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ANALYSIS OF CAPITAL STRUCTURE AND PROFITABILITY OF STOCK PRICE IN MANUFACTURING COMPANIES ON THE INDONESIAN STOCK EXCHANGE

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ABSTRACT

The aims of this studies were analyze and determining the effects of Capital Structure & Profitability on stock prices in pharmaceutical companies on the IDX. In its measurement, the Capital Structure variable uses the Debt to Equity Ratio (DER) and Profitability uses Return On Assets (ROA) and Share Prices use Price Book Value (PBV) calculations. This research used quantitative technique. The research sample used was 5 companies with the 2015-2021 period (7 research periods). Determined the sample of this study is 35 samples. Based on the results of hypothesis testing, by partially the DER has a positive and significant effect on PBV. But ROA has no positive and insignificant effect on PBV. Meanwhile, simultaneously, DER and ROA have a positive and significant effect on PBV.

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1. INTRODUCTION

Each company, of course, sets a goal to be achieved in the form of obtaining a profit at each taking into account the results obtained at the end of the period which are compiled into an important financial report for interested parties. The capital markets have some important roles as a place to buy and sell the financial instrumental, such as stock, bond, mutual fund, derivative instruments and the others financial instrumental [1]. An instrument that investors are interested in is stocks. Apart from being chosen by many investors, stocks also benefit companies in terms of funding, in which funds are transferred from the owners of fund to fund collectors. The capital markets was a meeting place between companies and individuals/community or vice versa. In Indonesia, the capital market is on the IDX.

A variety of company have developed their business in Indonesia in the last 7 years (2015-2021) are now pharmaceutical companies. Pharmaceutical companies in Indonesia continued to increase, namely 132 new companies from 198 industries in 2015, then increased to 230 companies in 2019. There are 10 pharmaceuticals company listing on the IDX and 2 of them are state-owned (PT Kimia Farma Tbk and PT Indofarma Tbk).

This is due to the identification of a new disease containing a dangerous virus, namely Covid-19, which makes companies always develop their business under any circumstances. Considering that medicines (pharmaceuticals) are very much needed in terms of urgent needs, so that the need for medicines will continue to increase in line with the increase in population, this is not at all eroded by economic fluctuations in a country. The trend of the total market share of pharmaceutical companies in Indonesia continues increasing start from Rp. 65.9 trillion in 2016 to Rp. 88.36 trillion in 2019, this showing the increase demands for some medicines. This is because people's knowledge is increasing regarding the importance of maintaining health.

Table 1. Stock Prices of Pharmaceutical Companies Listed on the IDX Period 2015-2021

No.	Company Name	Period						
		2015	2016	2017	2018	2019	2020	2021
1	PT Industri Jamu dan Farmasi Sido Muncul Tbk	550	515	545	840	1.275	805	865
2	PT Kimia Farma Tbk	870	2.700	2.750	2.600	1.250	4.250	2.430
3	PT Indofarma Tbk	168	4.680	5.900	6.500	870	4.030	2.230
4	PT Kalbe Farma Tdk	1.320	1.515	1.690	1.520	1.620	1.480	1.615
5	PT Tempo Scan Pacific Tbk	1.750	1.970	1.800	1.390	1.395	1.400	1.500

According to the table above, the five pharmaceutical's company are listing on IDX (on 2015-2021) continued to fluctuate significantly up and down. PT Industri Jamu dan Farmasi Sido Muncul Tbk with a shares price that continues to rise every year for the 2015-2021 period. Then in 2015-2017 the share price of PT Kimia Farma Tbk has increased, but in 2018-2019 the share price has decreased, and fluctuated again in 2020-2021. At PT Indofarma Tbk, a drastic decline occurred in 2019, where the previous share price in 2018 occupied a price of 6,500 to 870 in 2019. At PT Kalbe Farma Tdk and PT Tempo Scan Pacific Tbk, the share price did not experience a drastic increase or decrease.

This pharmaceutical company is faced with increasing market competition. Investors are so interested in the acquisition of shares. Structural analysis of the companies capitals was use as a factor for shareholders in determining which investments bring large profits. The capitals structured shows the companies abilities to provide funding for its daily activities [2].

Debt to equity Ratio (DER) applies liabilities & equity in calculating the amount of this ratio. DER is using measured the level of debt application over the totals of equity own by a companies [3]. Profitability was the companies abilities to earn profits. If high profitability is obtained, the company can save it as retained earnings in large quantities, so that the need for debt can be minimized [4]. The problem is related to the extent to which companies perform in influencing their share prices in the capital market. If the company's performance increases, then company's value will also increase [5]. On the IDX, it is related to the performance of a companies, which of course will receive appreciation from the capital market at the form of an increasing at share prices [6].

In connection with the research that is about to be carried out, similar research has been reviewed, for example research [7] which states that the Debt to Asset Ratio (DAR) have positive significant effect on the stock price of pharmaceutical company. This can be seen, a bad DAR can mean that the company's debt can be financed with the company's assets, thus creating interest in shareholders in entrusting their capital to the company. Furthermore, research [8] states states that DER & ROE have significant effect on stock prices. However, research [9] states that Capital Structure, Profitability, and HBA have no significant effect. Meanwhile, research [5] states that DAR and Time Interest Earned Ratio (TIER) have a significant negative effect on stock prices, and ROE have a significant positive effect on stock prices in food and beverage companies in the 2014-2018 period.

Seeing the role of pharmaceutical manufacturing companies which are currently increasingly needed since the Covid-19 pandemic, the researchers determined industrial pharmaceutical companies as the object of this research [10]. Although it is realized that the affect that influences the condition of the companies are so broad in scope, that why this study only analyzes the factors of financial performance aspects (DER and ROA).

2. METHOD

This studies applies a quantitative method intended to observe the relationships between variables and the objects to be study, so that the researches has independent and dependent characteristics. The research steps include collecting and processing data, analyzing and interpreting. The data at this studies are annual reports of pharmaceutical sub-sector company listing on the IDX from 2015-2021 and processed with SPSS v25.

The populations is a very broad object area that has characteristics and will be identified in a study. From this definition, it can be concluded that the population is not only human, but also human resources and other resources that can meet needs related to simple problems. The research population is pharmaceutical company listing on the IDX as many as 12 companies. It was found that the number of population that matched the criteria for determining the sample, the research sample was found to be 5 companies with the 2015-2021 period (7 research periods). Determined the sample of this study is 35 samples.

The method in analyzing the data is to apply multiple linear analysis in measuring the extent of the influences between the DER and ROA on the stock price in pharmaceutical companies. As for the techniques in this study, namely descriptive analys, multiple linear regression, and hypothesis testing.

3. RESULT AND DISCUSSION

Obtain data from pharmaceutical sub-sector companies listed on the IDX for the 2015-2021 period. 5 companies were obtained from the 7 year period (2015-2021), so the total sample for this study was 35 samples.

Descriptive Analysis Test Results

Table 2. Descriptive Analysis Test Results

	N	Min	Max	Mean	Std. Dev
DER	35	.08	3.52	.7017	.82619
ROA	35	-.03	.23	.0877	.06886
PBV	35	-.05	9.50	2.2249	1.80778
Valid N (listwise)	35				

Based on table 2, the description of the descriptive analysis is as follows:

1. Capital structure
   The research capital structure uses the Debt to Equity Ratio (DER) as its measurement. The mean DER obtained by pharmaceutical companies for the 2015-2021 period is 0.7017. Obtain a minimum DER value of 0.08 and a maximum DER value of 3.52. While the standard deviation of DER is 0.82619.
2. Profitability
   The profitability of this study uses Return on Assets (ROA) as its measurement. The mean ROA obtained by pharmaceutical companies for the 2015-2021 period is 0.0877. The minimum ROA value is -0.03 and the maximum ROA value is 0.23. While the standard deviation of ROA is 0.06886.
3. Share Price
   The stock price of this research is proxies by Price Book Value (PBV). The mean PBV obtained by pharmaceutical companies for the 2015-2021 period is 2.2249. The minimum PBV value is -0.05 and the maximum PBV is 9.50. Meanwhile, the standard deviation of PBV is 1.80778.

Multiple Linear Regression Analysis Test Results

Table 3. Multiple Linear Regression Analysis Test Results

Model		Ustd. Coef		Std. Coef
		B	Std. Error	Beta
1	(Constant)	.452	.763	
	DER	1.214	.446	.555
	ROA	10.501	5.349	.400

Obtain the equation from the test results from the table above as follows:

$$Y = 0{,}452 + 1{,}214\ (X1) + 10{,}501\ (X2) + e$$

Information:

1. A constant a of 0.452 means that if the capital structure (DER) and profitability (ROA) do not change up and down or have a value of 0, then the stock price value (PBV) is 0.452.
2. The capital structure regression coefficient (DER) of 1.214 shows a positive direction, it is stated that capital structure (DER) has a positive relationship to stock prices (PBV), where if the capital structure (DER) increases 1% but the other variables remain the same, then the stock price (PBV) will rise to 1.214.
3. The profitability regression coefficient (ROA) of 10.501 shows a positive direction, it is stated that profitability (ROA) has a positive relationship to stock prices (PBV), where if profitability (ROA) increases by 1% but the other variables remain the same, then stock prices (PBV) will rise to 10,501.

Hypotesis Test Results
T Test Results

Table 4. T Test Result

Model		T	Sig.
1	(Constant)	.593	.557
	DER	2.722	.010
	ROA	1.963	.058

According to table 4 and t table of n = 35, namely 2.040 (df = n-k-1 = 35-4 = 31), the following is described:

1. The capital structure (DER) found a t-count value of 2,722 > t-table of 2.050 and a significance of 0.010 <0.05. In conclusion, capital structure (DER) has a positive and significant effect on stock prices (PBV).
2. Profitability (ROA) found a t-count value of 1,963 < t-table of 2.050 and a significance of 0.058 > 0.05. In conclusion, profitability (ROA) has no positive and insignificant effect on stock prices (PBV).

F Test Results

Table 5. F Test Result

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.147	2	10.574	3.761	.034[b]
	Residual	89.967	32	2.811		
	Total	111.114	34			

Obtained F-table with 5% significance, df1 = 2 (independent variable) and df2 = 32 (n-Df1 -1 = 35-2-1), then found the value of F-table 3.29. Obtained F-count 3.761 > F-table 3.29 and sig 0.034 <0.05. It can be concluded that capital structure (DER) and profitability (ROA) have a simultaneous and significant effect on stock prices (PBV).

Test Results for the Coefficient of Determination

Table 6. Coefficient of Determination Test Results

Model	R	Rsquare	Adjusted Rsquare	Std. Error
1	.436[a]	.190	.140	1.67674

The adjusted R2 value was obtained, namely 0.140 which stated that capital structure (DER) and profitability (ROA) were able to influence stock prices (PBV) by 14%, while the remaining value was affected by other variables that were not involved in this study.

Discussion

Capital Structure (DER) Has a Positive and Significant Influence on Stock Prices (PBV)

It is found that the hypothesis formulated earlier is H1, namely capital structure (DER) has an effect on share prices (PBV) is accepted, which is based on the results of t-count 2.722 > t-table 2.050 and sig 0.010 < 0.05 . In conclusion, capital structure (DER) has a positive and significant effect on stock prices (PBV).

According to Horne, capital structure is part of expenditure which is driven by the ratio of long-term debt, own shares, and capital shown on the balance sheet. Therefore, structural capital is determined by the ratio between long-term debt and the capital of a company. It can be concluded that if structural capital can maximize the value of a company or its share price, of course structural capital is the best.

In this study, the size of the capital structure used is the Debt to Equity Ratio (DER). DER is in the form of a leverage ratio that displays the proportion between total liabilities and equity. This ratio is used in determining the amount of funds offered by the lender and business owner, so that it is used in calculating the ratio of each rupiah used as own capital [11]. The higher the frequency, of course, the higher the level of error in the company and vice versa. The results of this statement are supported by research [8] which states that DER has a significant effect on stock prices. The results of the study [12] also state the same result that DER has a significant effect on stock prices (PBV).

Profitability (ROA) Has No Positive and Not Significant Effect on Stock Prices (PBV)

It is found that the hypothesis formulated earlier is H2, namely profitability (ROA) has a significant effect on stock prices (PBV) is rejected, which is based on the t-count 1.963 < t-table 2.050 and the significance is 0.058 > 0. 05. It can be concluded that profitability (ROA) has no positive and insignificant effect on stock prices (PBV).

In this study, the profitability ratio measure used is Return on Assets (ROA). Positive ROA shows that the total assets used in the company's operations are able to provide benefits. So if a company has a high ROA, of course the company has a great opportunity to grow. However, if the total assets do not represent a profit, of course the company will experience losses and slow down its growth.

The results of this statement are supported by research [13] stating that ROA has no significant effect on stock prices. The results of the study [14] also state the same result that DER has no positive and insignificant effect on stock prices (PBV).

Capital Structure (DER) and Profitability (ROA) Simultaneously Have a Positive and Significant Influence on Stock Prices (PBV)

It is found that the hypothesis formulated earlier is H3, namely capital structure (DER) and profitability (ROA) simultaneously having a positive and significant effect on stock prices (PBV) is accepted, which is based on the F-count 3.761 > F-table 3.29 and sig 0.034 <0.05. It can be concluded that capital structure (DER) and profitability (ROA) have a simultaneous and significant effect on stock prices (PBV).

Every company must strive to maintain the balance of a company's finances. In creating a relationship between choices when determining funding sources and types of investment in managing these funding sources, it is necessary to have a capital structural policy in order to increase a company's profits. Related to profitability, the higher the company, of course, can prepare to retain profits in larger amounts, so that the use of debt can be suppressed. The problem that exists is how far the company performs in influencing stock prices.

The results of this statement are supported by research [15] stating that DER and ROA simultaneously have a significant effect on stock prices. The results of the study [14] also state the same result that DER and ROA simultaneously have a significant effect on stock prices.

4. CONCLUSION

Based on the results of the analysis and elaboration that have been discussed, it is concluded that Capital structure (DER) has a positive and significant effect on stock prices (PBV). It is proven from the results of the t test, namely t-count 2,722 > t-table 2.050 and its significance is 0.010 <0.05. Profitability (ROA) has no positive and insignificant effect on stock prices (PBV). It is proven from the results of the t test, namely t-count 1,963 < t-table 2.050 and its significance is 0.058 > 0.05. Capital structure (DER) and profitability (ROA) simultaneously have a positive and significant effect on stock prices (PBV). It is proven from the results of the F test, namely F-count 3.761 > F-table 3.29 and its significance is 0.034 <0.05. The coefficient of determination which states the effect of capital structure (DER) and profitability (ROA) on stock prices (PBV) is 14% and the rest is influenced by other variables not examined in this study.

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