SIMBA

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PENGARUH LIKUIDITAS DAN SOLVABILITAS TERHADAP STRUKTUR MODAL DENGAN UKURAN PERUSAHAAN SEBAGAI VARIABLE MODERASI

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Abstrak

Penelitian ini bertujuan untuk menguji pengaruh likuiditas dan solvabilitas terhadap struktur modal, serta peran ukuran perusahaan sebagai variabel moderasi pada perusahaan real estate yang terdaftar di bursa efek indonesia (BEI) periode 2021–2024. Populasi penelitian ini adalah perusahaan properti and real estate yang berjumlah 94 perusahaan. Jumlah sampel perusahaan ini berjumlah 62 perusahaan yang ditentukan dengan purposive sampling. Metode penelitian yang digunakan yaitu kuantitatif dengan analisis linier berganda dan Moderated Regression Analysis (MRA) menggunakan bantuan spss 24. Hasil penelitian menunjukkan bahwa likuiditas tidak berpengaruh signifikan terhadap struktur modal, sementara solvabilitas berpengaruh positif dan signifikan terhadap struktur modal. Ukuran perusahaan tidak mampu memoderasi pengaruh likuiditas dan solvabilitas terhadap struktur modal.
Kata Kunci: Likuiditas, Solvabilitas, Struktur Modal, Ukuran Perusahaan

Abstract

This study aims to examine the effect of liquidity and solvency on capital structure, as well as the role of company size as a moderating variable in real estate companies listed on the Indonesia Stock Exchange (IDX) for the 2021–2024 period. The study population was 94 property and real estate companies. The sample size of these companies was 62 companies determined by purposive sampling. The research method used was quantitative with multiple linear analysis using SPSS 24. The results showed that liquidity had no significant effect on capital structure, while solvency had a positive and significant effect on capital structure. Company size was unable to moderate the effect of liquidity and solvency on capital structure.
***Keywords**: Liquidity, Solvency, Capital Structure, Company Size.*

A. INTRODUCTION

Capital structure is a crucial aspect that determines a company's ability to meet financial obligations and maintain business continuity. This is evident in PT Waskita Beton Precast Tbk (WSBP), which in 2023 undertook financial restructuring through the issuance of new shares to address its equity capital deficiency. This step demonstrates the crucial role liquidity and solvency dynamics play in capital structure management, particularly in the real estate sector, which requires substantial and continuous funding.

Optimal capital structure management is crucial because it maintains financial stability, minimizes the risk of bankruptcy, and provides flexibility for companies in accessing external funding. High liquidity reflects a company's ability to meet short-term obligations, while adequate solvency indicates its ability to meet long-term obligations. Companies with good solvency are generally viewed as more credible by creditors and investors, allowing them to access debt at a relatively low cost. Therefore, liquidity and solvency play a crucial role in establishing a healthy and sustainable capital structure.

Several previous studies have shown that liquidity, solvency, and firm size significantly influence capital structure (Lilia et al., 2020; Monica & Wi, 2022). However, most studies have focused on the manufacturing or industrial sector in general, rather than specifically on the real estate subsector, which has distinct characteristics in asset management and funding. Furthermore, previous studies have emphasized additional variables such as profitability, managerial ownership, or foreign ownership, resulting in little exploration of the contribution of solvency in relation to firm size as a moderating variable. Based on this gap, this study focuses on examining the effect of liquidity and solvency on capital structure by incorporating firm size as a moderating variable in real estate companies listed on the Indonesia Stock Exchange (IDX) for the 2021–2024 period. Therefore, the results of this study are expected to provide the latest empirical evidence and enrich the literature on factors influencing the capital structure of real estate companies in Indonesia.

1. Pecking Order Theory

The Pecking Order theory emphasizes that companies have a hierarchy in making funding decisions, namely by prioritizing the option that is considered the most efficient in

terms of cost and the lowest risk before moving on to other alternatives (Kho & Susanti, 2023). The Pecking Order Theory emphasizes a priority order in corporate financing. First, companies prefer internal funds sourced from operating profits because they are relatively low-cost and carry minimal risk compared to debt financing. Second, companies maintain a consistent dividend distribution policy, which serves as a positive signal to investors and supports investment sustainability. Third, if internal funding is insufficient and the company requires external funding, the first choice will be directed to the source deemed safest before considering other, higher-risk options.

2. Trade Off Theory

The concept of Trade-off theory illustrates that in determining capital structure, companies make a trade-off between the benefits in the form of tax savings from debt financing with the negative consequences that may arise, namely an increased chance of financial difficulties or bankruptcy (Fathiya Luthfita et al., 2022). As one of the main approaches to determining capital structure, the Trade-off theory asserts that companies must balance the use of debt. The optimal debt level is achieved when the tax savings benefits of increased debt are equal to the additional agency costs arising from higher debt use.

3. Capital Structure

Capital structure is defined as the composition of a company's funding, whether derived from debt or equity. This composition is heavily influenced by the company's ability to maintain liquidity, namely the availability of current assets to meet short-term obligations, and solvency, namely the company's ability to meet all its obligations (Anindra Salsabilla et al., 2022). Selecting an optimal capital structure significantly determines a company's ability to meet all its obligations, both short-term and long-term. Healthy liquidity and a maintained solvency level can strengthen a company's financial position, thereby supporting overall financial stability.

4. Liquidity

Liquidity can be defined as a financial indicator that assesses the extent to which a company is able to pay its short-term obligations using current assets, such as cash, receivables, or inventory, which are easily converted into cash (Lubis et al., 2023). Liquidity plays a crucial role in ensuring timely payment of company obligations. High liquidity is a positive indication that a company has sufficient capacity to meet its financial obligations. Conversely, decreased liquidity is often associated with declining operational performance and financial health.

H_1 : Liquidity has a positive effect on Capital Structure

5. Solvency

Solvency can be defined as a company's capacity to cover its long-term obligations. This includes the ability to pay all debts as they fall due within the specified period, thus reflecting the company's long-term financial strength (Monica & Wi, 2022). A healthy solvency situation indicates that a company has lower financial risk and a greater capacity to cover its debt burden. This is highly relevant in capital structure decision-making, as the solvency level can determine the extent to which a company relies on debt or equity funding.

H_2 : Solvency has a positive effect on Capital Structure

6. Firm Size

Firm size is understood as a measure that reflects the scale of a company. This measurement is generally based on total assets controlled, the amount of equity held, or the level of sales generated, thus providing an overview of the company's strength and capacity in carrying out its operational activities (Rosalina & Desti, 2023). As a moderating variable, firm size plays a strategic role in influencing the relationship between capital structure and a company's liquidity and solvency. Larger companies typically have access to a wider range of external financing options, both through debt and equity, thus providing greater flexibility in developing optimal capital structure policies.

H_3 : Firm Size moderates the effect of Liquidity on Capital Structure

H_4 : Firm Size moderates the effect of Solvency on Capital Structure

B. METHOD

This research was conducted using a quantitative approach using a descriptive verification method to analyze the effect of liquidity and solvency on capital structure, with company size as a moderating variable. The data used were secondary data in the form of financial reports of property and real estate companies listed on the Indonesia Stock Exchange (IDX) during the period 2021–2024. The sample was determined using a purposive sampling method with specific criteria, resulting in 62 companies that met the requirements for the study.

Table 1 List of Sample Criteria

No	Information	2021	2022	2023	2024
1.	Number of Property and Real Estate Companies listed on the IDX in 2021 - 2024	94	94	94	94
2.	Companies in the Property and Real Estate sector that did not publish annual reports for 2021-2024	(38)	(39)	(34)	(37)
Total sample of companies for the period 2021-2024		56	55	60	57
Number of Observations		228			

Source : www.idx.co.id, 2024

The sampling criteria in this study were designed to ensure compliance with the research objectives. Through these criteria, the data obtained is expected to be not only relevant, but also complete, consistent, able to reflect the company's true financial condition, and possess a high level of accountability.

C. RESULTS AND DISCUSSIONS

Uji Statistik Deskriptif

Table 2 Results of Descriptive Statistical Tests

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity	110	-1,49	1,96	0,0129	0,74038
Solvency	110	-1,70	1,75	-0,1108	0,74335
Capital Structure	110	-0,93	0,96	0,0410	0,47595
Firm Size	110	-1,40	1,66	-0,0915	0,60131
Valid N (listwise)	110				

Source: Data processed by IBM SPSS statistics 24

The table shows that the liquidity variable (X_1) has the lowest value of -1.49, the highest of 1.96, an average of 0.0129, and a standard deviation of 0.74038. Solvency (X_2) has a minimum value of -1.70, a maximum of 1.75, an average of -0.1108, and a standard deviation of 0.74335. Capital structure (Y) has a minimum value of -0.93, a maximum of 0.96, an average of 0.0410, and a standard deviation of 0.47595. Company size (Z) has a minimum value of -1.40, a maximum of 1.66, an average of -0.0915, and a standard deviation of 0.60131.

Classical Assumption Test

Normality Test

Table 3 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		110
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	0,32643072
Most Extreme Differences	Absolute	0,061
	Positive	0,047
	Negative	-0,061
Test Statistic		0,061
Asymp. Sig. (2-tailed)		0,200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Data processed by IBM SPSS statistics 24

The results in Table 3 show an Asymp. Sig. (2-tailed) of 0.200 > 0.05. This means that the residual data in this study is normally distributed.

Multicollinearity Test

Table 4 Multicollinearity Test Results

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Liquidity	0,980	1,020
	Solvency	0,981	1,020
	Firm Size	0,998	1,002
a. Dependent Variable: Capital Structure			

Source: Data processed by IBM SPSS statistics 24

Based on Table 4, the results of the multicollinearity test show that all independent variables have a tolerance above 0.10 and a VIF below 10. This means that the regression model does not experience multicollinearity problems. Liquidity (X_1) has a tolerance of 0.980 and a VIF of 1.020; solvency (X_2) has a tolerance of 0.981 and a VIF of 1.020; while company size (Z) has a tolerance of 0.998 and a VIF of 1.002.

Heteroscedasticity Test

Table 5 Heteroscedasticity Test Results

Coefficients[a]			
Model		t	Sig.
1	(Constant)	14,818	0,000
	Liquidity	0,362	0,718
	Solvency	-0,107	0,915
	Firm Size	-0,988	0,326
a. Dependent Variable: ABS_REST			

Source: Data processed by IBM SPSS statistics 24

The Glejser test results show that liquidity has a significance of 0.718, solvency 0.915, and company size 0.326. All values are greater than 0.05, so this model is free from heteroscedasticity.

Autocorrelation Test

Table 6 Autocorrelation Test Results

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,399[a]	0,159	0,151	0,30118395	2,006
a. Predictors: (Constant), Liquidity, Solvency					
b. Dependent Variable: Capital Structure					

Source: Data processed by IBM SPSS statistics 24

The Durbin-Watson test results show a value of 2.006. With a sample size of 110 and two independent variables (K = 2), the upper limit (dU) value is 1.726 and the 4-dU value is 2.273. Since the test results are between the dU and 4-dU ranges (1.726 < 2.006 < 2.273), it can be concluded that there is no autocorrelation in the model, so the classical assumptions are met and the model is suitable for use in regression testing.

t-test

Table 7 t-Test Results

Coefficients[a]			
Model		t	Sig.
1	(Constant)	2,890	0,005
	Liquidity	-0,912	0,364
	Solvency	10,633	0,000
a. Dependent Variable: Capital Structure			

Source: Data processed by IBM SPSS statistics 24

Based on the table above, the influence of the hypothesis can be seen as follows:

1. Liquidity has a t-value of -0.912 with a significance level of 0.364 (>0.05), so it has no significant effect on firm value. This means **H_1 is rejected**.

2. Solvenability has a t-value of 10.633 with a significance level of 0.000 (<0.05), so it has a significant effect on firm value. This means **H_2 is accepted**.

F test

Table 8 F Test Results

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,077	3	4,359	39,781	0,000[b]
	Residual	11,615	106	0,110		
	Total	24,691	109			
a. Dependent Variable: Capital Structure						
b. Predictors: (Constant), Firm Size, Solvency, Liquidity						

Source: Data processed by IBM SPSS statistics 24

Referring to Table 8, the F value is 39.781 with a significance level of 0.000, which is less than 0.05. This condition proves that the independent variables have a simultaneous and significant influence on the dependent variable. Based on these results, it can be concluded that the regression model meets the eligibility criteria and can be used for further analysis.

R2 Test

Table 9 R2 Test Results

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,399[a]	0,159	0,151	0,30118395
a. Predictors: (Constant), Liquidity, Solvency				
b. Dependent Variable: Capital Structure				

Source: Data processed by IBM SPSS statistics 24

Referring to Table 9, the Adjusted R Square value was recorded at 0.151. This value indicates that the independent variable in the study were able to explain 15.1% of the variation in the dependent variable. Meanwhile, the remaining 84.9% was influenced by other factors not

included in this research model, thus opening up opportunities for further research by considering additional variables.

Moderation Interaction Test

Table 10 Results of Moderation Interaction Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1.	Liquidity*Firm Size	0,098	0,072	0,097	1,370	0,174
	Solvency*Firm Size	0,129	0,084	0,111	1,535	0,128
a. Dependent Variable: Capital Structure						

Source: Data processed by IBM SPSS statistics 24

Based on table 10, it can be concluded that the significant value of the interaction variable between the independent variables and the moderating variable (company size) is as follows:

1. The interaction between liquidity and firm size was 0.174 (>0.05), thus **rejecting H_3**. This means that firm size does not moderate the effect of liquidity on capital structure.
2. The interaction between solvency and firm size was 0.128 (>0.05), thus **rejecting H_4**. This means that firm size does not moderate the effect of solvency on capital structure.

B. CONCLUSIONS

This study aims to obtain empirical evidence regarding the effect of liquidity and solvency on capital structure, with firm size as a moderating variable, using property and real estate companies listed on the Indonesia Stock Exchange (IDX) for the 2021–2024 period. A total of 94 companies met the sample criteria, producing 110 normalized data sets. The analysis employed multiple linear regression and Moderated Regression Analysis (MRA) with IBM SPSS Statistics 24. Based on the findings, several conclusions can be drawn:

1. Liquidity does not significantly affect capital structure, indicating that variations in liquidity levels do not influence the financing decisions of property and real estate companies.

2. Solvency has a significant effect on capital structure, suggesting that higher debt obligations strongly influence how these companies arrange their funding mix.
3. Firm size does not moderate the relationship between liquidity and capital structure, implying that larger firms do not gain a stronger or weaker effect of liquidity on their financing policies.
4. Firm size also does not moderate the relationship between solvency and capital structure, meaning that firm size does not alter the impact of solvency on financing decisions.
5. The simultaneous effect of liquidity, solvency, and firm size on capital structure is significant, yet the Adjusted R^2 of 0.151 indicates that only 15.1% of the variation in capital structure is explained by these variables, while the remaining 84.9% is influenced by other factors not included in this study.

C. SUGGESTIONS

Research related to stock prices and capital structure in the future is expected to generate higher quality findings. To achieve this, the following recommendations can be considered:

1. Expanding the research population – Future studies are encouraged to broaden the scope beyond property and real estate companies by including other sectors such as finance, transportation and logistics, as well as mining. A larger and more diverse sample will provide more representative results and allow findings to be compared across different industries.
2. Incorporating additional variables – To build a more comprehensive research model, future studies are advised to include other factors that may influence capital structure, such as profitability, asset growth, cash flow, or managerial ownership. The inclusion of these variables can enrich the analysis and offer deeper insights into the determinants of capital structure.

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