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THE INFLUENCE OF PROFITABILITY, LIQUIDITY, AND COMPANY SIZE ON CAPITAL STRUCTURE: EVIDENCE FROM INDONESIA FOOD AND BEVERAGE COMPANIES

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ABSTRACT

In the era of globalization, the business world is experiencing rapid development which triggers intense competition between companies, so that systematic and planned financial management is needed in order to survive. Capital structure holds a significant position in ensuring financial stability and operational sustainability for a business, where the right funding policy can increase profits and investor confidence. Effective management of funds, ncompassing both internal and external sources, enables businesses to optimize prospects within a highly competitive market landscape. The purpose of this study was to determine the effect of profitability, liquidity, and company size on entities in the food and beverage subsector companies listed on the Indonesia Stock Exchange during the period 2021-2023. This study used purposive sampling approach, resulting in 96 data on food and beverage subsector companies listed on the IDX during the period 2021-2023. Data analysis wa performed using Eviews 12 software. The hypothesis testing method in this research uses multiple linear regression models. The model estimation chosen is the Fixed Effect Model to ensure the suitability of the multiple linear regression model in the data analysis used. This study measures capital structure by employing the DER as the main parameter. The result obtained from this research shows that profitability has no significantly negatively effect on capital structure. Liquidity has a significantly negatively effect on capital structure. Company size has a significant positively effect on capital structure.

Keywords: *Capital Structure, Profitability, Liquidity, Company Size*

1. INTRODUCTION

In the midst of globalization, the corporate sector is experiencing rapid development. Companies must be able to keep up with their developments and be able to compete well. In the midst of an increasingly unpredictable environment and competition, companies are expected to survive and have an advantage over other companies. For organizations to survive, systematic and planned fiscal management is required.

The ability to manage funds and assets effectively so that the company survives and excels in competition. Capital structure is an important element that significantly affects the economic stability and operational continuity of the organization, so funding policy has an impact on all business activities. Without careful planning, the company's operations can be hampered, causing financial losses and reduced investor confidence. By effectively utilizing internal and external funds, companies can maximize profits and increase opportunities for business domination. The disclosure of financial information in the financial statements affects investor perceptions and moves the company forward. An optimal capital structure not only reduces financing costs but also attracts investors with promising returns. This research seeks to investigate the factors that affect the financing structure among firms in the food and beverage subsector, recognizing that previous findings are mixed and inconclusive.

Companies in the food and beverage subsector pertain to businesses within the expanding sector of food and drink production, driven by the growth of Indonesian society. People's tendency to consume fast food encourages the emergence of new companies in this sub-sector, increasing overall business competition [4]. This segment has a significant position in the country's economy as it provides essential products to fulfill basic human needs and is considered to be more resilient during economic downturns compared to other sectors.

Previous research shows mixed results regarding the factors that influence capital structure. Valencia & Dermawan (2024) discovered that company size positively influences funding structure, while profitability negatively affects it, with both being significant [25]. Suhardjo et al. (2022) concluded that profitability and company size are not significant, whereas liquidity negatively and significantly impacts funding structure [22]. Kho & Susanti (2023) revealed that profitability and liquidity negatively and significantly influence funding structure [8]. Setiawan & Nugroho (2023) observed that company size positively and significantly affects funding structure, profitability is positively but insignificantly associated, and liquidity negatively and significantly impacts funding structure [20].

Numerous researchers worldwide conduct empirical studies on capital structures, yielding a wide range of diverse results. This analysis centers on companies within the food and beverage category, as this segment boasts large-scale production and extensive market reach, leading to elevated capital structures due to substantial financial needs for product innovation. Businesses in this category hold a crucial position in supporting the growth of Indonesia's economy and constitute a significant portion of industries with the most listings on the IDX. This study examines food and beverage companies listed on the IDX from 2021 to 2023, as they play a vital part in fulfilling Indonesia's demand for consumable goods. However, in recent years, the company's capital requirements have decreased significantly, impacting the company's profits.

Trade-Off Theory

The Trade-off Theory introduced by Myers (1984) suggests it organizations establish an ideal debt ratio through a by balancing the tax benefits gained through debt interest and expenses associated with bankruptcy and the risk of financial distress. In this theory, firms adjust debt and equity to achieve a capital structure that generates maximum value, assuming constant assets and investment planning. In this theory, firms adjust debt and equity to achieve a capital structure that generates maximum value [13].

Firms possessing secure tangible assets and substantial earnings are inclined to utilize higher levels of leverage to optimize tax shields, as their associated risks are minimal. In contrast, companies with intangible assets and high risk rely more on equity to avoid the cost of financial distress. Thus, organizations aim to achieve a well-balanced capital structure, ensuring that the benefits using debt do not exceed the financial risks borne [2].

Pecking Order Theory

Based on the perspective of Myers and Majluf (1984 as cited in Saif-Alyousfi et al., 2020), this theory explains that firms are inclined to use internal funds, such as retained earnings, before seeking external financing [18]. Companies with high liquidity avoid debt financing to reduce the risk of default, keeping the debt ratio low [22]. This theory also recognizes the importance of taxation and financial risk considerations when determining capital structure decisions.

The Pecking Order Theory suggests that executives possess superior insights compared to investors regarding the organization's future prospects. Since investors are concerned that new securities are overvalued, companies avoid issuing new shares to prevent negative signals in the market. If external funding is required, the company prefers debt over equity, because debt does not cause as much negative impact as stock issuance, making it more acceptable to investors [2].

Profitability

Profitability reflects an organization's ability to produce earnings through efficient management of assets and financial resources [20]. Elevated profitability levels signify the firm's capacity to achieve substantial earnings, so the need for debt becomes lower. Increased profitability has an impact on increasing retained earnings, aligning with the pecking order theory, where asserts that organizations prioritize internal resources, such as retained earnlngs for funding. This ultimately strengthens the own capital component within the firm's capital structure [19].

H1: Profitability negatively affects the capital structure.

Liquidity

The liquidity level within a company reflects its capacity to settle short-term obligations using liquid assets. A high liquidity ratio suggests that the firm possesses significant liquid resources,, so it can meet its funding needs without relying on debt. Based on pecking order theory, companies with sufficient internal funds for operations tend to delay taking on debt, given the lower risk associated with using internal funds compared to debt [8].

H2: Liquidity has a negatiive and significantly affects the capital structure.

Company Size

Company size is the main indicator reflecting the company's financial strength [14]. Large-scale companies generally require larger funds to support operational activities, either from internal or external sources such as debt [25]. The large scale of the company provides confidence to creditors regarding the company's ability settle its financial commitments, which affects easier access to funding. In addition, companies can also take advantage of tax incentives by considering the balance between costs and benefits obtained in order to avoid potential losses [20]. The findings of this measurement confirm that as a company's size increases, so does its capital structure [11].

H3: Company size has a significantly positively affects the capital structure

2. RESEARCH METHOD

The secondary data employed study is sourced from financial statements and annual audits available through the official website of the IDX. Data gathering was performed using Microsoft Excel, while analysis was conducted with EViews version 12 to ensure the precision and validity of the findings. After gathering the data, the process and identification of outliers were carried out so that the sample used amounted to 96 company data from the food and beverage subsector. Before conducting the multiple determination coefficient test, the model testing conducted in this study includes the chow test to identify the most suitable model between the common effect model (CEM) or the fixed effect model (FEM) in panel data regression, the Hausman test to determine the appropriate approach between the random effect model (REM) or the FEM, and if the REM is chosen, the lagrange multiplier test is conducted to choose between the CEM or the REM. Following this, tests for multiple multiple determination coefficient, F test, and t test were performed using EViews 12.

In this research, the sampling technique utilized was purposive sampling, sample were chosen based on specific criteria. Firms within the food and beverage subsector consistently registered on the IDX from 2021 to 2023 were selected. The company has IPO during 2021 to 2023. The company was not delisted during the 2021-2023 period. The company uses rupiah currency in its financial reporting, and and issued financial statements with a reporting period ending on December 31. The sample obtained was 96 data from the food and beverage subsector registered on the IDX from 2021-2023 period. Data processing using Eviews 12 software.

The operationalization of the variables in this study is summarized systematically in the following table:

Table 1. Operational Variable

Variable	Size	Source
Capital Structure (Y)	$DER = \frac{Total\ Debt}{Total\ Equity}$	Fahmi (2017)
Profitability (X_1)	$ROA = \frac{Net\ Income}{Total\ Asset}$ x 100%	Brigham et al. (2019)
Liquidity (X_2)	$Liquidity = \frac{Current\ Asset}{Current\ Liability}$	Kieso et al. (2020)
Company Size (X_3)	$Company\ Size = Ln\ (Total\ Assets)$	Hartono (2015)

3. RESULTS AND DISCUSSIONS

Below is a table showing the descriptive statistical outcomes.

Table 2. Statistic Descriptive
Source: Eviews 12, Processed (2024)

	DER	ROA	CR	CS
Mean	0.702405	0.058669	2.748374	28.72917
Median	0.751207	0.064690	1.789665	29.00000
Maximum	1.455794	0.221789	13.30906	33.00000
Minimum	0.102822	-0.399674	0.546858	25.00000
Std. Dev.	0.384574	0.084817	2.472735	1.905555

The descriptive statistics table 2 in shows that the ROA, CR, an CS variables have measured mean, median, maximum, mininum, and standard deviation values.

The normality test outcomes indicate a probability of 0.342951, suggesting that the data follows a normal distribution. With this result meeting the criteria for linear regression >0.05, it is confirmed that the residuals are normally distributed. This condition strengthens the reliability of the findings related to impact of independent variable on dependent variable in the regression analysis.

The multicollinearity test was conducted using EViews software version 12. The complete test results are shown in the table below:

Table 3. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.139982	276.2201	NA
ROA	1.104850	2.185038	1.472892
CR	0.000104	2.782861	1.237723
CS	0.000172	280.9917	1.218025

Source: Eviews 12, Processed (2024)

According to the multicollinearity test findings, multicollinearity is assessed through the Variance Inflation Factor, where the VIF for each independent variable in the model is <10.00. This finding indicates that no multicollinearity issue exists among the independent variables included.

The autocorrelation analysis was conducted using Durbin Watson (DW) with a statistical value of 0.935728 which is within the acceptable range of -2 to +2. These results indicate the absence of significant autocorrelation, which contributes to the increased reliability of the regression model and supports the precision of the conclusions.

The heteroscedasticity test was conducted using the Breusch-Pagan-Godfrey method which yielded a Prob. Chi-Square (Obs*R-squared) of 0.0826 > 0.05. Therefore, according to these results, it can be inferred that the regression model does not encounter issues with unequal variance.

Regression Model Estimation

Chow Test

The Chow test aims to determine appropriate effect model between the FEM and the REM. If the prob. cross-section chi-square <0.05, FEM is chosen and continued with the Hausman Test. The complete test results are shown in the table below:

Table. 4 Chow Test

Effects Test	*Statistic*	*d.f.*	*Prob*
Cross-section F	12.049387	(31,61)	0.0000
Cross-section Chi-square	188.485766	31	0.0000

Source: Eviews 12, Processed (2024)

The Chow test outcomes in table 4 show that the FEM is more appropriate for this research data. The cross section chi - square probability value of 0.0000 or <0.05 indicates that the model chosen is FEM.

Hausman Test

The Hausman test is performed when the FEM is selected with the aim of determining the right model between REM or FEM. The provisions in the Hausman test are if prob. cross-section F> 0.05 means H0 is accepted, meaning the selected model is a REM and will proceed with the LM test. Conversely, if prob. cross-section F < 0.05 mean H0 is rejected, and FEM is selected. The complete results are shown in the table below:

Table. 5 Hausman Test

Effects Test	*Statistic*	*d.f.*	*Prob*
Cross-section Random	30.738005	3	0.0000

Source: Eviews 12, Processed (2024)

The Hausman test presented in table 5 shows a probability value 0.0000 or <0.05, indicating that the FEM is the most suitable model for this study. Therefore, based on the findings from both the Chow test and the Hausman test, it shows that the FEM is the most suitable model for analyzing the data in this research, and as such, the LM test does not need to be done.

Partial Test (t-test)

The t test is employed to evaluate the significantly of the independent variable in explaining the dependent variable. The provisions in the t test are if the p-value> 0.05, H0 is accepted, indicating that the independent variable does not have a significantly impact on the dependent variable and vice versa.

Table 6. Partial Test (t-test)
Source: Eviews Version 12, Processed (2024)

Variables	**Coefficient**	**Probability**
(Constant)	-6.729860	0.0019
ROA	-0.202010	0.5916
CR	-0.037227	0.0050
CS	0.262675	0.0006

Multiple linear regression analysis is employed to investigate the effect two or more independent variables on the dependent variable this research [6]. The regression model presented in this study, presented in table 5 is as follows:

DER = -6.729860 - 0.202010*ROA - 0.037227*CR + 0.262675*CS + ε

In the regression model, the constant value is obtained equal to -6.729860, which indicates that if the value of independent variables is zero, then the capital structure will have a value of -6.729860. The coefficient for the ROA variable is -0.202010, suggesting that a one-unit rise in profitability, assuming other independent variables, will result in a decrease in capital structure by -0.202010. The coefficient for the CR variable is -0.037227, indicating that one unit increase in liquidity will decrease capital structure by -0.037227, assuming other variables. On the other hand, regression coefficient for CS variable is 0.262675, indicating that a one-unit increase in company size will raise the capital structure by 0.262675 and vice versa.

The F test is conducted to assess the impact of all variables in the research model on the dependent variable [6]. The F test shows the probability value <0.05, with a p-value of 0.000. This shows that independet variables significantly affect the capital structure. Therefore, this research model is considered valid for use.

The coefficient of determination (R^2) is applied to assess how well the research model can explain dependent variable [6]. The R-squared value of 0.930354 signifies that approximately 93.03% of the variation in the capital structure can be explained by the independent variables. The remaining 6.97% is attributed to other factors.

The Effect of Profitability on Capital Structure

The t-test results in table 6 indicate that the probability for variable X1 (profitability) is 0.5916, indicating the probability value > 0.05. As a result, it can be inferred that effect of profitability on capital structure is not significantly. It is found that the constant value is -0.202010 which indicates a negative influence. This condition is inconsistent with the pecking order theory, which suggests higher profitability in company usually results in a preference for using internal funds and reducing reliance on debt. This discrepancy can be caused by various factors, including low profitability that encourages companies to rely more on debt in financing. From the analysis, this is because as profitability increases, the tendency to use debt also increases, which in turn influences the overall capital structure of the company. This finding consistent with the study conducted by Anisah et al. [1] and Suhardjo et al. [22] who found profitability has a negatively and insignificantly impacts capital structure. While Valencia and Dermawan [25], Lie and Dewi [12], Panjaitan et al. [16], Nurkhasanah and Nur [15], and Suryaningsih, et al. [23] who found the opposite result, indicating that profitability significantly impacts capital structure.

The Effect of Liquidity on Capital Structure

The t-test results in table 6 reveal that the probability for variable X2 (liquidity) is 0.0050, indicating a probability value <0.05. As a result, it can be inferred the impact of liquidity on capital structure is significant. It is found that the constant value is -0.037227 which indicates a negative effect. Liquidity can be measured by current ratio, with a higher ratio making it less likely for the company uses debt. According to the pecking order theory, companies with a high current ratio are considered to fulfill short-term liabilities using their current assets. This finding aligns with studies by Suhardjo et al. [22], Kho and Susanti [8], Setiawan and Nugroho [20], Panjaitan et al. [16], Pertiwi and Susanti [17], Suryaningsih et al. [23], and Nurkhasanah and Nur [15] who found liquidity has a significantly negatively on capital structure. Meanwhile, Utama and Nugroho [24] found the opposite result, that it does not significantly on capital structure.

The Effect of Company Size on Capital Structure

The outcomes of the t-test in table 6 indicate that probability for variable X3 (company size) is 0.0006, which shows the probability value <0.05. Therefore, it can be inferred that it impact of company size on capital structure is significant. It is found that the constant value is 0.262675 which indicates a positive influence. Company size is indicat by the volume of sales or the total assets it possesses. Large-scale companies generally require larger funds to support operational activities, either from internal or external sources such as debt. These results support research conducteb by Valencia and Dermawan [25], Setiawan and Nugroho [20], and Suryaningsih et al. [23] who found that company size has a significantly positively on capital structure. While Suhardjo et al. [22] and Panjaitan et al. [16] who found the opposite result, that it has no significantly influence on capital structure.

4. CONCLUSIONS AND SUGGESTIONS

The finding of this study reveal that profitability does not exert a significantly negative on capital structure. However, liquidity has a significantly negatively on capital structure, while company size shows a significantly positively impact on capital structure. This study seeks to analyze the influence of profltability, liquidity, and company size on capital structure. The research population consisted of 93 food and beverage subsector companies regist on the IDX during the period 2021 to 2023. Sample was chosen use a purposive sampling method , leading to 55 food and beverage subsector companies that fulfilled the criteria set out in this study. From this sample, 96 company data were collected which were then analyzed using EViews 12 software for data processing. This study has a few limitation that can addressed and expanded in future studies. Firstly, the study focused exclusively on food and beverage subsector companies as its subjects. Second, the period span in the study is very short, namely 2021-2023. Third, there are sampling limitations on companies that IPO during 2021-2023; company financial reports that use rupiah as their currency; companies whose financial year end on December 31; the company presents complete financial statements during the 2021-2023 period.

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