for investors or shareholders to assess company performance. Moreover, company value is also a benchmark for a manager's performance. In fact, the welfare of shareholders is different from the satisfaction of managers, thus companies must ensure that managers remain focused on maximizing

shareholder welfare. Furthermore, many companies apply Price to Book Value (PBV) to measure the firm value. PBV is the price of a stock compared to book value. Therefore, the greater the stock price, the greater the value of the company. If the company value is high and the stock price increases, this circumstance can prosper the shareholders. Investors or shareholders will usually calculate various company ratios before buying shares such as liquidity, leverage and profitability. In addition to these ratios, investors usually also analyze dividend policy. According to (N. F. Rutin, 2019) investors assess the performance of a company from the dividend policy.

There is an influence between liquidity, leverage and profitability on firm value. These three financial ratios show changes in the company's financial condition and manage the company's assets to increase the value of the company. The firm value shows the views for investors in seeing the company

in managing its finances and resources. Increase in company's financial performance result in increase in demand of the company's shares. Furthermore, the stock price will also increase. High stock prices can increase the prosperity of investors.

According to Prabowo & Sutanto (2019), liquidity is the level of a company's ability to fulfill its short-term obligations with its current assets. High company liquidity indicates the company has low risk. Moreover, leverage is a ratio that measures a company's ability to pay off its debt

obligations by total assets. Leverage is useful for identify how assets are financed with debt (Tampubolon & Siagian, 2020). Profitability is a ratio to measure a company's ability to generate profits within a certain period (Fujianti & Satria, 2020). The value of a company is usually seen from the profitability ratio. The greater the profitability is, the greater the value of company. Dividend policy is a decision in which profits earned will be distributed to shareholders or will be retained as investment capital in the future.

**Table 1**  
**Average of CR, DER, ROA, PBV, DPR, PER and Tobin's Q of**  
**Pharmaceutical Companies listed in Indonesia Stock Exchange from 2012 to 2021**

Variabel Penelitian	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
(PBV)	3,94	4,55	4,96	3,13	3,06	2,35	2,42	1,94	2,87	2,89
(CR)	3,14	3,97	4,77	4,03	3,91	3,75	2,77	3,04	2,67	2,70
(DER)	0,94	0,34	0,31	0,35	0,37	0,74	0,97	1,21	1,44	3,65
(ROA)	12,18	12,83	14,39	14,89	15,33	10,67	9,70	10,35	9,66	11,57

Source : Indonesia Stock Exchange (IDX)

The share price is influenced by the demand for shares. Meanwhile, the demand for shares is influenced by several things including the company's profit level, debt level and dividend distribution. The table 1 shows that liquidity which is calculated by the current ratio (CR) increased about 51.9% from 3.14 in 2012 to 4.77 in 2014. However, this value has decreased to 2.70 in 2021. The debt to equity ratio (DER) as an indicator of leverage tends to decrease by 21% from 0.94 in 2012 to 0.74 in 2017. However, in 2018 the DER turn to increase to 3.65 in 2021. Furthermore, return on assets (ROA) as an indicator of profitability has increased about 25.86% from 12.18% to 15.33% in 2017. However, this value continues to decrease to 9.66% in 2020. On the other hand, the average price to book value of pharmaceutical companies in Indonesia tends to fluctuate. The highest PBV average value

was 4.96 in 2014, while the lowest PBV value was 1.94 in 2019.

Previous research related to liquidity on firm value has been carried out by several researchers. Ignatius et al., (2017) shows that liquidity has a positive effect on firm value. Meanwhile, according to Sianipar et al., (2018) and Lumentur & Mangantar (2019) liquidity has a negative effect on firm value. Research related to leverage on firm value has different research opinions. Research conducted by Putra (2020) states that leverage has a positive influence on company value. Meanwhile, research conducted by Sianipar et al., (2018) states that leverage has a negative effect on firm value. Previous studies have shown different results regarding the influence of liquidity, leverage, and profitability on firm value. In addition, there is still little research on the role of dividend policy as a moderating

variable. Therefore, this study does not only analyze the effect of liquidity, leverage and profitability on firm value but also examines the role of dividend policy as a moderating variable.

## METHODS

Multiple linear regression analysis is applied in this study. The independent variables consist of *Current Ratio* (CR), *Debt to Equity Ratio* (DER), and *Return on Assets* (ROA). Moreover, the dependent variable is price to book value (PBV). Furthermore, the moderating variable is *Dividen Payout Ratio* (DPR). This sample of this study is 11 pharmacy companies listed in Indonesia Stock Exchange (IDX) from 2012 to 2021. The data in this study derives from Indonesia Stock Exchange (IDX) website.

The sampling technique used in this study was performed with purposive sampling with the criteria (1). All of the

pharmacy company in IDX, (2). All of pharmacy company in IDX which have a complete report period 2012-2021.

## RESULTS AND DISCUSSION

Table 2 presents the result of analysis of the influence of liquidity (current ratio), leverage (debt to equity ratio), and profitability (return on assets) on price to book value. Table 2 shows that liquidity which is estimated by current ratio has positive but insignificant influence on firm value. The Value of t-statistics is about 0,475 and the significant value is about 0.637. Moreover, leverage which is calculated by debt to equity ratio also has positive effect on firm value. However, this value is insignificant. In addition, profitability which is estimated by return on assets has positive and significant value on firm value. The t-statistics value is about 3.31 and the significant value is about 0.002.

**Table 2. Result of t-Test Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,295	,585		2,215	,030
	Current Ratio	,069	,145	,059	,475	,637
	Debt to Equity Ratio	,070	,091	,088	,768	,446
	Return on Assets	,125	,038	,413	3,314	,002

a. Dependent Variable: Price to Book Value

Source: Author Calculation

Table 3 below shows the result of moderated regression analysis. Table 3 shows that dividend policy unsuccessful to moderate the relationship between liquidity which is calculated by current ratio and price to book value as firm value estimator. Moreover, dividend policy also fails to

moderate the relationship between leverage and firm value. On the other hand, dividend policy successful to moderate the relationship between profitability and firm value. The t-statistics value is about -2.8 and the significant value is about 0.007.

**Table3. Moderated Regression Analysis**  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,943	,730		1,292	,201
	Current Ratio	-,430	,426	-,368	-1,010	,317
	Debt to Equity Ratio	,484	,608	,609	,795	,430
	Return on Assets	,321	,058	1,064	5,491	,000
	X1M	,005	,005	,491	1,046	,300
	X2M	-,010	,014	-,526	-,695	,490
	X3M	-,002	,001	-,961	-2,800	,007

Dependent Variable: Price to Book Value

Source: Author Calculation

## DISCUSSIONS

### 1. The Influence of Liquidity on Firm Value

Theoretically, liquidity is a ratio that reflects a company's ability to meet short-term obligations. The higher the liquidity, the lower the company's risk in fulfilling its short-term obligations. Based on the results of research conducted that liquidity has a positive but not significant effect on firm value. The results of the analysis show that an increase or decrease in liquidity has no impact on firm value.

The decreasing in liquidity may affect the value of the company. The decline in the value of the company generates an unfavorable signal for investors to increase demand for shares. This result could occur due to decrease in current ratio from 2015 to 2018. This circumstance occurred due to companies entering and leaving the stock exchange. The results of this study are in line with research (Putra, 2020) which states that the Current ratio has an insignificant positive effect on the Price to Book value.

### 2. The Influence of Leverage on Firm Value

The tradeoff theory states that benefits and sacrifices will arise from debt. The high leverage of a company can be used to obtain higher profits by using

sources of capital from debt or assets financed using debt. This can make the company run its business optimally so that the profit earned by the company will increase. However, the amount of debt did not affect the stock price and company value. This result occurred because from 2018 to 2019 the debt to equity ratio (DER) did not experience significant changes which might be due to the Covid-19 pandemic. These results are in line with the research of Sondakh et al., (2019) which states that leverage has a positive and insignificant effect on firm value.

### 3. The Influence of Profitability on Firm Value

The results of the regression analysis show that profitability has a positive and significant effect on firm value. High profitability can have a positive impact on company value. Increased profitability is a good signal to attract investors so that the demand for shares will increase. The results of this study are consistent with research conducted by Simamora et al., (2020) which states that profitability has a significant positive effect on firm value.

### 4. The Role of Dividend Policy as Moderating Variable of The Relationship between Liquidity and Firm Value

The results of the analysis show that dividend policy cannot moderate liquidity. This shows that dividend policy cannot increase firm value when liquidity is high and dividend policy cannot reduce firm value when liquidity is low. In other words, the higher or lower dividend policy does not affect the relationship between liquidity and firm value. The payment of cash dividends causes the company to issue large amounts of cash. This can be a bad signal for investors because they think that the company will not issue large amounts of cash. The research results are in line with research conducted by Hafsadillah et al., (2020) which states that dividend policy cannot moderate liquidity on firm value.

#### **5. The Role of Dividend Policy as Moderating Variable of The Relationship between Leverage and Firm Value**

The results of the analysis presented that dividend policy cannot moderate leverage on firm value. High or low dividends paid to shareholders are not related to the high or low value of the company. This can be a signal for investors to determine investments in the future. The results of this study are in line with research conducted by R. Rutin et al., (2019) which states that dividend policy does not moderate leverage on firm value.

#### **6. The Role of Dividend Policy as Moderating Variable of The Relationship between Profitability and Firm Value**

The results of the analysis prove that dividend policy can moderate profitability on firm value. Profitability can be a factor that companies consider in giving dividends. Great profitability illustrates the better the company's performance. This is a good signal and a reference for investors to invest in the company. The results of research that are in line are

research conducted by R. Rutin et al., (2019) which states that dividend policy can moderate profitability on firm value.

### **CONCLUSIONS**

Firm value is an important indicator for assessing company performance. This study aims to analyze the effect of liquidity, leverage, and profitability on firm value. In addition, the role of dividend policy as a moderator is also analyzed in this study. The results show that only profitability has a significant influence on firm value. This result is in line with the signal theory which states that firm value is a signal of firm performance. In addition, dividend policy can only moderate profitability, meaning it strengthens the relationship between profitability and firm value.

### **ACKNOWLEDGMENTS**

The authors would like to extend their gratitude to Universitas Pekalongan and the organizers of the International Conference on Social Science, Humanities, Arts (INCOSHA) which have facilitated the publication of this research.

### **REFERENCES**

- Fujianti, L., & Satria, I. (2020). Firm size, profitability, leverage as determinants of audit report lag: Evidence from Indonesia. *International Journal of Financial Research*, 11(2). <https://doi.org/10.5430/ijfr.v11n2p61>
- Hafsadillah, P., Yusralaini, Y., & Safitri, D. (2020). Peran Kebijakan Dividen Dalam Memoderasi Hubungan Rasio Keuangan Dengan Nilai Perusahaan. *CURRENT: Jurnal Kajian Akuntansi Dan Bisnis Terkini*, 1(1), 1–20. <https://doi.org/10.31258/jc.1.1.1-20>
- Ignatius, Bonar M Sinaga, dan H. S. (2017). *Pengaruh profitabilitas, struktur modal, dan likuiditas terhadap nilai perusahaan*. 3(3), 458–465.



- Lumentur, F. G., & Mangantar, M. (2019). Pengaruh Likuiditas, Profitabilitas, Solvabilitas, Dan Aktivitas Terhadap Nilai Perusahaan Mannufaktur Yang Terdaftar Di Indeks Kompas100 Periode 2012-2016. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(3), 2601–2610.
- Prabowo, R., & Sutanto, A. (2019). Analisis Pengaruh Struktur Modal, dan Likuiditas terhadap Profitabilitas pada Perusahaan Sektor Otomotif di indonesia. *Jurnal Samudra Ekonomi Dan Bisnis*, 10(1), 1–11. <https://doi.org/10.33059/jseb.v10i1.1120>
- Putra, H. S. (2020). Pengaruh Current Ratio dan Total Assets Turnover Terhadap Price to Book Value Dengan Dimediasi Oleh Return On Equity Pada Perusahaan Sub Sektor Farmasi Yang Terdaftar Di Bursa Efek Indonesia. *Maneggio: Jurnal Ilmiah Magister Manajemen*, 3(1), 92–106. <https://doi.org/10.30596/maneggio.v3i1.4856>
- Rutin, N. F. (2019). Pengaruh Kinerja Keuangan Perusahaan Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Variabel Pemoderasi. *Prosiding FRIMA (Festival Riset Ilmiah Manajemen Dan Akuntansi)*, 6(2), 27–37. <https://doi.org/10.55916/frima.v0i2.14>
- Rutin, R., Triyonowati, T., & Djawoto, D. (2019). Pengaruh Kinerja Keuangan Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Moderating. *Jurnal Riset Akuntansi & Perpajakan (JRAP)*, 6(01), 126–143. <https://doi.org/10.35838/jrap.v6i01.400>
- Sianipar, R. T., Tarigan, P., Jubi, J., & Inrawan, A. (2018). Pengaruh Likuiditas, Solvabilitas, Aktivitas Dan Profitabilitas Terhadap Nilai Perusahaan Pada Pt Astra Internasional, Tbk Yang Terdaftar Di Bursa Efek Indonesia. *SULTANIST: Jurnal Manajemen Dan Keuangan*, 3(2). <https://doi.org/10.37403/sultanist.v3i2.57>
- Simamora, F. T., Novita, H., & Cantona, Y. A. (2020). Pengaruh Likuiditas, Profitabilitas, Leverage Dan Ukuran Perusahaan Terhadap Nilai Perusahaan Aneka Industri Di Bursa Efek Indonesia. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi)*, 4(3), 566–587.
- Sondakh, P., Saeran, I., & Samadi, R. (2019). PENGARUH STRUKTUR MODAL (ROA, ROE DAN DER) TERHADAP NILAI PERUSAHAAN (PBV) PADA PERUSAHAAN SEKTOR PROPERTI YANG TERDAFTAR DI BEI (Periode 2013-2016). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(3), 3079–3088.
- Tampubolon, R. R., & Siagian, V. (2020). Pengaruh profitabilitas, solvabilitas, likuiditas dan audit tenure terhadap audit report lag dengan komite sebagai pemoderasi. *Jurnal Ekonomi Modernisasi*, 16(2), 82–95. <https://doi.org/10.21067/jem.v16i2.4954>