Capital Structure with Company Size as a Moderating Variable in Food and Beverage Companies on the Indonesia Stock Exchange

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ABSTRACT
The purpose of this research is to identify and analyse the relationship between business size and capital structure in the food and beverage industry in Indonesian public firms listed on the Indonesia Stock Exchange in the years 2018-2021. Three factors profitability, liquidity, and asset structure are evaluated here, with a moderating variable, namely company size. 28 food and beverage companies were sampled in this study using method of selecting samples on purpose. Two types of regression analysis, multiple and moderated, are used in this investigation. The findings of this research show that capital structure is influenced by profitability, liquidity, and asset structure, and that the impact of these factors is tempered by firm size.

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INTRODUCTION

The WHO has not removed the worldwide pandemic status of Covid-19. This will remain in effect until 2022. Likewise, various efforts have been made in Indonesia to control the co-19 pandemic. For companies worldwide in any field, the Covid-19 pandemic has had a significant impact on significantly impact all of their operational activities. Many companies have suffered losses, for example, companies in the food and beverage sector. Not only that, some companies go bankrupt. A capital structure that cannot be appropriately managed can trigger company bankruptcy (Renalya & Purwasih, 2022). The capital structure that works optimally is the company’s capital structure that combines excellent and balanced debt and personal capital. Apart from the Covid-19 pandemic, the phenomenon of globalization has also made company competition stronger. Companies must be able to create strategies to increase productivity and obtain optimal profits to survive and compete with other companies.

Policies implemented by the government, such as lockdowns, have significantly impacted the food and beverage sector. Company managers must have various strategies, especially in terms of funding sources. Companies must be good at making decisions about using only internal funds or requiring external funds to be withdrawn (Njo & Jonnardi, 2022). Internal funds come from profits known as retained earnings, while external funds come from adding equity, issuing new shares, selling debt securities (bonds), and borrowing from creditors (Mukaromah & Suwarti, 2022). According to the pecking order theory, companies utilize internal funding sources. In contrast, if they take external funding sources, they will choose those with the least cost of information asymmetry (Njo & Jonnardi, 2022). When one party has more information than the other, it is known as information asymmetry (Bramasto & Suhardianto, 2022).

Several aspects that influence the capital structure of this research are The asset structure, profitability, and liquidity. There was some wiggle room in the capital structures of food and beverage firms between 2018 and 2021. A common indicator of capital structure, the Debt to Equity Ratio (DER) averaged, in 2018, it recorded an average of 85.83% and decreased in 2019 by 83.73%. And experienced a relatively high increase in 2020 of 434.13% and fell again in 2021 at 111.30%. The company’s inability to effectively manage its finances in light of its commitments and capital needs is the root cause of these swings. A good DER has a value of 100% or below because it shows that the company’s condition can pay its debts.

LITERATURE REVIEW

Balancing Theory

Balancing Theory is a theory that tries to achieve a reasonable proportion between the advantages and disadvantages of using debt (Astuty, 2022). This theory aims to build an ideal capital structure by maximizing firm value. This balancing theory explains that the use of debt maximizes company value. Not only that, but this theory also describes the use of debt mixed with own capital. As long as debt has excellent benefits, the company will add to its debt, but if
the use of debt has exceeded the proper limit, it will not increase debt anymore (Lau, 2022).

**Pecking Order Theory**

The pecking Order Theory is a theory that states that companies will use their internal funding sources first. The Pecking Order Theory explains the level of funds companies take, starting internal capital, external finance, and external capital, each having risks (Yuniningsih et al., 2019). The Pecking Order Theory states that companies with abundant internal funding sources with high-profit levels tend to have low debt levels (Rizqi & Anwar, 2021). The pecking order theory will choose the funding level with the smallest to the most significant information asymmetry costs (Rita Njo & Jonnard, 2022).

**Capital**

Capital is the first point for companies to carry out their business activities. The amount of capital needed depends on the size of the company's business (Purwanti, 2012). Capital has two kinds, tangible and intangible. Tangible capital such as vehicles and buildings. Meanwhile, intangible capital is capital that does not have actual physical properties, such as brands or intellectual property. Capital comes from two sources, namely equity and foreign capital (Wadud & Yahya, 2020). Equity is capital sourced from profits and company owners. While those from outside, such as creditors, lend their capital to debtors.

**Capital Structure**

Capital structure is the company's capital source from external sources, namely current and non-current liabilities, and internal sources, namely personal capital or retained earnings. A company's financial manager must be able to decide on the right choice of capital and control the use of debt to create an optimal capital structure and avoid financial problems such as financial distress or bankruptcy. Financial managers must also understand what can affect the capital structure (Yuniningsih, et al., 2019). A company with an ideal capital structure is one where risk and return are balanced, providing a solid basis for the firm to carry out its operational operations (Mukaromah & Suwarti, 2022). This firm's capital structure will change every period according to the circumstances experienced by the company. The ratio of long-term external funding sources used by the firm to the total amount of money from internal funding sources is a measure of the capital structure's size (Cahyani & Nyale, 2022).

**Profitability**

Profitability is the company's ability to generate profits from its operational results. In addition, profitability can also be intended as a company's ability to earn profits to indicate how competent the company is in the eyes of investors (Riqzi and Anwar, 2021). Capital costs and risks must be managed effectively by managers so that companies can have the opportunity
to generate increased profits (Mukaromah & Suwarti, 2022). The gain will become retained earnings and the company’s internal funding source. Based on the pecking order theory, companies take less debt to fund their operations because profitability increases. After all, companies prefer to use internal funds resulting from company profits. The level of profitability can also be a measure of the company’s effectiveness because it shows the company has a high level of sales, so the company will be more confident that the profits are sufficient to cover the costs of its operational activities.

**Liquidity**

Liquidity is the company’s ability to pay off due debts. Companies use current assets such as cash, inventories, accounts receivable, and marketable securities. The company’s liquidity level shows that the company’s current assets can easily be converted into cash (Sartono, 2001: 116). Companies that can pay their current obligations on time will gain the trust of creditors, making it easier for the company to retake debt at a later date and also have the opportunity to get a more considerable amount. According to the hierarchy of financing methods, organisations with strong liquidity tend to rely on their own resources first because the company has sufficient internal funds. Hence, the debt ratio it has is lower.

**Assets Structure**

Asset Structure, or the ratio of the company's total assets to its fixed assets. The asset structure of a company displays assets that are useful to support the company’s operations. A prominent asset structure is hoped to help the company’s operational activities produce large output (Sari, et al., 2020). The company’s asset structure can be its collateral for taking on debt, so it does not rule out the possibility that even though the company has many assets, it will still take external funds, namely debt. Not only that, but the structure of the assets owned by the company also affects the amount of debt the company will receive (Cahyani & Nyale, 2022). The nominal quantity of debt will increase along with the increase in company assets. Therefore, companies will prefer to fund their operational activities with external debt sources (Nurkhasanah & Nur, 2022).

**Firm Size**

The scale of the total assets the company owns is called is referred to as company size (Renalya & Purwas 22). The size of the company determines the company’s operations, where the size of large and small companies will differ to find profit opportunities in their business, so companies with large company sizes have little chance of failure because the profit opportunities are more significant than if the company size is small (Ariawan & Solikahan, 2022). The number of company assets determines the company's size, which potential investors can later take into account to invest their capital (Yuniastri, et al., 2021). The capital structure of a firm is the framework around which its finances are organised. The magnitude of a corporation has an minimal chance of bankruptcy, so creditors will provide convenience in debt.
The profits generated by the company will become retained earnings which function as the company's internal funding. A large number of company internal funds will make the company minimize taking external funding sources. This makes the level of capital structure to be trim. Even though the company has sufficient internal funding sources, the company will still take external funding sources. The company will mix external funds from debt with internal funds from retained earnings. The results of Muthananah research, et al. (2022) state a significant adverse effect on the profitability of capital structure. The greater the profit generated by the company, the lower the level of the capital structure due to the small use of funds from external funding sources such as debt.

**H1: Profitability has a negative effect on capital structure**

The company will utilize its current assets to pay off due debts. Accuracy in paying will gain more trust in creditors it will affect future debt collection. Based on the pecking order theory, companies with high liquidity will minimize the use of debt because they prioritize using their own and external capital. The results of Nurkhasanah and Nur's research (2022) state that liquidity significantly negatively affects capital structure. High liquidity indicates a company's high current asset holdings so that it can meet its short-term debt, making the level of capital structure low due to the small use of debt.

**H2: Liquidity has a negative effect on capital structure**

Asset structure illustrates the number of assets a company owns to be used as collateral (Renalya & Purwasih, 2022). A large number of fixed assets can make it easier for companies to take on obligations and also have the opportunity to get more significant amounts. The fixed assets will later be converted into cash to meet the company's obligations if the company cannot pay these obligations. According to Yuningsih et al.'s (2019) findings, the composition of an organization's assets has a profoundly beneficial influence on
its capital structure. The stronger the asset base a firm has, the simpler it will be to secure financing from outside parties, namely capital so that if the company takes on a lot of debt, the level of capital structure will be high. **H3: Asset structure has a positive effect on capital structure**

**Firm Size Moderates the Effect of Profitability on Capital Structure**

The company's size can be calculated from the entire value of the firm's holdings. When a business grows in size, it shows its opportunity to benefit from its operational results. The high profitability, The scale of the firm, which is enormous, suggests that it has sufficient resources to carry out its operations. This indicates the firm is expanding and developing successfully. The impact of profitability on capital structure can be tempered by a firm's size, according to study by Nasar and Krisnando (2020). The capital structure of a large, profitable corporation will be lower than that of a small, profitable one. **H4: Firm size can moderate the effect of profitability on capital structure**

**Firm Size Moderates the Effect of Liquidity on Capital Structure**

Companies with having enough of cash on hand demonstrates that you have enough assets to pay off your short-term debts and fund your company's ongoing operations. When a corporation is very liquid, it means that all of its assets can be quickly and easily converted into cash. operating activities are sourced from internal funds. Large company size will require more capital. So that with high liquidity, the company will be used to obtain funding from external sources. The results of Mukaromah and Suwarti's research (2022) state that company size can moderate the effect of liquidity on capital structure. **H5: Firm size can moderate the effect of liquidity on capital structure.**

**Firm Size Moderates the Effect of Asset Structure on Capital Structure**

The bigger the company, the bigger the assets owned by the company, such as machines, buildings, etc. Not only significant asset ownership but also great needs, especially funding needs. The company's larger size will give creditors greater security and trust (Mukaromah & Suwarti, 2022). Therefore, companies will find it easier to take debt as a source of external funding, which means companies will tend to need external funds to support their operational activities. According to research by Suherman, et al., (2019), company size can moderate the effect of asset structure on capital structure. **H6: Firm size can moderate the effect of asset structure on capital structure**

**METHODOLOGY**

Quantitative research is the subject of this research. Quantitative research techniques use measurement tools to test hypotheses and study populations/samples. From the population obtained, there were 45 companies, and after passing the purposive sampling technique, the resulting samples were 28 companies. Moderating Regression Analysis (MRA) is used in this study to analyze data.

Debt of Equity (DER) is used to measure the level of capital structure (Y). Here's the DER formula:
Return On Assets (ROA) is used to calculate profitability ($X_1$). Here's the ROA formula:

$$\text{ROA} = \frac{\text{Profit after Tax}}{\text{Total Assets}} \times 100\%$$

The current Ratio (CR) is used to calculate liquidity ($X_2$). Here's the CR formula:

$$\text{CR} = \frac{\text{Current Assets}}{\text{Current liabilities}} \times 100\%$$

The Fixed Asset Ratio (FAR) proxy measures the asset structure ($X_3$). Here's the FAR formula:

$$\text{FAR} = \frac{\text{Fixed Assets}}{\text{Total Assets}} \times 100\%$$

The SIZE proxy is used as a measure of company size ($Z$). Here's the SIZE formula:

$$\text{Size} = \ln(\text{Total Assets})$$

### RESEARCH RESULT

**Moderation Regression Analysis**

Table 1. Results of Moderation Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients Regresi</th>
<th>t</th>
<th>Sig</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-23,391</td>
<td>-1,669</td>
<td>0,098</td>
<td>Significant</td>
</tr>
<tr>
<td>ROA ($X_1$)</td>
<td>-327,232</td>
<td>-7,494</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>CR ($X_2$)</td>
<td>-11,010</td>
<td>-5,070</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>FAR ($X_3$)</td>
<td>45,629</td>
<td>2,417</td>
<td>0,017</td>
<td>Significant</td>
</tr>
<tr>
<td>SIZE ($Z$)</td>
<td>1,699</td>
<td>1,712</td>
<td>0,090</td>
<td>Significant</td>
</tr>
<tr>
<td>$X_1*Z$</td>
<td>20,901</td>
<td>6,795</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>$X_2*Z$</td>
<td>-786</td>
<td>-5,090</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>$X_3*Z$</td>
<td>-2,844</td>
<td>-2,145</td>
<td>0,034</td>
<td>Significant</td>
</tr>
</tbody>
</table>

F count = 26.133 (Sig = 0.000)

$$R^2 = 0.638$$

Profitability (ROA), liquidity (CR), asset structure (FAR), and moderation (all together, 63.8% of the variation) all have a bearing on the capital structure (DER). In comparison, additional factors outside this study are 36.2%.

### DISCUSSION

**Effect of Profitability on Capital Structure**

It can be shown that profitability significantly negatively affects the capital structure of food and beverage companies listed on the IDX in 2018-2021. Since
the capital structure is capital that relies heavily on external sources like debt, it decreases as profitability rises and increases as debt and equity levels rise. According to the Pecking Order hypothesis, successful businesses are more likely to rely on their own resources for funding operations for company operations so that companies will minimize taking external funding sources from debt and result in a low level of company capital structure. Companies that describe the greater level of a capital structure owned by the company show that the company uses more external funding sources, one of which comes from debt. The large number of debt taking, companies must be able to pay attention to the balance between the advantages and disadvantages of using debt following the balancing theory, which emphasizes the mixing of external and internal funds. The results of this study are consistent with the research of Mutahanah, et al., (2020).

Effect of Liquidity on Capital Structure

For the years 2018-2021, it has been demonstrated that the liquidity of IDX-listed food and beverage firms has a profoundly detrimental effect on the capital structure of these businesses. The greater the level of liquidity, the less the company will depend on external sources of financing, causing a low level of corporate capital structure. The Pecking Order Theory states that the company will utilize its internal funding sources first, one of which is to fulfill its short-term obligations. Even though in the past it used internal funding sources, companies may still take debt; as long as taking debt has excellent benefits, it will increase the amount of debt. Therefore, companies must gain creditors' trust by paying on time when they are due. According to Pecking Order Theory, corporations prioritise using their own resources before seeking funding elsewhere. This study's findings are in line with those of Nurkhasanah and Nur (2022).

Effect of Asset Structure on Capital Structure

This research shows that the asset structure of food and beverage firms listed on the IDX has a material and favourable impact on the capital structure throughout the years 2018-2021. According to the findings of this study, companies are more likely to take funding from outside sources due to the company's high asset structure. This is because the company has more fixed assets that can be used as collateral in taking external funding sources. Even so, companies must be able to manage these external funds effectively to increase the company's production results. By increasing the output produced, the company is expected to increase profits to be used as a source of internal funds. Balancing Theory emphasizes the mixing of debt and own capital to increase firm value and minimize the cost of capital. Funding for such a thing must consider the source of these funds and how much the costs will be incurred. In a company funding, there must be external and internal funding sources; not only one of these funding may be fulfilled. The first source of external funds to be used is debt, then issuing new shares. The order is based on the high costs that will be borne. The results of this study are consistent with the research of Yuningsih, et al., (2019).
**Firm Size Moderates the Effect of Profitability on Capital Structure**

It can be shown that in the food and beverage IDX-listed firms of 2018-2021, business size can minimise the impact of profitability on the capital structure. This research shows that the link between corporate profitability and capital structure is strengthened as firm size increases. The size of a corporation may be gauged by looking at its total assets, and if the level of total assets is high, then it shows that the company has a large company size and vice versa. The big company's size makes it tend to diversify so that it has a high probability of profitability. Diversification is finding and developing products to increase sales and profitability. With an increase in sales, the level of profit generated also increases. This shows that the capital structure of the firm will also be simplified. In general, a smaller, more profitable firm will have a higher capital structure than a larger, more profitable one profitability because the company has small total assets and small opportunities for diversification. This study's results align with Nasar and Krisnando (2020).

**Firm Size Moderates the Effect of Liquidity on Capital Structure**

According to this research conducted on IDX-listed food and beverage firms for the years 2018-2021, the impact of liquidity on the capital structure is influenced by the size of the firm. Firms with ample cash on hand can easily make payments their current liabilities with the company's internal funds. And if a high company size supports this, the company will show that it can fund its operational activities with internal funding sources. This research confirms previous findings that larger firms have an adverse effect on the correlation between liquidity and capital structure. The high liquidity with the large size of the company does not rule out the possibility of increasing the proportion of external funding sources for the needs of its operational activities; it impacts the capital structure. In addition, companies will need external funding to finance short-term debt and operational activities if liquidity is low. The company's size is not too large means that the company also takes smaller external funding sources. This study's results align with the research of Mukaromah and Suwarti (2020) and Cahyani and Nyale (2022), which state that company size can moderate the influence of the liquidity relationship on capital structure.

**Firm Size Moderates the Effect of Asset Structure on Capital Structure**

This evidence suggests that, for food and beverage firms listed on the IDX between 2018 and 2021, company size moderates the impact of asset structure on capital structure. This research confirms that the strength of the correlation between asset structure and capital structure can be weakened by a firm size. The company's large size, with more current asset ownership than fixed assets, indicates that it will utilize these existing assets for its operational activities. So that this causes the company to reduce external funding sources because fixed assets function as collateral companies with an amount that is not as much as current assets. Therefore, it may affect the capital structure of the business. Large corporations typically have extensive asset bases. Taking on debt as an external funding source allows the firm to use its sizable asset base as security,
elevating the company's capital structure to a higher tier. A high debt ratio is consistent with the trade-off principle, which holds that a corporation with a strong asset structure would also have a strong capital structure. This study's findings are consistent with those of Suherman et al., (2019).

CONCLUSIONS AND RECOMMENDATIONS
Researchers found that for F&B firms trading on the Indonesia Stock Exchange, asset structure had a favourable effect on capital structure while profitability and liquidity had a negative effect. The capital structures of food and beverage firms trading on the Indonesia Stock Exchange are moderated by company size with respect to profitability, liquidity, and asset structure.

ADVANCED RESEARCH
Researchers can advise companies expected to continue considering the balance between taking and using internal and external funding sources to create an ideal capital structure. Variables or measuring instruments for further research are expected to use more recent and varied references so that research is more interesting.
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