Analysis of the Influence of Profitability, Growth Opportunity, Liquidity, and Firm Size on Capital Structure of Pt Nippon Indosari Corporindo (Tbk) for the Years 2014-2022

Siti Rosyafah[1*], Fitriyah Kusuma Devi[2], Dhuihitta Mahardhika Lakshita[3]
Universitas Bhayangkara Surabaya
Corresponding Authors : Siti Rosyafah siti@ubhara.ac.id

A R T I C L E I N F O

A B S T R A C T

The capital structure, the ratio of total debt to total assets, significantly impacts a company's financial strength. This study on PT Nippon Indosari Corporindo (Tbk) reveals important insights. Firstly, firm size, growth opportunities, liquidity, and profitability collectively influence the company's capital structure. Secondly, these factors partially impact the capital structure. Lastly, firm size, growth opportunities, liquidity, and profitability strongly shape PT Nippon Indosari Corporindo (Tbk)'s capital structure. Companies should carefully consider these factors when determining their capital structure to enhance financial stability and shareholder well-being.

INTRODUCTION

The ASEAN Economic Community (AEC) signifies a collaborative business initiative among the ASEAN member states aimed at establishing a free trade area, meaning there are no tariff barriers among its constituent nations. This free trade arrangement intensifies business competition, necessitating prudent financial management by companies to enhance their intrinsic value. Financial managers, in their pursuit of increasing firm value, underscore three pivotal decisions within the expenditure function: decisions pertaining to dividends, investments, and fund requirements. Among these decisions, investment decisions are deemed the most crucial by financial managers, given that investment choices exert a direct influence on the future cash flows of the company.

The Covid-19 pandemic has significantly impacted the economic conditions of nearly every country worldwide, Indonesia being no exception. In Indonesia, one of the business sectors that remained relatively unaffected by the pandemic is the food and beverage industry. In fact, the growth in the food and beverage business has shown an upward trend, albeit at a relatively slower pace. The reason behind the resilience of the food industry is the sustained high level of food consumption among the Indonesian populace, despite the challenging conditions imposed by the pandemic. One of the companies that has remained unscathed by the impact of the Covid-19 pandemic is PT Nippon Indosari Corporindo (Tbk).

Profitability is the capability of a company to generate income through sales, total assets, and equity. Earnings from these sources are utilized to fund ongoing operations and ensure the company's long-term viability. Studies conducted by Hamid et al. (2015), Oino et al. (2015), and Neville and Brian (2022) in Ireland, as well as Goenner and Kwan (2022) in South Korea, argue that the correlation between profitability and capital structure indicates that companies with strong profits typically rely on retained earnings to meet future capital needs. Once these requirements are satisfied through retained earnings, external debt may become unnecessary. Companies generally prioritize a profit-centric approach, considering success in profit attainment as a metric of overall success. Managers typically prefer internal financing, following the pecking order theory, but if internal resources are insufficient, external debt financing might be pursued.

LITERATURE REVIEW

Growth opportunity is defined as a company's potential for future expansion, measured by its total assets. Growth opportunities serve as a metric to project a company's prospective growth. A high potential for growth is viewed positively by internal stakeholders and investors, signaling the company's robust performance. Companies anticipated to have substantial growth often prefer using stocks to finance operations. Conversely, businesses with lower growth prospects tend to share growth risks with creditors by issuing bonds, typically in the form of long-term debt. This pattern arises from the higher flotation cost associated with issuing common stock compared to bonds. Consequently, companies with high growth potential are inclined to utilize debt compared to those with more modest growth expectations.

Liquidity represents the speed at which an entity can meet its obligations or convert assets into cash. Creditors generally have greater confidence in entities with high liquidity ratios, making it easier for such entities to secure capital loans. The level of trust creditors place in an entity with high liquidity can influence the proportion of external funds the entity holds. Research by Patel et al. (2022) suggests that a company's liquidity level impacts its capital structure. Another study by Udomsirikul et al. (2022) in Thailand proposes that companies with ample liquidity tend to have lower debt levels as they prefer utilizing their own equity.

The size of a firm is typically measured by the value of its assets. This size can have an impact on the capital structure of the firm, with larger firms tending to have higher levels of debt (Garcia et.al, 2016). Creditors also tend to prefer lending to larger firms over smaller ones. The higher level of debt in larger firms can also affect their leverage ratio, which can, in turn, reduce the risk of bankruptcy compared to smaller firms. Therefore, the size of a firm can also have an influence on its capital structure. Studies by Alabdullah and Zaraa (2023) as well as Block, et.al (2023) also suggest that the size of a firm affects its structure.

The capital structure is defined as the comparison between equity capital and long-term external capital, and it holds a pivotal role for companies by directly impacting their financial condition. In the current landscape of business competition, internal funding sources have become less appealing. Consequently, company managers are actively exploring various alternative funding sources to ensure the long-term sustainability of the company. One strategic measure employed by managers to finance the company involves raising funds from external parties through the issuance of debt. The implementation of debt financing by these managers is anticipated to bolster productivity, thereby enhancing the company's long-term value. However, an excessive reliance on debt financing can give rise to challenges if not appropriately balanced with productivity.

Consequently, it has the potential to diminish the company's overall value (Ahmad and Abdullah, 2013, and Hamid et al., 2015). In summary, the elucidation above underscores that the capital structure represents a fusion of external capital in the form of long-term debt, including bonds, mortgages, and investment credit, as well as funding from internal equity derived from the issuance of common or preferred stock and retained earnings. Block et al. (2023) and Andreas et al. (2014) posit that the Pecking Order Theory elucidates the hierarchical nature of the capital structure that managers adopt. This hierarchy is attributed to information asymmetry between management and investors.

The Pecking Order Theory postulates that managers exhibit a preference for funding from retained earnings, followed by funding from external sources in the form of debt, and finally, funding through the issuance of stock. This theory provides insight into why managers favor retained earnings over issuing new stock. The rationale lies in the signaling effect associated with issuing new stock, which implies to investors that the company is not in a favorable condition. Investors infer that there are no retained earnings available for capital funding, necessitating the issuance of new stock (Zeitun and Mohamed, 2022).

METHODOLOGY

The variables to be assessed in this research encompass independent variables, namely profitability (X_1), growth opportunity (X_2), liquidity (X_3), and firm size (X_4). The focal point of investigation is the dependent variable, identified as the capital structure (Y). Profitability is defined as the company's ability to generate earnings through its business activities. Elevated profitability indicates the company's effectiveness in generating substantial profits. Profitability typically provides financial managers with valuable insights into asset management, specifically in terms of profit generation for the company. In the context of this study, the return on assets (ROA) ratio is utilized to calculate profitability, employing the following equation:

$$ROA = \frac{Nett\ aftet\ tax}{Total\ assets}$$

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$$Growth\ Opportunity = \frac{total\ assets_n - total\ assets_{n-1}}{total\ assets_{n-1}}$$

$$Current\ Rasio = \frac{Liquid\ asset}{Current\ asset}$$

Meanwhile, Liquidity is defined as the ability of a company to obtain cash to pay its obligations or debts to its creditors. Liquidity is also defined as the ability of a company to sell its assets in a short period of time to be converted into cash that will be used to pay its obligations. Liquidity in this study is calculated using the following formula:

The size of a firm, or company size, will affect the capital structure that the company will use. Larger companies tend to use more debt compared to smaller companies. Creditors investing their funds will tend to choose larger companies because investors trust that investing in a larger company is more profitable than investing in a smaller company. This study calculates firm size using the logarithm formula of the total assets owned by the company. The formula used is as follows:

$$Firm\ Size = Ln\ Total\ Assets$$

Capital structure is defined as the comparison between a company's debt and equity. This study uses the debt to equity ratio (DER), which is used to assess how much debt is being used in relation to the company's equity. A DER ratio of one

means the company has more debt than equity, indicating a high level of dependence on debt and therefore an increased risk of bankruptcy if investments funded by debt do not generate profit (Huang, et al, 2023). The calculation of the DER ratio in this study uses the following formula:

The population in this study consists of food and beverage companies listed on the Indonesia Stock Exchange (IDX) during the period from 2014 to 2022. The technique used in this study employs purposive sampling method, which involves selecting samples based on specific considerations where the samples must meet certain criteria in order to obtain a representative sample. The sample used in this study is PT.Nippon Indosari Corporindo (Tbk) for the period 2014-2022.

The location where this research was conducted is the Indonesia Stock Exchange in Surabaya. The research was carried out in September 2023 and lasted for approximately one month. The data used in this study is quantitative data in the form of secondary data, such as annual reports, financial statements, journals, and books. The data collection in this research used literature review in the form of books and scientific journals, as well as documentation in the form of annual reports and financial reports of the company, which were obtained through the Indonesia Stock Exchange website accessed via www.idx.com.

This research uses multiple linear regression analysis to proxy the influence of independent and dependent variables when their values are increased or decreased. Regression analysis is employed to determine the impact *of profitability, growth opportunity, liquidity, and firm size* towards *capital structure*. The multiple linear regression equation in this study is as follows:

$$Y = a + b1X_1 + b2X_2 + b3X_3 + b4X_4 + e$$

Y   = *Capital Structure*

a   = Constanta

b1-b4   = Coefficient Regression

X_1 = *Profitability*

X_2 = *Growth Opportunity*

X_3 = *Likuidity*

X_4 = *firm size*

E   = Error Term

$$DER = \frac{Total\ Debt}{Capital}$$

Classical assumption tests are conducted to obtain valid and reliable parameter calculations. Classical assumption testing is carried out through tests of normality, multicollinearity, autocorrelation, and heteroscedasticity.

The normality test in this study uses the One-Sample Kolmogorov-Smirnov test statistic. The results of the normality test are presented in Table 1 (appendix). The asymp.sig. value (2-tailed) or p-value > 0.05 (0.200 > 0.05), thus it can be concluded that the data value is significant. This means that the residuals are normally distributed (Ghozali, 2016).

The regression equation that experiences multicollinearity problems is characterized by a high R2 value but has few independent variables significantly influencing the dependent variable. The method used to detect multicollinearity in this study is the Variance Inflation Factor (VIF) tolerance. The tolerance value limit is below 0.1 and VIF is 10. If the tolerance value is 0.1 or the VIF is above 10, then the data is said to have multicollinearity (Ghozali, 2016).

Ghozali (2016) states that the autocorrelation test in this study uses the Durbin Watson test from SPSS to determine the presence of autocorrelation. If the Durbin-Watson value approaches 2, then no autocorrelation is said to occur. If the value is 0 or 4, then autocorrelation is said to have occurred. Meanwhile on the feasibility test of the model (simultaneous F test), researcher found that:

a. If the probability value (sig. > 0.05), then, Ho and Ha are accepted, simultaneously there is a significant influence between the variables profitability, growth opportunity, liquidity, and firm size on the capital structure.

b. If the probability value (sig. > 0.05), then, Ho and Ha are rejected, simultaneously there is no significant influence between the variables firm size, growth opportunity, liquidity, and profitability on the capital structure.

If the probability (significance) is greater than a (sig. > 0.05), then Ho is accepted and Ha is rejected, the independent variables individually do not have a significant influence on the dependent variable. If the probability (significance) is less than a = (sig. < 0.05), then H_o is rejected and H_a is accepted, the variables individually have a significant influence on the dependent variable (Ghozali, 2016).

The determination of which independent variable has a dominant influence on the dependent variable can be seen from the highest or maximum beta coefficient, in addition, it can also be seen from the variable with the highest or maximum t-value (Ghozali, 2016).

The coefficient of determination value is between zero and one. A small R^2 value means that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the variation in the dependent variable (Ghozali, 2016).

RESULT AND DISCUSSION

The normality test in this study uses the One-Sample Kolmogorov-Smirnov statistical test. The results of the normality test in this study are shown in Table 1 (appendix). Table 1 (appendix) shows the asymp.sig. (2-tailed) value or p-value > 0.05 (0.200 > 0.05), so it can be concluded that the data value is significant. This means that the residuals are normally distributed. Referring to Table 1 (appendix), it can be explained that the asymp.sig. (2-tailed) value or p-value > 0.05 (0.200 > 0.05), so it can be concluded that the data value is significant. This means that the residuals

are normally distributed. The multicollinearity test shows a tolerance value > 0.10 and VIF < 10, indicating no multicollinearity among the independent variables used in the regression model constructed in this study.

The Durbin-Watson (dW) value in this study is 2.665, which is close to 2, indicating that this study does not experience autocorrelation. The Heteroskedasticity test shows that the scattered points do not form a clear pattern and have a value of 0 on the Y-axis, thus it is concluded that there is no heteroskedasticity in the study.

The Feasibility Test of the Model (Simultaneous F Test) in this study has the decision to reject H0 because the p-value < 0.05 (0.001 < 0.05). This value indicates that there is a simultaneous significant influence between the variables profitability, growth opportunity, liquidity, and firm size on the DER.

Furthermore, when the significant assessment of the independent variables on the dependent variable is conducted using the t-test, it is observed that the profitability has a negative influence on the DER with a calculated t-value of -3.359 and a significance of 0.012 < 0.05. The negative sign on the significance value indicates that profitability has a negative influence on the DER.

Meanwhile, the t-test results for growth opportunity show a positive influence on the DER with a calculated t-value of 2.447 and a significance of 0.044 (0.044 < 0.05). This statistic indicates that growth opportunity has a positive influence on the DER. The t-test also shows that liquidity has a positive influence on the DER with a calculated t-value of 3.886 and a significance of 0.006 (0.006 < 0.05). In the t-test, it is found that firm size influences the DER with a calculated t-value of -0.485 and a significance of 0.013 (0.013 < 0.05). This statistical result indicates that firm size has a significant negative influence on the DER.
Hypothesis test of the more dominant variable, resulting the table below:

Table 1. Results of the Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate	Durbin-Watson
1	.957	.917	.869	.6619	2.665

Tabel above shows that the R-square value is 0.917 (91.7%). This means that 91.7% of the variation in the dependent variable, DER, can be explained by the independent variables including profitability, growth opportunity, liquidity, and firm size. The remaining 8.3% will be explained by other independent variables not included in this study. The effective contribution is used to determine which variable has the largest contribution to DER, or in other words, which variable is the most dominant among the independent variables. This determination of effective contribution is done by multiplying the standardized coefficient value by the zero-order correlation for each independent variable.

Further explanation of the test results are, *Profitability* has a positive and significant influence on the company's structure. Companies with higher

profitability also have higher retained earnings accompanied by higher levels of debt because the company is considered to have good business prospects. The profit generated by the company can occur because the company expands its business to create even greater profits in the future. This study is in line with the pecking order theory and research conducted by Zuhro (2016), Watung et al. (2016), and Mariani (2021) but not in line with the research conducted by Mau et al. (2015).

The significant positive results of the study indicate that when a company has *growth opportunities*, it signifies that the market perceives the company to have a high level of return. This means the market is willing to invest its funds in the company with the expectation of obtaining high returns in the future. The research findings are consistent with the study conducted by Sanford and Mu-Jeung (2022), which states that growth opportunity influences capital structure.

The research results indicate that *liquidity* has a positive influence on DER. This study is in line with the research conducted by Sikveland et al. (2022), which states that company liquidity affects capital structure. The research also indicates that in order for a company to compete in a highly competitive environment, a large amount of cash is needed, so short-term debt is an alternative to meet the company's operational funds.

The research results indicate that *firm size* has a negative and significant influence, which means that the larger the company's size, the more cautious the company will be in using capital from both internal and external sources. Companies with a larger size tend to have large assets, therefore management will maximize the use of these assets. This study is in line with the research conducted by Akyuz et al. (2006), Zuhro (2016), and Mariani (2021) and not in line with the research conducted by Mau et al. (2015).

CONCLUSIONS AND RECOMMENDATIONS

Based on the research results presented above and the discussion, the following conclusions can be drawn:

1. Profitability, growth opportunity, liquidity, and firm size have a simultaneous influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.
2. Profitability, growth opportunity, liquidity, and firm size have a partial influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.
3. Profitability, growth opportunity, liquidity, and firm size have a dominant influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.

The following suggestions can be given for this research:

1. The company needs to maintain profitability, growth opportunity, liquidity, and firm size because they have a simultaneous influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.
2. The company needs to increase profitability, growth opportunity, liquidity, and firm size because they have a partial influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.

3. The company needs to increase profitability, growth opportunity, liquidity, and firm size because they have a dominant influence on the capital structure of PT Nippon Indosari Corporindo (Tbk) listed on the IDX.

ADVANCED RESEARCH

There are several advantages on future reasearch for both company and correlation between variables, namely are:

1. Comparative Analysis: Compare the influence of profitability, growth opportunity, liquidity, and firm size on capital structure across different countries or regions. This could uncover how cultural, legal, or institutional differences impact the financing decisions of firms.
2. Impact of Financial Crisis: Investigate how the influence of profitability, growth opportunity, liquidity, and firm size on capital structure was affected by major financial crises. This could shed light on how firms adjust their capital structure strategies in response to economic downturns and financial instability.
3. Behavioral Factors: Explore the behavioral aspects of capital structure decisions by examining how managerial characteristics, risk preferences, and cognitive biases influence the relationship between profitability, growth opportunity, liquidity, and firm size on capital structure.
4. Industry-Specific Studies: Conduct in-depth analyses within specific industries to understand how the influence of profitability, growth opportunity, liquidity, and firm size on capital structure varies across different sectors, considering the unique characteristics and challenges each industry faces.

These future research directions could provide valuable insights into the complex interplay between financial performance, growth prospects, liquidity, firm size, and capital structure decisions within firms.

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