Effect of Funding Decisions on Firm Value with Profitability as Intervening Variables

Asrini Wahyuni¹, Syamsu Alam², Erlina Pakki³

¹ Magister Management, Economics and Business Faculty, Hasanuddin University; asrini33@gmail.com
² Faculty of Economics and Business, Hasanuddin University; syamsul.alam60@yahoo.com
³ Faculty of Economics and Business, Hasanuddin University; erlinapakki09@gmail.com

* Correspondence author: asrini33@gmail.com

Abstract
This study aims to determine the effect of funding on firm value where profitability acts as a mediator or intervening variable in manufacturing companies on the Indonesia stock exchange. Funding variables are measured using Debt to Assets Ratio (DAR) and Debt to Equity Ratio (DER). The profitability variable is measured using Return of Assets (ROA). And the value of the company itself is measured by looking at the Price to Book Value (PBV) or the market value of the company's shares against the book value (Book Value). The population in this study is the pharmaceutical sub-sector manufacturing companies listed on the IDX. The sampling method used was purposive sampling. The data source used in this study is secondary data collected using documentation techniques. This study uses descriptive quantitative statistics and panel data regression which is processed using Eviews 11 software. The results obtained in this study indicate that first, DER has a positive and significant effect on ROA. Second, DAR has a negative and significant effect on ROA. Third, DER has a positive and significant effect on ROA. Fourth, DAR has a negative and not significant effect on PBV. Fifth, ROA has a positive and significant effect on PBV. Sixth, DER has a positive and significant effect on PBV through ROA. Seventh, DAR has a negative and significant effect on PBV through ROA.

Keywords: funding decisions; company value; profitability; debt to assets ratio; debt to equity ratio

INTRODUCTION
The growth of the national pharmaceutical industry is currently experiencing a slowing growth. Although the pharmaceutical industry experienced economic growth of 15% to 20%, but in the last 3 years, this figure has declined to below 15%. This is one of the impacts caused by the implementation of the Health BPJS (economy.kompas.com 09/04/2018). Based on data obtained from IDX, it is known that the number of manufacturing companies in the pharmaceutical sector is 10 companies. These companies are publicly traded companies that will always try to increase the value of their companies amid the current slowing growth. The value of the company itself can be reflected through the market price of its shares. High stock prices will make investors become even greater interest. This is because high company value signifies a high level of prosperity for shareholders in a company. One measure that can be used to determine the value of a company is by knowing the Price to Book Value of the company. In addition, company value can also be influenced by funding decisions. Funding decisions are not careful will cause financial disruption and impact on the value of the company. According to Brigham and Houston (2011) company value is influenced by managerial actions including investment decisions, funding decisions, and dividend policies. Funding decisions in this case the increase in debt is interpreted by outsiders as the company's ability to pay obligations in the future or a low business risk, so it will be responded
positively by the market.

In the first study, conducted by Prastika (2013) showed that leverage or Debt to Equity Ratio (DER) had a positive and significant effect on company profitability. The second study was a study conducted by Rita (2018) which showed that the capital structure measured by DER had a positive and significant effect on the value of the company measured by Price to Book Value (PBV). It also had been amplified by Tondok, Pahlevi, & Aswan (2019). The third study is a study conducted by Sitepu, Situmorang, Siregar, Habeahan & Bakara (2019) which shows that Debt to Assets Ratio (DAR) has a partially insignificant effect on firm value. However, there are differences between the third and fourth studies conducted by Made and Agung (2016). In that study, it was shown that DAR has a positive effect on firm value. In the fifth study, Astutingrum (2017) states that profitability can mediate leverage against firm value so that leverage (DER) has a positive and significant effect on firm value through profitability as an intervening variable. It is also echoed by Putra, Ali & Aswan (2019) that found the profitability affect the value of companies listed in Indonesia Stock Exchange during 2014 – 2016.

Based on previous studies, researchers chose to conduct research "the effect of funding decisions on firm value with profitability as an intervening variable ". Where this research focuses on manufacturing companies engaged in the pharmaceutical sector which are listed on the Indonesia Stock Exchange in the period 2013 to 2018.

LITERATURE REVIEW

Funding Decision

Funding decisions are financial decisions handled by management to funds or to buy assets. This decision is often linked to as capital structure policy, since each of financial decision could be funded from either internal or external source of funds. Capital structure is a combination of debt (liability) and equity used for company operations. There are 2 (two) capital structure components, namely debt capital and equity capital.

Debt to Equity Ratio

This ratio shows the relationship between the amount of debt provided by creditors and the amount of own capital provided by the company owner. Joel G. Siegel and Jae K. Shim (1999) say debt to equity ratio as a measure used in analyzing financial statements to show the amount of collateral available to creditors. Investors are not only profit oriented, but take into account the level of risk that is owned by the company if the investor decides to invest the capital he has in the company.

Debt to Asset Ratio (DAR)

Debt to Assets Ratio (DAR) is one of the ratios used to measure the level of solvency of a company. The level of corporate solvency is the company's ability to pay the company's long-term obligations. A company is said to be solvable if the company has sufficient assets and assets to pay off its debts. This ratio shows the amount of total debt to the total assets owned by the company. This ratio is the percentage of funds provided by creditors for the company.

Company Value

According to Harmono (2009: 233), the value of the company is the company's performance which is reflected by the share price formed by the demand and supply of the capital market that reflects the public's assessment of the company's performance. High stock prices make the value of the company also high, and increase market confidence, not only to the company's current performance but also to the company's prospects in the future.

Price to Book Value (PBV)

Price to Book Value (PBV) is a ratio that shows whether the stock price traded is overvalued (above) or undervalued (below) the book value of the stock (Fakhruddin, Hadianto, 2001).
Profitability

Profitability is the ability to make a profit is a measure in percentage used to assess the extent to which a company is able to generate profits at an acceptable level.

Return on Asset (ROA)

Return on Asset (ROA) is one measurement of performance for a company. This ratio is used widely by research to assess performance achievement that have been recorded by a company (Pamungkas, Pahlevi & Aswan, 2019; Isramiarsyh, Nohong & Aswan, 2019). According to Kasmir (2016: 201), ROA is a ratio that shows the results of the total assets used in the company. The greater the ROA, the greater the level of profits achieved by the company and also the better the company's position in terms of asset use.

Conceptual Model

This space is for description of conceptual model developed for the study. Figure is possible to be added.

![Figure 1: The Conceptual Model](image)

Notes:
- $X_1 = $Debt to Equity Ratio (DER)$
- $X_2 = $Debt to Asset Ratio (DAR)$
- $Y_1 = $Return on Asset (ROA)$
- $Y_2 = $Price to Book Value (PBV)$

MATERIALS AND METHOD

Location and Research Design

This research was conducted at pharmaceutical subsector manufacturing companies listed on the Indonesia Stock Exchange (IDX). This research uses descriptive statistics that are quantitative by using panel data regression.

Population and Samples

The population in this study is a manufacturing company engaged in the pharmaceutical sector which is listed on the Indonesia Stock Exchange. Based on data obtained from IDX, it is known that the number of manufacturing companies engaged in the pharmaceutical sector until 2018 is 10 companies. The sampling method used was purposive sampling. Of the 10 companies, 7 were chosen as the research samples.

Data Collection Method

Data collection was carried out from various sources including data recorded on the Indonesia Stock Exchange for the period 2013 - 2018, literature studies, journals, to financial reports sourced from IDX and the company itself. The financial data used in this study is the financial statement data from manufacturing companies in the pharmaceutical sector in the last 5 years starting from 2013 to 2018.
Data Analysis Method

This space to write data analysis used when conducting the study. An example of it is path analysis. This is also space to write down your equation.

\[ Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + e \] …………………………………………………(1)

\[ Y_2 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Y_1 + e \] …………………………………………………(2)

Y_1 and Y_2 denotes dependent variable and e_i is the random error component, and \( \alpha \) is a constant parameter, the parameter of \( \beta_1, \beta_2, \beta_3 \) are the regression coefficient associated with \( X_1, X_2 \), respectively.

EMPIRICAL RESULTS

Descriptive Statistics

<table>
<thead>
<tr>
<th>Table-1 Descriptive statistics of Main Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>The mean</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Std. Dev</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Source: Calculated using eviews 11

Based on Table 1 above shows the funding decision variables that are proxyed DER or \( X_1 \) have an average of 0.45 and a standard deviation of 0.34, and DAR or \( X_2 \) have an average of 0.28 and a standard deviation of 0.13. the profitability variable or \( Y_1 \) has an average of 11.46 and a standard deviation of 6.12, the company value variable or \( Y_2 \) has an average of 3.63 and a standard deviation of 2.35.

Findings of Main Variables

Simultan Test (F Test)

1. Equation Y1: Analysis results (F-Statistics) < prob (0.05) or 0.00000 <0.05 so that it can be concluded that DER and DAR together influence ROA
2. Equation Y2: The results of the analysis (F-Statistics) < prob (0.05) or 0.00000 <0.05 so that it can be concluded that the DER, DAR and ROA variables jointly affect the company's value variable measured by PBV

Equation Y1

<table>
<thead>
<tr>
<th>Table-2 Equation Panel Data Regression Analysis Y1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>X1</td>
</tr>
<tr>
<td>X2</td>
</tr>
</tbody>
</table>

Weighted Statistics

| Root MSE  | 4.029981 | R-squared | 0.748999 |
| Mean dependent var | 17.04624 | Adjusted R-squared | 0.736127 |
| SD dependent var     | 8.820123 | SE of regression | 4.182109 |
| Sum squared resid    | 682.1114 | F-statistics | 58.18890 |
| Durbin-Watson stat   | 0.321097 | Prob (F-statistic) | 0.000000 |

Source: Calculated using eviews 11

Based on Table 2 it can be concluded that the model used is valid because Prob (F-Statistic)
<prob = 0.05, i.e. 0.0000 <0.05. The model is appropriate to be used as a predictor because it contributes 74.89% in influencing the response variable, while 25.11% is influenced by factors outside the model used.

**Y2 equation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-2.932126</td>
<td>1.005976</td>
<td>-2.914709</td>
<td>0.0059</td>
</tr>
<tr>
<td>X1</td>
<td>4.186117</td>
<td>0.869119</td>
<td>4.816506</td>
<td>0.0000</td>
</tr>
<tr>
<td>X2</td>
<td>-0.494730</td>
<td>2.837104</td>
<td>-0.174379</td>
<td>0.8625</td>
</tr>
<tr>
<td>Y1</td>
<td>0.396793</td>
<td>0.031255</td>
<td>12.69549</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Based on Table 3 it can be concluded that the model used is valid because Prob (F-Statistic) <prob = 0.05, which is 0.0000 <0.05. The model is appropriate to be used as a predictor because it contributes 81.61% in influencing the response variable, while 18.39% is influenced by factors outside the model used.

**Partial Test (T Test)**

**Model Equation Y1**

1. Probability value of T is calculated from the independent variable X1 0.0009 <0.05, which means that the funding variable which has a proxy of DER (X1) has a significant effect on profitability which is measured by ROA.
2. The profitability value of T is calculated from the independent variable X2 0.0000 <0.05, which means that the funding variable which is proxy for DAR (X2) has a significant effect on the profitability which is measured by ROA.

**Model Equation Y2**

1. The probability value of t is calculated from the independent variable X1 0.0000 <0.05, which means that the funding variable which is proxy for DER (X1) has a significant effect on the value of the company which is proxy for PBV.
2. The profitability value of t is calculated from the independent variable X2 0.8625> 0.05, which means that the funding variable which is proxy for DAR (X2) does not have a significant effect on the value of the company proxy for PBV.
3. The profitability value of t is calculated from the free variable Y1 0.0000> 0.05, which means that the profitability of the measured by the ROA significantly influence the value of a company proxy PBV.

**DISCUSSION**

The results of the study showed that DER had a positive and significant effect on profitability measured by ROA. The results of this study support research conducted by Prastika (2013) showing that leverage or DER has a significant positive effect on company profitability.

The results showed that the DAR had a negative and significant effect on profitability measured by ROA. If the DAR is higher, the profitability measured by ROA will be lower, and vice versa.
The results showed that the DER had a positive and significant effect on the value of the company proxy for PBV. This is in line with the research put forward by Rita (2018) which proves that the capital structure measured by DER has a positive and significant effect on the value of the company.

The results showed that the DAR had a negative and not significant effect on the value of the company proxy for PBV. This is in line with research proposed by Sitepu et al, (2019) which explains that DAR has a partially insignificant effect on firm value. However, the results of this study do not support the opinion of Made and Agung (2016) who say that DAR has a positive effect on company value.

The results showed that the profitability measured by ROA had a positive and significant effect on firm value. This is in line with previous research, Pratama (2016), and Rita (2018) explained that profitability has a positive and significant effect on firm value.

The results showed that the Debt to Equity Ratio (DER) had a positive and significant effect on the value of the company through profitability measured by ROA. The results of this study are in line with research put forward by Astutiningrum (2017) which states that leverage has a positive and significant effect on firm value with profitability as a mediator.

The results showed that DAR has a negative and significant effect on firm value through profitability. So it can be stated that profitability cannot function as an intervening variable or mediator in the influence of DAR on firm value.

CONCLUSION

The conclusions obtained are debt to equity ratio (DER) has a significant and positive effect on profitability. Debt to assets ratio (DAR) has a significant and negative effect on profitability. Debt to equity ratio (DER) has a significant and positive effect on firm value. Debt to assets ratio (DAR) has insignificant and negative effect on firm value. Profitability has a significant and positive effect on firm value. Debt to equity ratio (DER) has a significant and positive effect on company value through profitability. Debt to assets ratio (DAR) has a significant and negative effect on company value through profitability.

Based on the research that has been done, the researcher can draw some suggestions that can be used by companies in the pharmaceutical sector including:
1. For companies in the pharmaceutical subsector that are listed on the IDX to further increase the value of the company can be obtained by increasing company profits and managing a good source of debt funds.
2. For investors and potential investors should pay attention to the variable of funding decisions and profitability as a material consideration in decision making. This is because these variables have a positive and significant effect on the value of the company which can indicate prosperity for shareholders.
3. The results of this study can be used as reference material, and can also add or multiply variables and observations for future researchers.

REFERENCE

Astutiningrum, Dwi., (2017)., The Effect of Leverage, Company Size, and Investment Opportunity Set (IOS) on Firm Value with Profitability as Intervening Variables (Study of Manufacturing Companies Listed on the Indonesia Stock Exchange Period 2010-2014


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