The Effect of Liquidity and Capital Structure on Profitability with Asset Structure as a Moderating Variable (Empirical Study of Banking Companies Listed on the IDX 2015-2021)

Febby Saputra M.; Akram; Siti Aisyah Hidayati
Magister of Accounting Program, Faculty of Economics and Business, University of Mataram, Indonesia

http://dx.doi.org/10.18415/ijmmu.v10i6.4889

Abstract

The research aims to analyze liquidity (CR), and capital structure (DER) on profitability (ROA) with asset structure as a moderating variable. This research was conducted on banking company objects listed on the Indonesia Stock Exchange (IDX) from 2015-2021. The total population of companies from this study was 43 banking companies. The sampling technique used is a purposive sampling method with a total sample of 22 banking companies. Data analysis techniques were performed using Statistical Product and Service Solution (SPSS 22), and research hypothesis testing was carried out using the Moderating Regression Analysis (MRA) analysis model. Research shows the results that liquidity does not have a partial positive effect on profitability, capital structure has a partially significant negative effect on profitability.

Keywords: Liquidity; Capital Structure; Asset Structure; Profitability

Introduction

Profitability is a company's ability to generate profits relative to sales, total assets, and equity. Profitability ratios are designed to measure the efficient use of company assets. Profitability becomes so important to know the company has run its business efficiently. The efficiency of a new business can be known after comparing the profits earned with assets or capital that generate profits (Ummah & Suprapto., 2020). Profit is one measure of company performance, large profits indicate good company performance.

Measurement of profitability is a very important metric in measuring the success of a company's operation because it describes the company's ability to generate profits. So that shareholders can enjoy it. The measure of profitability used in banking is the return on assets which is the ratio between net income and total assets (Watung et al., 2016).

The factors that affect profitability are liquidity, capital structure, and asset structure (Herawati & Rinofah., 2019). The selection of variables is based on the inconsistent effect that occurs on the variable liquidity, capital structure on profitability with asset structure as a moderating variable in banking which has an inconsistent effect on ROA and the presence of research gaps, this statement is supported by Astita...

The research results were corroborated by Novita & Sofie (2015), Talib (2016), Prabowo & Sutanto (2019), which has result that capital structure has a partial positive effect on profitability, in contrast to research Astita & Kalam. (2013), Tamba et al. (2017), and Rahmawati & Mahfudz (2018) which have the result of capital structure hurting profitability.

Based on research conducted by Mudijjah & Hikmanto (2018), Meiriasari et al. (2021) asset structure does not affect profitability, in contrast to Rahmawati & Mahfudz's research (2018) asset structure has no partial effect on profitability. Caused by factors that differ like each research object that is carried out, so that the results are not the same between one study and another, this is the basis for selecting asset structure as a moderating variable.

Asset structure is very necessary to determine financial allocation decisions because the company's fixed assets can be used as collateral for creditors when taking loans, this ratio measures the company's efficiency in using assets (Rahmawati & Mahfudz, 2018). Asset structure is an important variable for determining financial decisions because fixed assets owned by a company can be used as collateral for creditors when borrowing (Rahmawati & Mahfudz, 2018)

There are research gaps or contradictions with previous studies which show different results such as Astita & Kalam's (2013), Novita & Sofia (2015), Mudijjah & Hikmanto (2018), Rahmawati & Mahfudz (2018), Prabowo & Sutanto (2019) Liquidity and capital structure affect profitability, there are research gaps or contradictions with the research of Saputra (2019), Liquidity does not affect profitability. Mudijjah & Hikmanto (2018), Meiriasari et al. (2021) asset structure has no partial effect on profitability, there is a research gap with Rahmawati & Mahfudz's research (2018) asset structure affects profitability.

Based on the existence of a research gap in the previous research described above, the researcher is interested in research to analyze the Effect of Liquidity and Capital Structure on Profitability with Asset Structure as a Moderating Variable in Banking Companies Listed on the Indonesia Stock Exchange 2015-2021.

**Literature Review**

**Agency Theory**

According to Jansen and Mc Keling (1976), agency theory is a contract in which one or several people (employer or principal) employ another person (agent) to carry out several services delegating authority to make decisions to the agency. In the work of financial management, agency relationships exist between shareholders and managers and between shareholders and creditors. Managers of decisions that occur contradict the company's goal to maximize shareholder wealth. In this case, the manager's decision-makers are assisted by employees. Decisions to expand. Businesses may be driven by managers' desire to grow their divisions to gain greater responsibility and compensation.

**Signaling Theory**

Signal theory explains that information (news) submitted by companies can be classified into two, namely good news and bad news (Su et al. 2014). The signal theory is also used to describe behavior between parties related to the presence of information even though they have different access to
The Effect of Liquidity and Capital Structure on Profitability with Asset Structure as a Moderating Variable (Empirical Study of Banking Companies Listed on the IDX 2015-2021)

The signal is also informed by the board of directors when deciding to increase the company's shareholding. Management tries to communicate to the market that the diversification strategy undertaken is in the best interests of prospective company owners (Goranova, Alessandri, Brandes, & Dharwadkar, 2007). In addition, principals are also interested in signals in terms of dividend distribution or company profit sharing (Setiawanta & Hakim, 2019).

The link between signal theory and this research is that high profitability indicates a good company condition so that investors will see the positive signal response and present accurate information to users of financial statement information. This is understandable because the company has good results, so it can create a positive atmosphere among investors and increase the company's share price, increasing the price in the market.

**Trade-off Theory**

This Trade-Off Theory is known as the Balance Theory. The trade-off theory balances the benefits and costs of using debt. While profits are higher, the debt ratio can be increased. Based on this theory, companies try to maintain a concentrated capital structure to maximize market value. Husnan (2005) said that in general it can be concluded that the balanced theory follows a model of balance between the use of high-interest loan funds and bankruptcy costs. The trade-off theory explains that an increase in the ratio of debt to capital structure increases the total value of the company multiplied by the amount of debt at the tax rate. The wider the available funding sources, the more potential funds you have, and the more likely profitable investment opportunities will be used. (Gunawan, 2011).

The relationship between the trade-off theory and this research on capital structure balances the benefits and costs of using debt. As long as the profit is greater than the sacrifice made, additional debt is still allowed. Conversely, if the sacrifice due to the use of debt is greater, then the addition of debt is not allowed.

**Profitability**

Profitability is the final result of several guidelines and corporate decisions Brigham and Houston (2006). Profitability can provide a useful picture for evaluating the efficiency of a company's operations, where profitability ratios show the combined effect of liquidity, asset management, and debt on business performance. Profitability shows the balance of income and the company's ability to generate profits at various levels of operation so this ratio reflects the efficiency and success of all management (Wartini, 2013).

The profitability ratio measures the efficiency of a company's management, which is indicated by the return on sales and investment income. Basically, the use of profitability ratios show the level of efficiency of the company.

Factors that affect company profitability calculated by ROA are liquidity calculated by the current ratio, capital structure is measured by the debt to equity ratio, and asset structure is calculated by the ratio of fixed assets to total assets (Herawati & Rinofah, 2019).

**Liquidity**

Munawir (2010), argues that liquidity describes the company's ability to meet financial obligations must be met as soon as possible, or the company's ability to meet its financial obligations at the time of billing. The liquidity ratio describes the company's ability to pay its obligations immediately. This ratio can be calculated using working capital, i.e. current assets and current liabilities (Harahap, 2018).
Capital Structure

Demanded Mustafa (2017) The capital structure is a balance between permanent short-term debt, long-term debt, preferred stock, and common stock. The use of debt can increase profits and further increase profitability if the profit earned exceeds the interest costs of the debt. Conversely, if the profit from using debt is less than the interest costs on the debt, then the profit earned by the bank will decrease and profitability may decrease. Some key indicators can be used by banks to measure their capital structure, for example, debt ratio and debt to equity ratio (Rionita & Abundanti, 2018).

Asset Structure

Asset structure is wealth or financial resources owned by a company that is expected to provide benefits in the future (Andhika, 2016). Asset structure is a comparison of fixed assets to assets owned by the company. Asset structure describes how much the company depends on fixed assets for the company's business operations. Determining the amount to allocate to each asset, both current and fixed requires caution because it relates to the long-term goals of the business. (Rahmawati & Mahfudz, 2018)

According to Sartono (2013) Companies with large fixed assets can use large debts, this is because of the scale, large companies have easier access to financial resources than small companies. In this case, the amount of fixed assets can be used as collateral or collateral for the company's debt (Mudjijah & Hikmanto, 2018).

Conceptual Framework and Hypothesis Development

The research framework proposed for this study is based on the results of the theoretical study as described above. Researchers identified how the influence of liquidity on profitability (H1) which was previously studied by Faedatun, Astita, Bunga & Sofie, Mudjijah & Hikmanto, Rahmawati et al, which had different results, how the effect of capital structure on profitability (H2) which was previously studied by Faedatunn Riski, Astita & Kalam, Astuti et al, Bunga & Sofie, Thalib, (2016) Tamba et al, Mudjijah & Hikmanto, Rahmawati et, al, Rionita & Abundanti, Saputra M, Prabowo & Sutanto, which have different results, how the influence of liquidity with asset structure as a moderating variable on profitability (H3),

Figure 1. Conceptual Framework

H1 : Liquidity Has a Positive Effect on Profitability
H2: Capital Structure Has a Positive Effect on Profitability
H3: Asset Structure strengthens the influence of Liquidity on Profitability

H4: Asset Structure strengthens the effect of Capital Structure on Profitability

Methods

Research is currently being conducted on banking objects listed on the Indonesian Stock Exchange in 2015-2021 which consists of 43 banks. The purposive sampling technique was determined by the researcher to determine the research sample. Based on the sampling technique, there are 22 banking companies that can be used as research samples. Technique data analysis used in this study namely moderated regret analysis. Researcher using the SPSS 22 application to process data and draw conclusions.

Result

In the process of testing, test t is used to determine the effect of the independent variable partially on the dependent variable (Priyatno, 2012: 139).

Table 1. Test Results t

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>0.002</td>
<td>0.303</td>
<td>0.763</td>
</tr>
<tr>
<td>Capital Structure</td>
<td>-0.001</td>
<td>-2.689</td>
<td>0.008</td>
</tr>
</tbody>
</table>

In the Liquidity variable (X1) the value of t-count is obtained at 0.303 with a significance t of 0.763. Because the t-count is smaller than the t-table (0.303<1.655) or the significance of t is greater than 5% (0.763> 0.05), so partially the Liquidity variable (X1) has no significant effect on the Profitability variable (Y).

In the Capital Structure variable (X2) a count value of -2,689 with a significance t of 0.008. Because the t-count is bigger than the t-table (-2,689> 1,983) or the significance of t is less than 5% (0.008 <0.05), so partially the Capital Structure variable (X1) has a significant effect on the Profitability variable (Y).

Next, an interaction test was carried out with Moderated Regression Analysis (MRA). This analysis is used to determine the interaction effect between the variables Liquidity (X1), and Capital Structure (X2) on Profitability (Y) with Asset Structure (Z) as a moderating variable.

Table 2. Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Q</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>0.005</td>
<td>0.957</td>
<td>0.340</td>
</tr>
<tr>
<td>Capital Structure</td>
<td>-0.002</td>
<td>-3.947</td>
<td>0.000</td>
</tr>
<tr>
<td>X1.Z interaction</td>
<td>-0.165</td>
<td>-1.824</td>
<td>0.070</td>
</tr>
<tr>
<td>X2.Z interaction</td>
<td>0.047</td>
<td>2.977</td>
<td>0.003</td>
</tr>
</tbody>
</table>

The interaction between Liquidity and Asset Structure (X1.Z) obtained a t-count value of 1,824 with a significance t of 0.070. Because the t-count is bigger than the t-table (-1,824>1.655) with a
negative direction or t significance greater than 5% (0.070> 0.05), and the value of the variable regression coefficient Liquidity (X1) with Asset Structure (Z) of 0.165 then partially the Asset Structure variable (Z) cannot strengthen the influence Liquidity (X1) on Profitability and not significant (Y). So the third hypothesis is rejected. It can be concluded that the moderating variable (X1*Z) is a predictor-type variable because in the second equation coefficient value is significant (0.012) and b3 is not significant (0.070) in the third equation Asset structure as a predictor variable because the second equation has a significant effect on profitability.

On the interaction between Capital Structure and Asset Structure, the t-count value is obtained 2.977 with a significance t of 0.003. Because the t-count is bigger than the t-table (2.977>1.655) or the significance of t is less than 5% (0.003<0.05), and variable regression coefficient values Capital Structure (X2) with Asset Structure (Z) of 0.047 then partially variable Asset Structure (Z) can strengthen the influence Capital Structure (X2) to Profitability (Y). So the fourth hypothesis is accepted. It can be concluded that the moderating variable (X2*Z) is a Quasi Moderation type variable because in the second equation coefficient value b2 is significant (0.012) and significant (0.003) in the third equation so the Asset Structure variable is a Quasi Moderation variable because, in the second equation, it has a significant influence on Profitability.

**Discussion**

**The Effect of Liquidity on Profitability**

The test results found that the Liquidity variable had no positive or significant effect on Profitability. The results of this study are not in line with agency theory. Top management should be able to demonstrate the company's ability to pay off current debt with the company's current assets, which will have an impact on high profitability so that investors are interested in investing in banking companies listed on the Indonesia Stock Exchange for 2015-2021.

The results of this study contradict the results of research conducted by Faedatunn Riski (2012) Astita & Kalam (2013) Bunga & Sofie (2015) Mudijjah & Hikmanto (2018), stating that liquidity has a significant positive effect on profitability. The results of this study are supported by previous research, namely Mansur (2015) and Tamba et al. (2017), Martini (2018), and Saputra (2019), which found that liquidity does not affect profitability.

**The Effect of Capital Structure on Profitability**

The test results found that the Capital Structure variable has a negative and significant effect on Profitability. The results of this study are in line with the trade-off theory explaining the increase in the ratio of debt to capital structure increases the total value of the company multiplied by the amount owed at the tax rate. The better the availability of financial resources, the more funds available, and the greater the profitable investment opportunities that have been used in such a way that the profits achieved are higher (Gunawan, 2011).

The results of this study are supported by Riski (2012), Astuti et al. (2015), Bunga & Sofie (2015), Thalib (2016), Mudijjah & Hikmanto, (2018), Rionita & Abundanti (2018), Prabowo & Sutanto (2019), states that the capital structure has a significant effect on profitability.

**Asset Structure Does Not Strengthen the Effect of Liquidity on Profitability**

The test results show that the Asset Structure does not strengthen the effect of liquidity on profitability or in other words the third hypothesis is rejected. The research results are not in line with Agency Theory. Top management should predict that company liquidity will disclose more information
as material for consideration by managers in seeing the ability of the company's current asset funding decisions to be able to cover current debts of banking companies, and have an impact on increasing profitability, and investors are attracted to invest in Banking Companies on the Indonesia Stock Exchange 2015-2021. The results of this study are supported by previous research, namely Mudijjah & Hikmanto (2018) Asset structure has no significant effect on ROA.

**Asset Structure Strengthens the Effect of Capital Structure on Profitability**

The test results prove that Asset Structure strengthens the effect of capital structure on profitability or in other words the fourth hypothesis is accepted. The results of this study are in line with the trade-off theory explaining the increase in the ratio of debt to capital structure increases the total value of the company multiplied by the amount owed at the tax rate. The better the access to financial resources, the more potential funds there are, and the greater the chance to take advantage of profitable investment opportunities so that the profit or profitability obtained will be greater for the Banking Companies on the Indonesia Stock Exchange in 2015-2021.

The results of the research support that carried out by Mohamed and Al Samman (2015), Hammes (2014), Campello (2006), and Rahmawati & Mahfudz (2018) asset structure has a significant positive effect on ROA. Tariku Negasa (2016), Samiloglu & Demirgunes (2008) asset structure has a positive and insignificant effect on ROA.

**Conclusion**

Liquidity does not have a significant positive effect on Profitability. This is because they do not have the power to pay so they cannot fulfill all of their financial obligations that must be fulfilled immediately, so the company can be said to be illiquid. This means that the company is unable to pay its current obligations with liquid assets that are operationalized effectively and can generate low profitability.

Capital Structure has a significant negative effect on Profitability. This is because by using the maximum capital structure, the income earned by the bank can increase. Profitability can provide a useful clue for evaluating a company's operating efficiency, where profitability ratios show the combined effect of liquidity, asset management, and debt on business performance.

Asset structure does not strengthen the effect of liquidity on profitability. Because, top management should be able to predict that company liquidity will disclose more information as material for consideration by managers in seeing the ability to make decisions on funding the company's current assets and being able to cover current debts of banking companies and have an impact on increasing profitability, resulting in liquid rather than illiquid, and investors interested in investing in the Company.

Asset Structure Strengthens the Effect of Capital Structure on Profitability. Because managers can use debt or financing decisions, a more and more reliable signal that the company is improving, debt can be seen as having good prospects impacting profitability for future companies, and investors will catch signals on good companies.

**Research Limitations and Suggestions**

The current research uses asset structure as a moderating variable and is included in the predictor category, so that this variable affects the strength of the relationship, but does not interact with the independent variable and is not significantly related to the dependent variable. For future researchers who conduct the same research, it is recommended to add other factors that can influence profitability and
further develop by adding other variable discussions. In addition, a smaller number of years of sampling and a shorter research time span will describe even better profitability.

This research does not fully support agency theory and signaling theory because companies based on agency theory and signals obtain funding decisions on current assets and debt are not yet fully effective in generating profitability. Future researchers can use the liquidity variable as a moderating variable to see the effect of interactions with capital structure and asset structure on profitability.

The sample in the study was 22 banking companies for 7 periods. So that the resulting sample is 154 samples on 1 variable. For further research, they can use manufacturing research objects or other objects.

References


Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).