CAPITAL STRUCTURE IMPACT OF COMPANY SIZE, ASSET STRUCTURE AND LIQUIDITY

Dede Hertina
Monica Wijaya
Gugun Gunawan
Mohd Haizam Saudi

DOI: https://doi.org/10.37178/ca-c.23.1.252

Dede Hertina, *Widyatama University, Bandung, Indonesia*
Email: dede.hertina@widyatama.ac.id

Monica Wijaya, *Widyatama University, Bandung, Indonesia*
Email: Monica.wijaya@widyatama.ac.id

Gugun Gunawan, *Widyatama University, Bandung, Indonesia*
Email: gunawan.gugun@widyatama.ac.id

Mohd Haizam Saudi, *Widyatama University, Bandung, Indonesia*

ABSTRACT

This study aims to determine the effect of firm size, asset structure, and liquidity on capital structure. The sample of this research is manufacturing companies in the consumer goods sector listed on the Indonesia Stock Exchange for the 2015-2019 period. The method used in sampling is using purposive sampling method with a total sample of 30 companies. Hypothesis testing using multiple regression analysis. The results of the study simultaneously state that firm size, asset structure and liquidity have an effect on capital structure. The results of the study partially state that firm size and asset structure have a positive effect on capital structure, while liquidity has a negative effect on capital structure.

Keywords: *Company Size, Asset Structure and Liquidity.*

Introduction

Increasing economic competition from year to year encourages company managers to be able to improve production, marketing and company strategy. Company managers are also required to maximize shareholder wealth. To be able to meet the company's goals, it is necessary to make the right decisions on the part of the company. One of the important decisions for the company is the decision regarding the capital structure. Many

factors affect the capital structure in general, including company size, company growth, profitability, taxes, management, leverage, liquidity, non-debt tax, and business risk and so on. This study focuses on factors such as asset structure, firm size, and liquidity that affect capital structure. This funding issue is very important for the business world because it relates to many parties such as creditors, shareholders, and the management itself. The company's financial funding decisions will greatly determine the ability of a company to carry out its operating activities. If a company will increase the amount of leverage, then the company will automatically increase its financial risk.

Capital structure is a consideration or comparison between the amount of long-term debt with own capital [1]. Capital structure is a mixture or proportion between long-term debt and equity, in order to fund its investment (operating assets). Capital structure can be measured by the ratio of total debt to equity through [2]. The use of DER is intended to facilitate measurement because capital structure cannot be measured directly [3]. The greater the DER, the greater the risk that must be faced by the company, because the use of debt as a source of funding is much greater than its own capital. A good company is a company that can determine cheap funding with low interest and flexible terms, so that debt becomes profitable for the company. Capital structure is influenced by many factors. According to [4, 5] in [6] said that capital structure decisions also directly affect the amount of risk borne by shareholders and the expected rate of return on profits. Therefore, managers must understand what factors can affect the capital structure. Some of the factors that influence the capital structure used in this study include asset structure, company size, and liquidity.

LITERATURE REVIEW

The capital structure is part of the financial structure. Capital structure is a balance or comparison between the amount of long-term debt with own capital [1, 7]. Meanwhile, according to [8] capital structure is the mix (proportion) of the company's long-term permanent funding which is indicated by debt, equity, preferred stock and common stock. The existence of a targeted capital structure can help companies to always be consistent in determining the capital structure. If in fact the debt ratio turns out to be below the target level, capital expansion will usually be carried out by issuing debt while if the debt ratio is above the target level, usually equity will be issued [4, 9]. The capital structure is different from the financial structure, where the capital structure is a permanent expenditure that reflects the long-term debt with own capital, while the financial structure reflects the balance of all debt (both long-term and short-term) with own capital [9, 10]. The structure or composition of capital must be regulated in such a way that the financial stability of the company is guaranteed. Indeed, there is no definite measure of the amount and composition of the capital of each company. But basically the regulation of the capital structure in the company must be oriented towards achieving financial stability and ensuring the survival of the company.

Factors Affecting Capital Structure Company Size

Company size describes the size of a company which is aimed at total assets, total sales, average sales and average total assets [1]. Asset size is the average net sales for the year concerned up to several years [4]. The size of the company will affect the capital structure based on the fact that the larger a company will have a high growth rate, so that the company will be more daring to issue new shares and tend to use a larger loan amount.

Liquidity

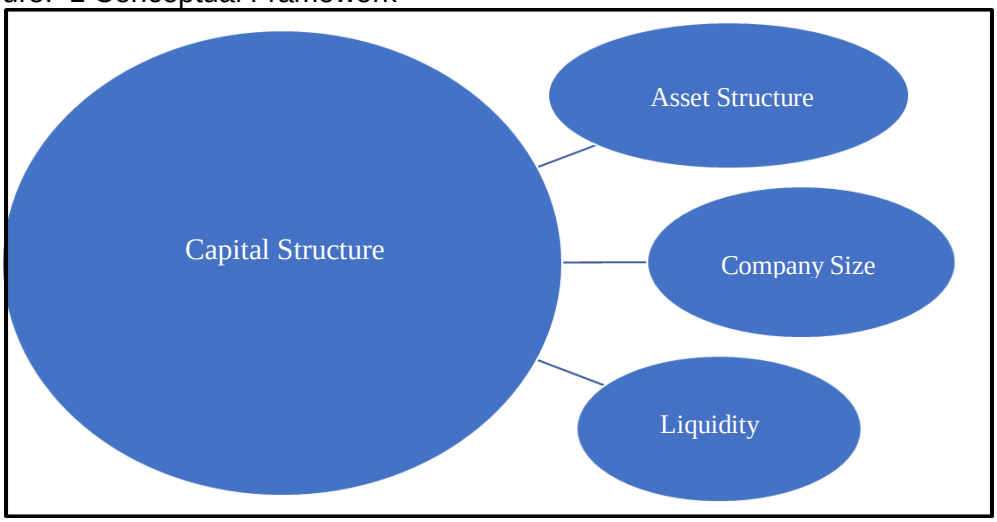
Liquidity ratio is a ratio used to measure the company's ability to pay short-term debt that has matured. Companies that can immediately repay their debts will gain the trust of creditors to issue large amounts of debt. [1]states that the need for funds for current assets in principle is financed by short-term credit. So the more liquid a company is, the higher the use of debt.

Asset Structure

Assets are anything owned by the company. Assets can be classified into fixed assets, intangible assets, and other assets. Asset structure is one of the important factors in the company's capital structure or funding decisions, because if the company is faced with financial difficulties in paying its debts, tangible assets or fixed assets owned by the company can act as collateral to outside parties who provide loans [11, 12]. Companies that have a large asset structure tend to have a relatively lower risk of bankruptcy than companies that have a low asset structure. Because assets show the assets used for the company's operational activities. The larger the assets, the greater the operational results generated by the company. The greater the assets, the company's productivity also increases. Manufacturing companies have various alternatives in financing their companies. There are two main sources of funds that can be used in this financing, namely sources of loans and from own capital and retained earnings. The decision on the source of funding is a very important decision for manufacturing companies, given the impact on the sustainability of manufacturing companies. In addition to the need for manufacturing companies to increase their working capital, the factors considered by management in making decisions regarding the use of debt are mainly related to two things, first, the ease of obtaining sources of loans will encourage management to make loans. Second, the financial position of manufacturing companies will also affect the willingness of creditors to provide funds to manufacturing companies. Management's decision to use debt is an effort to get the maximum benefit from the use of debt obtained from saving on tax costs on the one hand and interest payments on the other. The financial position of manufacturing companies and the results of management decisions on the use of debt are reflected in the financial statements of manufacturing companies. How manufacturing companies balance the two components of debt will be seen in the capital structure as it is on the balance sheet. Information in financial statements that are transparent will provide an overview of management decisions in determining the use of money for manufacturing companies. Many factors can affect the capital structure of a manufacturing company. In this study, the factors that influence the capital structure of manufacturing companies are measured through liquidity, profitability, asset structure, sales growth, asset growth, and business risk. The results of [13] state that asset structure and profitability have a positive effect on capital structure and support the static trade-off hypothesis. Meanwhile, firm size has a negative effect on capital structure and supports the pecking order hypothesis. The results of research by [14, 15] show that profitability and asset structure have a negative and significant effect on capital structure, while growth opportunities have a negative and insignificant effect on capital structure. The results of research by [16] state that profitability has a negative and significant effect on capital structure. Dividends have no effect on capital structure while Asset Structure has a positive effect on capital structure. The results of research by [17] show the factors that influence the capital structure of construction companies listed on the Malaysian Stock Exchange during 2000-2007 with a sample of 42 companies, stating that the level of profitability has a negative and significant effect. on capital structure while size, growth, and tangibility assets have a

positive effect on capital structure.

Figure. 1 Conceptual Framework



HYPOTHESIS

H1: Firm Size, Asset Structure and Liquidity have a significant effect on Capital Structure H2: Firm Size has an effect on Capital Structure.

H3: Liquidity affects the Capital Structure.

H4: Asset Structure has an effect on Capital Structure.

RESEARCH METHODS

Data Types and Sources

The data used in this study are secondary data, namely the source of research data obtained by researchers indirectly through intermediary media. Secondary data is generally in the form of evidence, defects, or historical reports that have been compiled in published archives. The data is in the form of an annual report issued by the Indonesia Stock Exchange for the 2015-2019 period.

Data Analysis Method

The data analysis method used in this study is a statistical analysis method using data analysis methods used in this study, including classical assumption testing which is then followed by regression analysis and hypothesis testing.

Population and Sample

1. Population

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions [18]. The population in this study are manufacturing companies that have been and are still listed on the Indonesia Stock Exchange for the 2015-2019 period that publish financial reports.

2. Sample

The sample is part of the number and characteristics possessed by the population [18]. The sampling technique used in this study is the purposive sampling method, namely the determination of the sample based on certain criteria as desired by the researcher

Research Sampling Criteria

1. Manufacturing companies that have been and are still listed on the Indonesia Stock Exchange in 2015-2019.
2. The sample companies published financial statements for 5 consecutive years, namely 2015-2019
3. The company has complete data needed for research in the 2015-2019 research period.

Table 1

Operational Variable

Capital Structure (Y1)	$Debt\ Equity\ Ratio = \frac{Debt}{Equity}$
Company Size (X1)	**SIZE = *ln* (total aktiva)**
Liquidity (X2)	$Asset\ Structure = \frac{Fixed\ Asset}{Total\ Asset}$
Asset Structure (X3)	$Current\ Ratio = \frac{Current\ \ Asset}{Debt}$

Research Results and Discussion

The classical assumption test consists of normality test, multicollinearity test, autocorrelation test and heteroscedasticity test to ensure whether the regression model used does not have multicollinearity, autocorrelation, heteroscedasticity problems and the resulting data is normally distributed. After fulfilling the classical assumption test, the simultaneous significance test, partial significance test, and determinant coefficient test were carried out.

Normality Test

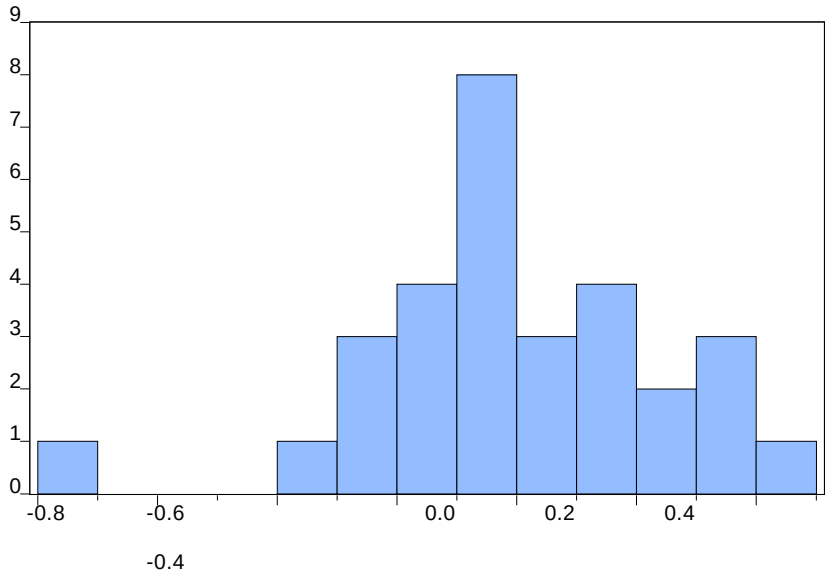


Fig. 2 Normality Test

Source: Results of Data Processing (2021)

The results of data processing concluded that the Jarque-Bera value was 2.195179 > 2 (meaning significant), and the probability value was 0.333674 > 5% (0.05), so it can be concluded that the equation in this study has a normality problem or the data is not normally distributed.

Multicollinearity Test

Table 2

Multicollinearity Test

	X1	X2	X3
X1	1.000000	-0.548515	0.102342
X2	-0.548515	1.000000	0.549108
X3	0.102342	-0.549108	1.000000

Source: Results of Data Processing (2021)

The results of the multicollinearity test data that for each independent variable the correlation coefficient value < 0.8. Thus, it can be concluded that there is no multicollinearity between the independent variables.

Autocorrelation Test

Table 3

Autocorrelation Test

dL	dU	dw	4-dU	4-dL
1.2138	1.6498	1.802595	2.3511	2.7862

The results of the Autocorrelation Test Data show that the results of the autocorrelation test carried out using the Durbin-Watson method are 1.802595, so it can be concluded that there is no positive or negative autocorrelation.

Uji Heterokedastisitas

Table 4

Uji Heterokedastisitas

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.625679	0.506803	1.234560	0.2280
X1	-0.016510	0.026011	-0.634749	0.5311
X2	-0.240644	0.255236	-0.942827	0.3544
X3	-0.041581	0.027599	-1.506608	0.1440
R-squared	0.081938	Mean dependent var		0.178608
Adjusted R-squared	-0.023992	S.D. dependent var		0.158046
S.E. of regression	0.159931	Akaike info criterion		-0.704585
Sum squared resid	0.665024	Schwarz criterion		-0.517759
Log likelihood	14.56878	Hannan-Quinn criter.		-0.644818
F-statistic	0.773512	Durbin-Watson stat		1.802595
Prob(F-statistic)	0.519351			

Source: Results of Data Processing (2021)

Based on the results of these data, the data has a probability value or an absolute value of residual > 0.05. Thus, it can be concluded that there is no heteroscedasticity problem.

Data Analysis

Table 5

Multiple Linear Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.048139	0.805854	3.782495	0.0008
X1	-0.095620	0.041359	-2.311957	0.0290
X2	0.382452	0.405844	0.942362	0.3547
X3	-0.336755	0.043885	-7.673641	0.0000
R-squared	0.829853	Mean dependent var		1.121000
Adjusted R-squared	0.810221	S.D. dependent var		0.583747
S.E. of regression	0.254302	Akaike info criterion		0.222975
Sum squared resid	1.681403	Schwarz criterion		0.409801
Log likelihood	0.655380	Hannan-Quinn criter.		0.282742
F-statistic	42.26974	Durbin-Watson stat		1.689951
Prob(F-statistic)	0.000000			

Source: Results of Data Processing (2021)

Regression Equation

Multiple Regression Equation Interpretation

1. Firm size variable has a significance value of 0.095620 which is smaller than 0.05 (5%). This shows that the size of the company has an effect on the capital structure. Thus, the second hypothesis (H2) is accepted.
2. Liquidity variable has a significance of 0.382452 greater than 0.05. This shows that liquidity has no effect on capital structure. Thus, the third hypothesis (H3) is rejected.
3. The Asset Structure variable has a significance of -0.336755 which is smaller than 0.05 (5%). This shows that the Asset Structure has an effect on the capital structure. Thus, the fourth hypothesis (H4) is accepted.

Y = 3.048139 - 0.095620 SIZE + 0.382452 FAR – 0.336755 CR

The Effect of Firm Size on Capital Structure

The Effect of Firm Size on Capital Structure. The larger the size of a company, the greater the tendency to use external funds. Large companies whose shares are widely spread will be more willing to issue new shares to meet their needs to finance sales growth than smaller companies. This is because large companies have large funding needs and one alternative to fulfill the funds is to use external funds, namely by using debt. Therefore, large companies tend to have a greater level of leverage than small companies [19].

Effect of Liquidity on Capital Structure

Liquidity in this study is measured using the current ratio which is a commonly used measure to determine the ability of a company to meet short-term obligations. Companies that have a high level of liquidity means that the company has high internal funds, thus the company will reduce its external funding. This is because a company with a high level of liquidity has large internal funds, so that the company will use its internal funds first to finance its investment before using external financing through debt. The higher the company's liquidity will reduce the need for external funds or debt.

Effect of Asset Structure on Capital Structure

The asset structure reflects the two components of assets in broad outline in their composition, namely current assets and fixed assets, current assets are cash and other assets that can be realized into cash or sold in one accounting period. While fixed assets are tangible assets obtained in ready-to-use form in the company's operations. The larger the company has fixed assets compared to its intangible assets, the greater the value of the guarantee owned by the company to obtain debt that can be used for the company's operations and development.

CONCLUSION

1. Firm size, liquidity and asset structure variables simultaneously affect the capital structure. Company size, sales growth and profitability play a significant role in influencing the capital structure
2. Company size is one of the factors considered in determining the company's capital structure, the larger the company, the larger the funds needed and one alternative to fulfill the funds is to use external funds, namely by using debt. So that the larger the size of the company, the tendency to use greater debt to meet their funding needs.
3. Liquidity reflects the availability of funds owned by the company to meet all maturing debts, so it can be concluded that liquidity is the ability of a company to pay off its short-term debt which must be paid at maturity to maintain liquidity.

4. A high asset structure indicates that the company has abundant fixed assets, these abundant fixed assets can be used by the company as collateral to obtain debt. So that companies with a high asset structure have easier debt compared to companies with a low asset structure. It can be interpreted that the higher the asset structure, the higher the debt.

Reference

1. Bambang, R., *Corporate spending basics.* Fourth Edition, Seventh Printing, BPFE Yogyakarta, Yogyakarta, 2001. **59**.
2. Nur'aidawati, S., *The Effect of Current Ratio (CR), Total Asset Turnover (TATO), Debt to Equity Ratio (DER) and Return On Assets (ROA) on Stock Prices and Their Impact on Company Value (Case Study on the Ten Largest Banks Listed on the Indonesia Stock Exchange Period 2011–2015).* Jurnal SEKURITAS (Saham, Ekonomi, Keuangan dan Investasi), 2018. **1**(3) DOI: https://doi.org/10.32493/skt.v1i3.1091.
3. Aulia, H., L. Al Ashry, and H. Fitra. *Effect of Sales Growth and Asset Structure on Capital Structure in Real Estate and Property Companies on the Indonesia Stock Exchange*. Atlantis Press DOI: https://doi.org/10.2991/icesshum-19.2019.5.
4. Cyert, M., S. Kang, and P. Kumar, *Astasari, K., & Nugrahanti, Y. (2015). 'The effect of ownership structure, audit committee size and audit quality on the area of key management compensation in financial statements', Derema Management Journal, Volume X, p. 1-25. Brigham, E., & Houston, J. (2011). Essentials of financial management, Edition 11, Jakarta: Salemba Empat.* Management Science. **48**: p. 453-469 DOI: https://doi.org/10.1287/mnsc.48.4.453.205.
5. Landge, S.B., et al., *Separation and quantification of structurally similar impurities by hplc method of vortioxetine hydrobromide-an antidepressant drug.* EUROPEAN CHEMICAL BULLETIN, 2020. **9**(4): p. 114-118 DOI: https://doi.org/10.17628/ecb.2020.9.114-118.
6. Slamet, R., *Influence of capital structure, size and growth on profitability and corporate value.* International Journalof Business and Finance Management Research, 2016. **4**(6).
7. Liu, G., et al., *ABRAHAM SOLVATION PARAMETER MODEL: PREDICTION OF ENTHALPIES OF VAPORIZATION AND SUBLIMATION OF MONO-METHYL BRANCHED ALKANES USING MEASURED GAS CHROMATOGRAPHIC DATA.* EUROPEAN CHEMICAL BULLETIN, 2020. **9**(8): p. 273-284 DOI: https://doi.org/10.17628/ecb.2020.9.273-284.
8. Hasan, M.B., et al., *Influence of capital structure on firm performance: Evidence from Bangladesh.* International Journal of Business and Management, 2014. **9**(5): p. 184 DOI: https://doi.org/10.5539/ijbm.v9n5p184.
9. Martinez, M., *Non-agricultural diversification, mobile phone adoption and income in rural Mexico.* Cuadernos de Economía, 2020. **43**(123): p. 327-340.
10. Mahdaleta, E., I. Muda, and G.M. Nasir, *Effects of capital structure and profitability on corporate value with company size as the moderating variable of manufacturing companies listed on Indonesia Stock Exchange.* Academic Journal of Economic Studies, 2016. **2**(3): p. 30-43.
11. Owolabi, S.A., U.E. Inyang, and E. Uduakobong, *Determinants of capital structure in Nigerian firms: A theoretical review.* eCanadian Journal of Accounting and Finance, 2012. **1**(1): p. 7-15.
12. Mikhailov, O.V. and D.V. Chachkov, *Stabilization of dioxochromium (VI) in the complex with tetra [benzo] porphyrazine and two oxo ligands: DFT quantum-chemical consideration.* European Chemical Bulletin, 2020. **9**(12): p. 416-419 DOI: https://doi.org/10.17628/ecb.2020.9.416-419.
13. Proença, P., R.M.S. Laureano, and L.M.S. Laureano, *Determinants of capital structure and the 2008 financial crisis: evidence from Portuguese SMEs.* Procedia-Social and Behavioral Sciences, 2014. **150**: p. 182-191 DOI: https://doi.org/10.1016/j.sbspro.2014.09.027s.
14. Mohamad, A., H. Umar, and H. Agustina, *Effect of growth opportunity, corporate tax, and profitability toward value of firm through capital structure (listed manufacturing companies of Indonesia).* Финансы: теория и практика, 2019. **23**(5).
15. Miraoui, A. and M.A. Didi, *NEODYMIUM (III) SORPTION ONTO SODIUM BENTONITE AND MAGNETIC ACTIVATED CARBON: A COMPARATIVE STUDY.* EUROPEAN CHEMICAL BULLETIN, 2020. **9**(6): p. 138-147 DOI: https://doi.org/10.17628/ecb.2020.9.138-147.
16. Joni, J. and L. Lina, *Factors affecting capital structure.* Jurnal Bisnis dan Akuntansi, 2010. **12**(2): p. 82-

97.
17. Baharuddin, N.S., et al., *Determinants of capital structure for listed construction companies in Malaysia.* Journal of Applied Finance and Banking, 2011. **1**(2): p. 115.
18. Anjayani, P. and S. Suprapto. *Error analysis on the use of prepositions in students' writing (a case study of the eleventh grade students of SMA negeri 9 semarang in the academic year of 2014/2015)*.
19. Muigai, R.G. and J.G. Muriithi, *The moderating effect of firm size on the relationship between capital structure and financial distress of non-financial companies listed in Kenya.* Journal of finance and accounting, 2017. **5**(4): p. 151-158 DOI: https://doi.org/10.11648/j.jfa.20170504.15.