Analysis of Debt Structure and Liquidity on Company Performance with Firm Size as a Moderation Variable: Sub-Sector Food and Beverage Listed on the IDX in the Period 2018-2022

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ABSTRACT: This research aims to analyze and know the influence of Short-Term Debt, Long Term Debt, Total Debt to Assets, Total Debt to Equity, and Liquidity on Company Performance with Company Size as a moderating variable on manufacturing companies of the consumer goods industry listed in the Indonesia Stock Exchange 2018-2022 period. The population of this research is manufacturing companies in the consumer goods industry sector, which consists of 47 companies. The sampling selection is conducted using the purposive sampling method. Therefore, 38 samples are obtained. The data analysis method in this research was carried out using panel data testing and data processing using the EViews program. The results of this research showed that partially and simultaneously, Short-Term Debt (STD), Long-Term Debt (LTD), and Total Debt to Assets (TDTA) have a significant effect on Company Performance. Firm Size can moderate the impact of Short-Term Debt, Long-Term Debt, Total Debt to Asset, Total Debt to Equity, and Liquidity on Company Performance.

KEYWORDS: Company, Firm Size, Long Term Debt, Liquidity, Long Total Debt to Asset, Short Term Debt, Total Debt to Equity, Performance.

INTRODUCTION

Industrial competition is increasingly competitive, encouraging small and large companies to innovate, expand markets, and recruit quality human resources to increase company value. Strategic policies are formulated from the beginning of the establishment to achieve the vision and mission, and maximize profits. In the era of globalization, companies must continue to develop to improve performance and maintain sustainability. Financial performance reflects the effectiveness of company management, measured through capital adequacy, liquidity, and profitability (Fahmi, 2018; Mangkuneagara, 2007; Jumingan, 2006). This study focuses on the financial performance of food and beverage sub-sector companies in Indonesia during the 2018-2022. The data shows that companies experienced significant increases and decreases in performance.

Financial performance with profitability ratios is used to assess companies' ability to generate profits (Kasmir, 2018). Today's phenomenon related to the food and beverage industry shows that companies cannot utilize assets to become profitable, which is reflected in the negative ROA (return on assets) value. This can negatively impact the company, including shareholders and investors. Therefore, it is important to pay attention to several factors that are considered to affect company performance, such as capital structure.

Capital is inseparable from debt because many companies use debt as part of capital (Herdiyanto, 2015). Debt is classified into current debt (Short Term Debt) and non-current debt (Long Term Debt). Short-term debt has a lower cost than long-term debt, so companies can use it as a means of working capital to make a profit. According to research by Forte and Tavares (2019), short-term debt significantly affects company performance. Long-term debt is often used to finance investments to gain future profits (Herdiyanto, 2015). Research by Jones (2019) and Aziz & Abbas (2019) shows that long-term debt significantly affect company performance.

Capital structure can also be measured through the debt-asset ratio and debt-equity ratio. The higher the total asset debt, the greater the company's financial risk, which can reduce profitability and company performance (Ariska, 2018; Hery 2017). According to research by Novita et al. (2022), Kasenda (2020), and Primadana (2021), capital structure has a positive and significant effect on company profitability. However, research by Shaputri (2016) and Handini (2024) found that capital structure has no significant effect on the company's financial performance, while Anggreini and Rahyuda (2020) and Abu-Rub (2012) found that capital structure has...
a negative and significant effect on company profitability. Kayobi (2015) explains that the higher this ratio, the greater the company's dependence on external parties and the greater the cost of debt that must be paid by the company, which impacts profitability to pay loans.

The next factor is liquidity, one of the most important objectives of working capital management and the main task in optimizing the company's revenue and financial performance (Hery, 2017; Waswa et al., 2018). The main liquidity ratio is the current ratio. A high current ratio will affect return on assets (ROA) because of the company's ability to utilize current assets to meet its short-term obligations, making it easier for the company to increase profits. Thus, an increase in CR will be followed by an increase in ROA. Research that supports this includes Hanafi and Halim (2016), Dewingrat and Mustanda (2018), Khan and Rahman (2020), Lestari and Khafid (2021), Novita et al. (2022), and Wulandari and Sari (2022).

According to Brigham & Houston (2015), company size is a scale of the size of a company that can be classified in various ways, such as revenue size, total assets, and total equity. The larger the company's size, the more positive signal for investors or third parties to provide funding so that the company is easier to develop and expand, ultimately increasing the value of profitability. Company size has a positive effect on profitability. As a moderating variable, company size can affect financial performance by providing options for management to increase company assets, improve shareholder welfare, and influence funding decisions to optimize firm value (Nurdina et al., 2023). Research by Enalia & Mustaruddin (2021) and Mudijah et al. (2019) support this, showing that company size can moderate the relationship between capital structure and financial performance.

THEORETICAL BASE

Signaling Theory

The signal theory proposed by Spence (1973) explains that companies can send investors signals by publishing information, such as financial statements, that reflect the company's condition. Positive signals are expected to give a positive market reaction and show good company performance (Jogianto, 2000). Brigham and Houston (2019) state that good companies will proactively provide signals to reduce information asymmetry, where management has more information than investors. Accurate financial reports can reduce uncertainty and increase investor confidence in company performance.

Trade Off Theory

Trade-off theory in capital structure states that companies must balance the benefits and sacrifices of using debt. If the benefits are more significant, debt can be increased, but additional debt must be stopped if the sacrifice is more important. Modigliani and Miller highlight that debt interest can be a tax shield. This theory balances tax benefits with bankruptcy costs and agency costs. For an optimal capital structure, a company must balance the tax benefits of debt with the interest burden and bankruptcy risk to achieve optimal company value (Harjito, 2011).

Pecking Order Theory

According to Brealey and Myers (1966), the pecking order theory states that companies prefer internal funding due to information asymmetry. The companies prioritize internal funding; if needed, they issue debt first, then shares. The primary purpose of this theory is to reduce information and transaction costs and maintain control and profits for shareholders (Nugraha, 2013). Debt is preferred over equity capital because of cheaper issuance costs and to avoid a decline in stock prices (Jumono et al., 2013; Suad Husnian, 1998). Companies with high profits usually have small debt because they do not need external funds (Putra et al., 2017).

Firm Performance

Company performance reflects the overall condition of the company during a certain period, influenced by operational activities in utilizing resources. Performance is analyzed through financial statements such as statements of financial position, comprehensive income, and cash flow (Putra et al., 2015). The optimal capital structure combines debt and stock, maximizing firm value (Sihombing, 2018). Financial risk increases with a greater proportion of long-term debt due to the need for periodic interest payments and high bankruptcy risk (Herdiyanto, 2015). Debt policy can affect firm value and reduce the agency's cost of equity, but it also creates debt agency risk and future bankruptcy (William & Sanjaya, 2017). Debt also provides tax benefits through loan interest deductions (Rahayu & Sari, 2018).
Capital Structure

Capital structure compares the company's long-term funding, which affects the company's value, cost of capital, and stock price (Kholifah et al., 2019). The optimal capital structure results in financing with low cost and minimum risk. Sartono (2016) defines capital structure as the balance between short-term debt, long-term debt, preferred stock, and common stock. Types of capital structure include debt-to-asset ratio, debt-to-equity ratio, long-term debt-to-equity ratio, times interest earned ratio, and operating income to liabilities ratio.

Liquidity

In Elliot's (2014) research, liquidity refers to the company's ability to convert short-term assets into cash to meet operational needs. Katchova and Enlow (2013) and William and Sanjaya (2017) explain that liquidity measures the company's ability to pay off short-term obligations. High liquidity shows the company's strength in fulfilling obligations and increasing external parties' trust (Sudiani & Darmayanti, 2016; Kholifah et al., 2019). Companies with high liquidity tend to reduce the use of debt because they have sufficient internal funds (Dewingrat & Mustanda, 2018). A commonly used liquidity ratio is the current ratio, which compares current assets to current debt.

Firm Size

Firm size is measured through total assets, sales, and average profit. Large companies have greater responsibility for managing risks and tend to be more stable, attracting public attention and investors (Mardaningsih et al., 2021; Henry, 2017). The company's total assets can represent the size of the company, with large companies usually able to manage assets and sales well (Fajaryani & Suryani, 2018). Large companies have greater opportunities to obtain investment sources, both internal and external, which affect financial performance (Enalia & Mustaruddin, 2021).

RESEARCH METHODS

This type of research is quantitative descriptive research because it is carried out by emphasizing its analysis of numerical data to determine and analyze the factors that affect the company's value. The population is food and beverage sub-sector companies listed on the Indonesia Stock Exchange in the 2018-2022 period. The population is taken from the source site www.idx.co.id. Sampling using the Purposive Sampling Technique. Purposive sampling is a technique that requires specific considerations (Sugiyono, 2019). Thirty-eight companies became the population, and the criteria applied in taking samples are: (1) Food and beverage companies successively listed on the Indonesia Stock Exchange during the 2018-2022 period. (2) Food and beverage companies have published annual reports and financial reports (audited) for 2018-2022.

The data analysis technique uses panel data regression. Researchers utilize EViews to know how the results of the influence of the independent variable on the dependent variable, namely firm performance. After multiple regression analysis testing was carried out, the moderating variable, firm size, was regression tested using interaction tests. This test is to understand the presence or absence of the ability of a moderating variable to moderate the relationship between the independent and dependent variables.

The regression equation used is as follows:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon \]

Information:
- \( Y \): Firm Size
- \( \alpha \): Constant
- \( \beta_1 - \beta_{10} \): Regression Coefficient
- \( X_1 \): Short Term Debt
- \( X_2 \): Long Term Debt
- \( X_3 \): Total Debt to Total Asset
- \( X_4 \): Total Debt to Total Equity
- \( X_5 \): Liquidity
- \( Z \): Firm Size
- \( \varepsilon \): Standard Error
RESEARCH RESULTS

Data Description

This study's observations cover 90 samples from 2018-2022. The variables described include the mean, standard deviation, lowest value, and highest value. Calculations were carried out for each company during the study years, with the following calculation results.

<table>
<thead>
<tr>
<th>Table 1. Results of Descriptive Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Short Term Debt</td>
</tr>
<tr>
<td>Long Term Debt</td>
</tr>
<tr>
<td>Total Debt to Total Asset</td>
</tr>
<tr>
<td>Total Debt to Total Equity</td>
</tr>
<tr>
<td>Liquidity</td>
</tr>
<tr>
<td>Firm Size</td>
</tr>
<tr>
<td>Company Performance</td>
</tr>
</tbody>
</table>

Classic Assumption Test

Normality Test

The normality test results conducted with the Jarque-Bera test stated that the data were normally distributed. Here are the normality test results:

![Figure 1. Normality Test](source: Software Eviews 10 (2024))

Multicollinearity Test

The results of the multicollinearity test conducted show that there was no multicollinearity in this study. The following are the results of the multicollinearity test:

<table>
<thead>
<tr>
<th>Table 2. Multicollinearity Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>STD</td>
</tr>
<tr>
<td>LTD</td>
</tr>
</tbody>
</table>
Heteroscedasticity Test

The results of the heteroscedasticity test conducted with the Breusch Pagan showed that heteroscedasticity did not occur in this study. The following are the results of the heteroscedasticity test:

Table 3. Heteroscedasticity Test Results

<table>
<thead>
<tr>
<th>Heteroscedasticity Test: Breusch-Pagan Godfrey</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Statistic</td>
</tr>
<tr>
<td>Obs*R-Squared</td>
</tr>
</tbody>
</table>

Source: Software Eviews 10 (2024)

Autocorrelation Test

The results of the autocorrelation test conducted with the LM test showed no autocorrelation in this study. Here are the results of the autocorrelation test:

Table 4. Autocorrelation Test Results

<table>
<thead>
<tr>
<th>Breush-Godfey Serial Correlation LM Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Statistic</td>
</tr>
<tr>
<td>Obs*R-Squared</td>
</tr>
</tbody>
</table>

Source: Software Eviews 10 (2024)

Hypothesis Test

Testing the model's structure was carried out on the dependent variable using the fixed effect model. The test results are as follows:

Table 5. Hypothesis Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>10.25102</td>
<td>4.661895</td>
<td>2.198895</td>
<td>0.0313</td>
</tr>
<tr>
<td>Short Term Debt</td>
<td>-0.124722</td>
<td>0.034747</td>
<td>-3.589392</td>
<td>0.0006</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>0.166951</td>
<td>0.069668</td>
<td>2.396374</td>
<td>0.0194</td>
</tr>
<tr>
<td>Total Debt To Asset</td>
<td>-0.081108</td>
<td>0.030538</td>
<td>-2.655942</td>
<td>0.0099</td>
</tr>
<tr>
<td>Total Debt To Asset</td>
<td>0.015304</td>
<td>0.076603</td>
<td>0.199781</td>
<td>0.8423</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>0.420926</td>
<td>0.899039</td>
<td>0.468195</td>
<td>0.6412</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.627043</td>
<td>Mean dependent var</td>
<td>9.171778</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-Squared</td>
<td>0.504579</td>
<td>S.D. dependent var</td>
<td>10.29899</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>7.249062</td>
<td>Akaike info criterion</td>
<td>7.015615</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>3250.776</td>
<td>Schwarz criterion</td>
<td>7.654455</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-292.7027</td>
<td>Hannan-Quinn criter.</td>
<td>7.273233</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>5.120234</td>
<td>Durbin-Watson stat</td>
<td>2.286879</td>
<td></td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Software Eviews 10 (2024)
The Effect of Total Debt to Total Asset

Based on the research, the regression coefficient for the TDTA variable is -0.0194, which is smaller than the 0.05 significance level. This indicates that TDTA negatively and significantly affects the proper use of long-term debt to positively impact company performance, especially in increasing Return on Assets.

The Effect of Long Term Debt on Company Performance

The ratio of long-term debt to capital measures the ratio between funds provided by long-term creditors and funds from company owners. Based on the research results, the regression coefficient of the Long Term Debt variable is 0.166951 with a p-value of 0.0194, which is smaller than the significance level of 0.05, indicating that Long Term Debt has a positive and significant effect on Return on Asset (ROA). Any increase in long-term debt will increase ROA because long-term debt is used to finance investments that support company operations and generate profits in the future. If the investment financed from debt provides more income than the cost of debt, the company's profit increases, positively impacting ROA. The results of Jones (2019) research also shows long-term debt's positive and significant effect on company performance. Theoretical support includes Trade-off Theory and Signalling Theory. Trade-off Theory states that high short-term debt can negatively signal to the market about the firm's liquidity problems. Thus, this research strengthens the understanding that the use of high short-term debt can have a negative impact on company performance, especially in reducing Return on Assets.

The Effect of Short Term Debt on Company Performance

The ratio of short-term debt to capital measures the ratio between funds provided by short-term creditors and funds from company owners. Based on the research results, the regression coefficient of the Short Term Debt variable was -0.124722 with a p-value of 0.0006, which is <0.05, indicating that Short Term Debt has a negative and significant effect on Return on Asset (ROA). An increase in short-term debt reduces ROA because the company must settle its short-term debt obligations, which impacts profits and operating income. Research by Wijaya and Fikri (2019) states that short-term debt has a lower cost than long-term debt and can be used as working capital to get a profit more significant than the cost of the debt. The research by Forte and Tavares (2019) also shows short-term debt's negative and significant effect on company performance. Theoretical support includes Trade-off Theory and Signalling Theory. Trade-off Theory states that using short-term debt increases liquidity risk and bankruptcy costs, which can reduce company performance. Signalling Theory states that high short-term debt can negatively signal to the market about the firm's liquidity. Thus, this research strengthens the understanding that the use of high short-term debt can have a negative impact on company performance, especially in reducing Return on Assets.

DISCUSSION

The Effect of Short Term Debt on Company Performance

The results showed that the regression coefficient of the Short Term Debt variable was -0.124722 with a p-value of 0.0006, which is <0.05, indicating that Short Term Debt has a negative and significant effect on Return on Asset (ROA). An increase in short-term debt reduces ROA because the company must settle its short-term debt obligations, which impacts profits and operating income. Research by Wijaya and Fikri (2019) states that short-term debt has a lower cost than long-term debt and can be used as working capital to get a profit more significant than the cost of the debt. Research by Forte and Tavares (2019) also shows short-term debt's negative and significant effect on company performance. Theoretical support includes Trade-off Theory and Signalling Theory. Trade-off Theory states that using short-term debt increases liquidity risk and bankruptcy costs, which can reduce company performance. Signalling Theory states that high short-term debt can negatively signal to the market about the firm's liquidity problems. Thus, this research strengthens the understanding that the use of high short-term debt can have a negative impact on company performance, especially in reducing Return on Assets.

The Effect of Long Term Debt on Company Performance

The ratio of long-term debt to capital measures the ratio between funds provided by long-term creditors and funds from company owners. Based on the research results, the regression coefficient of the Long Term Debt variable is 0.166951 with a p-value of 0.0194, which is smaller than the significance level of 0.05, indicating that Long Term Debt has a positive and significant effect on Return on Asset (ROA). Any increase in long-term debt will increase ROA because long-term debt is used to finance investments that support company operations and generate profits in the future. If the investment financed from debt provides more income than the cost of debt, the company's profit increases, positively impacting ROA. The results of Jones (2019) research also shows a positive influence between long-term debt and company performance. The theories supporting this study's results are Trade-off Theory and Signalling Theory. Trade-off Theory states that long-term debt's tax benefits can outweigh bankruptcy costs, so long-term debt is used for productive investments that improve company performance. Meanwhile, the Signalling Theory suggests long-term debt can signal management's confidence in the company's long-term prospects. This study strengthens the understanding that the proper use of long-term debt can positively impact company performance, especially in increasing Return on Assets.

The Effect of Total Debt to Total Assets on Company Performance

The debt-to-asset ratio (TDTA) measures the ratio between total debt and total assets, indicating the extent to which a company's assets are financed by debt. Based on the research, the regression coefficient for the TDTA variable is -0.0194 with a p-value of 0.0194, which is smaller than the 0.05 significance level. This indicates that TDTA negatively and significantly affects company performance, especially in reducing Return on Assets.
Return on Asset (ROA). An increase in TDTA reduces ROA because a high ratio indicates an increase in interest expense and bankruptcy risk and reflects that asset financing comes mostly from third-party funds, raising doubts about the company's ability to pay off debt. The research results show that H3 is rejected, although the initial hypothesis stated a positive effect. An increase in TDTA reduces profitability because the increased debt burden exceeds the benefits of financial leverage. This is in line with the Trade-off Theory, which states that a high proportion of debt to assets increases the risk of bankruptcy and financial costs, thereby reducing company performance.

The Effect of Total Debt to Total Equity on Company Performance

The debt-to-capital ratio measures the proportion of debt to capital by comparing total debt to capital, indicating the debtor's creditworthiness and financial risk. Based on the research results, the regression coefficient of the Total Debt to Total Equity variable is 0.015304 with a p-value of 0.8423, which is greater than the 0.05 significance level, indicating that Total Debt to Total Equity has a positive but insignificant effect on Return on Asset (ROA). In other words, financial managers cannot increase firm value by changing the proportion of debt and equity. This study shows that changes in Total Debt to Total Equity do not affect ROA. These results are consistent with the research of Shaputri (2016), Abu-Rub (2012), Tang and Jang (2007), and Ebaid (2009), which states that Total Debt to Total Equity has no significant effect on ROA, supporting the pecking order theory suggests companies prefer to use internal capital rather than make external loans.

The Effect of Liquidity on Company Performance

The research results show that the regression coefficient of the Current Ratio variable was 0.420926 with a p-value of 0.6412, greater than the significance level of 0.05, so the Current Ratio had a positive but insignificant effect on Return on Asset (ROA). This hypothesis is rejected because although the result is positive, the effect is insignificant. This is based on the pecking order theory, which states that companies use internal funds more without utilizing them optimally, and trade-off theory, which shows the company's focus on financial stability rather than short-term performance improvement. Sarkar and Rakshit's research (2023) also shows that liquidity has no significant effect on company performance. The research results by Dewi (2016) and Khan & Rehman (2020) state that liquidity has a positive relationship with working capital efficiency and good corporate governance.

Firm Size as a Moderating Variable to Company Performance

Company size is measured based on assets, total sales, and average total assets. Companies with significant total assets have good cash flow, positive long-term prospects, and the ability to generate better profits than small companies (Putu et al., 2018). The results of the research show that company size was able to moderate the relationship between the variables Short Term Debt, Long Term Debt, Total Debt to Total Asset, Total Debt to Total Equity, and Current Ratio on Return on Asset (ROA) with a qualified significance value (<0.05). This means that the larger the company size, the more significant the influence of these variables on ROA.

Large companies show annual growth and increase in assets, positively impacting company performance. They have better control over the market and can cope with economic competition, making them less vulnerable to economic fluctuations. In addition, large companies find it easier to obtain external funds for operations and increase company value. Halim (2015) states that large companies use more foreign capital to support their operations. Research by Fathoni & Syarifudin (2021) and Enalia & Mustaruddin (2021) shows that company size can moderate and strengthen the effect of capital structure on company performance, as well as increase liquidity, which has a positive impact on company performance.

The pecking order theory states that large companies use internal resources for investment, reduce the need for external funding, and increase ROA due to lower funding costs. The signaling theory states that large companies provide strong signals to the market about their ability to fulfill their debt obligations, lower the cost of capital, and increase ROA. The trade-off theory shows that large companies can balance the benefits and costs of using debt and equity, gain tax advantages from debt, better manage bankruptcy risk, and operate efficiently, thereby increasing ROA.

REFERENCES


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"Corresponding Author Dara Maisarah Ibtia"


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