CAPITAL STRUCTURE OF ISLAMIC BANKS IN INDONESIA A PECKING ORDER THEORY PERSPECTIVE

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Abstract

This study aims to analyze the factors influencing the capital structure of Islamic banks in Indonesia. The research data was obtained from the financial reports of Sharia-based banks during the 2019-2023 period, which were uploaded on the official website www.idx.com. This study examines the effect of profitability (X1), sales growth (X2), and liquidity (X3) on capital structure using the panel data regression method. Based on the panel data estimation method, it was found that the Fixed Effects Model (FEM) is the most appropriate and shows that the three variables simultaneously influence capital structure decisions, with a significance value of 0.000 (less than 0.05). The implication is that corporate financial managers need to consider profitability, liquidity, and earnings growth before making financing-related policies. These three factors work simultaneously, ultimately determining how optimally banks and companies can benefit from each other—from efficient financing to controlled risk. A well-planned financing policy will ensure maximum benefits for all parties involved.

Keywords: *Pecking Order Theory, Capital Structure, Liquidity, Profitability, Sales Growth*

Abstrak

Penelitian ini bertujuan untuk menganalisis faktor-faktor yang memengaruhi struktur modal pada bank syariah di Indonesia. Data penelitian diambil dari laporan keuangan pada bank berbasis syariah selama periode 2019-2023 yang diunggah melalui situs resmi www.idx.com. Penelitian ini menganalisis pengaruh profitabilitas (X1), pertumbuhan penjualan (X2), dan likuiditas (X3) terhadap struktur modal menggunakan metode regresi data panel. Berdasarkan metode estimasi data panel, didapati bahwa FEM paling sesuai digunakan dan menunjukkan bahwa ketiga variabel secara simultan memengaruhi keputusan struktur modal dengan nilai signifikansi sebesar 0,000 (lebih kecil dari 0,05). Impliksinya manajer keuangan perusahaan perlu memperhatikan profitabilitas, likuiditas dan pertumbuhan laba sebelum melakukan kebijakan yang terkait dengan pendanaaan. Ketiga faktor ini bekerja secara simultan yang pada akhirnya akan menentukan seberapa optimal bank dan perusahaan bisa saling mendapatkan manfaat—dari sisi pendanaan yang efisien hingga risiko yang terkendali. Kebijakan pendanaan yang tepat akan memastikan keuntungan maksimal untuk semua pihak yang terlibat.

Kata Kunci: *Pecking Order Theory, Struktur Modal, Likuiditas, Profitabilitas, Pertumbuhan Penjualan*

Introduction

Capital structure is an important issue for every company and receives special attention because the company's financial position is influenced by the effectiveness of its capital structure. Companies tend to prioritize the interests of the business owners and

shareholders (Nasrah & Resni, 2020). The capital structure aims to determine the appropriate proportion of the combination of funding sources used in order to maximize the company's value. The combination of funding sources is divided into two types: equity from within the company and equity from outside the company. Equity from within the company refers to internal funds in the form of retained earnings, while equity from outside the company refers to external funds in the form of debt.

Capital structure in a company becomes one of the main considerations for potential investors when investing their funds. A good capital structure is reflected in the balance between equity and debt composition. The higher the use of debt, the greater the risk faced by the company, but the expected return also increases. The company's stock price tends to decrease if the risk faced by the company rises due to the use of debt, but the stock price will increase if the expected return also rises (Fadilah, 2015). Capital structure is defined as the ratio of debt (foreign capital) to equity (own capital) (Pramukti, 2019). Directly, capital structure decisions will affect the company's condition and value, as well as determine the company's ability to survive and grow.

Based on a review of previous literature, inconsistent results have been found regarding the variables tested for factors influencing the capital structure, indicating a research gap. Several studies show that capital structure is significantly affected by profitability (Fadilah, 2015)(Wahyuni & Dwi, 2020), while other studies (Milansari et al., 2020)(Murni, 2017) indicate otherwise. The researcher also observed the results of studies on the capital structure concerning liquidity and growth factors, with inconsistencies noted in the research conducted by (Nasrah & Resni, 2020), (Pramukti, 2019), (Wahyuni & Dwi, 2020), (Milansari et al., 2020), dan (Murni, 2017). The inconsistency in previous research findings is due to differences in the business sectors studied and the variation in research time frames.

Capital structure is a crucial element in the banking industry. Banks have unique characteristics compared to non-financial companies, which may lead to differences in the impact of factors influencing their capital structure. Islamic banking continues to grow and develop its capital, income, and assets in a Sharia-compliant manner without involving interest-based systems or elements of usury prohibited in Islam.

The profit-sharing system in every banking activity and operation contributes positively to economic well-being by expanding capital, income, and wealth within society through investments, production, and new business ventures, supported by Islamic bank financing. The activities carried out by Islamic banks are far from speculative practices, hoarding, gharar (uncertainty or deception), or gambling-like business activities. Islamic banking strongly promotes real economic activities while avoiding speculative economic activities that could lead to economic bubbles, which, at some point, may destabilize the economy due to artificial growth.

In 2024, the total assets of Islamic banking, including Islamic Commercial Banks (BUS) and Islamic Business Units (UUS), reached IDR 895.9 trillion. This increase was supported by the growth of financing and the accumulation of third-party funds (DPK) (zonaekonomi.com). Additionally, the number of Islamic banking entities in Indonesia in 2024 consisted of 14 Islamic Commercial Banks (BUS), 18 Islamic Business Units (UUS), and 171 Islamic Rural Banks (BPRS) (bincangsyariah.com). This growth reflects the increasing public interest in banking services that align with Sharia principles, supported by regulatory backing and product innovations offered by the Islamic banking industry in Indonesia.

Based on the explanation above, the author is motivated to conduct research aimed at understanding and analyzing the effects of profitability, profit growth, and liquidity on the capital structure of Islamic banking companies during the observation period of 2019-2023 financial reports.

Pecking Order Theory

In summary, this theory states that: 1) Companies prefer internal financing (funding derived from the company's operations). 2) If external financing is required, companies will issue the safest securities first, starting with bonds, followed by securities with option-like characteristics (such as convertible bonds), and only issuing new shares if the other sources are insufficient. 3) Companies attempt to adjust their targeted dividend payout ratios while avoiding drastic changes in dividend payments. 4) Reluctance to alter dividend policies, coupled with fluctuations in profitability and unpredictable investment opportunities, leads to situations where operating funds may sometimes exceed

investment needs, while at other times they may fall short. If operating funds are insufficient for investment needs, companies will reduce cash balances or sell owned securities.

Many companies adopting this theory prioritize internal funding to avoid external scrutiny from investors. If external funding is pursued, debt is preferred over equity. This preference arises because bond issuance costs are lower than the costs associated with issuing new shares. Issuing new shares may reduce the value of existing shares, and managers are often concerned that issuing new shares will be interpreted negatively by investors, potentially leading to a decline in stock prices.

Capital Structure

Funding issues for public companies involve two aspects: funding sources and the composition of capital after the addition of funds. Additional capital can be sourced either internally, derived from the company's net cash flow from operations, or externally, through the issuance of new shares (rights issue) or obtaining debt from creditors, including financial institutions, banks, or by issuing bonds in the capital market (Mubarok et al., 2020)(Fadilah, 2015).

The subsequent concern is whether the new composition/capital structure remains safe for the company. Capital structure must be carefully considered concerning the potential risks associated with the decisions made. Company owners are highly concerned about these decisions, as they impact the company's performance, ultimately determining the return on the invested capital.

According to Riyanto (as cited in (Wahyuni & Dwi, 2020), capital structure is a permanent financing arrangement reflecting the balance between long-term debt and equity. One of the key financing decisions is determining the capital structure that aims to achieve an optimal balance between long-term debt and equity to maximize the company's value.

Capital structure decisions directly affect the level of risk borne by shareholders and the expected returns or profits. A well-balanced structure can mitigate risks and align shareholder expectations with corporate growth and sustainability.

Profitability

Profitability is a ratio that measures a company's ability to generate profits based on its sales, assets, and equity. Companies with high profitability levels tend to use more debt in their capital structure (Milansari et al., 2020). This is because banks experience increased credit distribution with high returns, allowing them to cover their debt costs to depositors. Additionally, banks with high profitability face a lower risk of bankruptcy.

Brigham and Houston (as cited in Wahyuni & Dwi, 2020) argue that companies with high returns on investments typically use relatively small amounts of debt. This aligns with the pecking order theory, which suggests that managers prefer financing through retained earnings first, followed by debt, before considering equity.

Sales Growth

According to the pecking order theory, growing companies have greater internal funding needs. Rapidly expanding companies will require additional funds to support their business development, leading them to seek larger amounts of capital. Thus, there is a positive relationship between growth rates and corporate debt.

However, (Rahmat & Mirnawati, 2020) argue that debt is negatively related to company growth because highly growing companies can fund their business development through retained earnings. Banks demonstrating increasing productivity, reflected in the rising distribution of credit, can finance their expansion through retained earnings as well. Nonetheless, high growth rates may drive companies to seek larger amounts of external funding (Milansari et al., 2020).

Liquidity

The liquidity ratio is used to measure a bank's ability to meet its short-term obligations when they become due. A bank is considered liquid if it can settle all its debts. In this study, liquidity is measured using the Current Ratio.

Research Methods

This study is descriptive research conducted to determine the value of independent variables, whether for a single variable or more, without making comparisons or establishing relationships between variables (Sugiyono, 2017). Furthermore, Tanjung &

Muliyani (2021) describe descriptive research as a study that provides a clear and detailed explanation of a condition without applying interventions to the object studied. The purpose of descriptive research is to create a systematic, factual, and accurate description or illustration of the facts, characteristics, and relationships among the investigated phenomena.

The object of this research were the banks operating under Islamic principles namely Bank Syariah Indonesia, Bank Tabungan Pembangunan Negara Syariah, Bank Panin Dubai Syariah dan Bank Muamalat. The data collected is quantitative and sourced from secondary data, specifically financial reports available on the www.idx.com for the period of 2019–2023. The data collection technique used in this research is documentation. This phase emphasizes gathering information or data directly related to the issues being addressed.

Operational Definition of Variables

This study involves two types of variables: dependent and independent variables. Dependent Variable: The dependent variable in this research is Capital Structure. Independent Variables: The independent variables are Profitability, Sales Growth, and Liquidity. The operational definitions of the variables are presented in Table 1:

Table 1. Operational Definition of Variables

Variabel	Defenisi	Indikator	Skala
Capital Structure (Y)	The amount of debt and equity used by a company to finance its assets and operations	Capital Structure= $\frac{\text{Total Debt}}{\text{Total Equity}}$	Rasio
Profitability (X1)	A financial ratio that measures a company's efficiency in generating profits from its assets.	Return on Assets $\frac{\text{laba Bersih Sebelum Pajak}}{\text{Total Aset}} \times 100\%$	Rasio
Sales Growth (X2)	Sales growth to measure changes or increases in a company's revenue over time.	Sales Growth = $\frac{\text{Sales t} - \text{Sales t} - 1}{\text{Sales t} - 1}$	Rasio
Liquidity (X3)	Measures a company's ability to meet its short-term financial obligations	Current Ratio = $\frac{\text{Aset Lancar}}{\text{Utang Lancar}} \times 100\%$	Rasio

Data Analysis

The data analysis method used is a panel data regression model, processed using the Eviews version 9 application. The approach taken in the panel data regression analysis includes the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) (Napitupulu et al., 2021). There are two stages carried out to determine the best model to use among these models: Chow Test: This test is conducted to determine the best model between CEM and FEM. Hausman Test: This test is conducted to determine the best model between FEM and REM. A good regression model should produce linear and unbiased estimations (Best Linear Unbiased Estimator).

The panel data model equation used in this research is as follows:

$Y= a+b1x1+b2x2+b3x3+e$

Where:

- Y : Structure
- a : Constant
- b1,b2,b3: Regression coefficients
- x1: Profitability
- x2: Profit growth
- x3: Liquidity
- e: Standard Error

Discussions

The discussion begins with the results of panel data testing through the estimation method determination stage. The first step is the Chow Test, which is conducted to determine whether the Common Effect Model (CEM) or the Fixed Effect Model (FEM) is more suitable for estimating panel data.

Decision-making criteria based on the significance value (probability value):

- If probability value > 0.05, then H_0 is accepted, meaning CEM is more appropriate than FEM.
- If probability value < 0.05, then H_1 is accepted, meaning FEM is more appropriate than CEM.

The Chow Test results are presented in Table 2 below:

Tabel 2. The Chow Test results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	18.056336	(3,12)	0.0001
Cross-section Chi-square	32.438805	3	0.0000

The probability value is 0.0008, which is less than 0.05, leading to the acceptance of H_1. This indicates that the FEM is more suitable than the CEM. Next, the Hausman Test is conducted to select the most appropriate model between FEM and REM for this study.

Decision-making criteria based on the significance value (probability value):

- If probability value > 0.05, then H_0 is accepted, meaning that REM is more appropriate than FEM.
- If probability value < 0.05, then H_1 is accepted, meaning that FEM is more appropriate than REM.

The test results are presented in Table 3 below:

Table 3. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	54,169007	3	0.0000

Table 3 shows that the probability value is 0.000, which is less than 0.05, meaning H_1 is accepted. This indicates that the FEM is more suitable than the REM. Based on the panel data estimation method, it is concluded that the Fixed Effect Model (FEM) is the most appropriate model for this study.

Regression Test Using FEM

Before performing the regression test, a multicollinearity test was conducted to ensure that there is no high correlation between independent variables. According to

(Ghozali, 2005), multicollinearity does not occur if the correlation between independent variables does not exceed 0.90.

Table 4. Multicollinearity Test Results

	X1	X2	X3
X1	1	0.0190	0.7583
X2	0.0190	1	-0.6057
X3	0.7587	-0.0605	1

Table 4 shows that the correlation values between variables range from -0.0605 to 0.7587, which are well below the multicollinearity threshold of 0.90. Therefore, it can be concluded that there is no multicollinearity in this study, allowing the regression test using the Fixed Effect Model (FEM) to proceed.

The results of the regression test are presented in Table 5 below:

Table 5. The Result of FEM Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.447268	2.319632	3.210539	0.0075
X1	-0.152180	0.676907	-0.224816	0.8259
X2	-0.089502	0.469410	-0.190669	0.8520
X3	8.02E-05	0.010901	0.007359	0.9942

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.837866	Mean dependent var	7.162105
Adjusted R-squared	0.756798	S.D. dependent var	10.47202
S.E. of regression	5.164330	Akaike info criterion	6.398738
Sum squared resid	320.0437	Schwarz criterion	6.746689
Log likelihood	-53.78801	Hannan-Quinn criter.	6.457625
F-statistic	10.33544	Durbin-Watson stat	0.760942
Prob(F-statistic)	0.000377		
R-squared	0.938391	Mean dependent var	7.890131
Adjusted R-squared	0.897318	S.D. dependent var	3.840684
S.E. of regression	1.230709	Akaike info criterion	3.552694
Sum squared resid	13.63181	Schwarz criterion	3.890702
Log likelihood	-21.42156	Hannan-Quinn criter.	3.570003
F-statistic	22.84704	Durbin-Watson stat	2.241929
Prob(F-statistic)	0.000058		

Based on the regression test that has been conducted, the regression equation obtained is as follows

Y= 7,447 - 0,152X1 – 0,089X2 + 8,02X3

Hypothesis testing based on the calculated F value shows a significance value of 0.0075, which is less than 0.05, meaning that simultaneously, X1, X2, and X3 have a significant effect on Y.

When examined partially, the calculated F values for each independent variable are as follows:

- X1 (Profitability): 0.825, which is greater than 0.05, meaning that profitability does not have a significant effect on Y.
- X2 (Sales Growth): 0.852, which is greater than 0.05, meaning that profit growth does not have a significant effect on Y.
- X3 (Liquidity): 0.994, which is greater than 0.05, meaning that liquidity does not have a significant effect on Y.

Profitability (ROA) and Capital Structure

Profitability has a coefficient value of -0.152 and a significance value of 0.825, which indicates that this variable does not have a significant or negative effect on capital structure. Companies with higher returns tend to use less debt because the funding needs are internally generated from retained earnings (Wahyuni & Dwi, 2020). Banks with higher profits tend to use less debt. They accumulate their income and use it for operational activities or to finance new projects. This aligns with the pecking order theory, which suggests that managers prefer to use internal financing first (retained earnings) and then debt.

Growth and Capital Structure

Growth has a coefficient value of -0.089 and a significance value of 0.852, indicating that this variable does not have a significant or negative effect on capital structure. According to Ahmad & Abas (2011) dalam (Wahyuni & Dwi, 2020), debt is negatively related to company growth because high company growth can finance its expansion through internal capital. A bank's increasing productivity can be seen from the growing distribution of credit. Therefore, banks can finance their expansion through retained earnings.

Liquidity and Capital Structure

Liquidity has a coefficient value of 8,02 and a significance value of 0,994 indicating that this variable has a positive but not significant effect on capital structure. Theoretically, the liquidity ratio reflects the company's ability to meet its short-term obligations with its current assets. If a bank is to increase lending to the public, it must increase its own capital accordingly. If the bank does not increase its lending, it will lower the Capital Adequacy Ratio (CAR) achieved. A higher CAR indicates a higher level of liquidity, which strengthens the bank's capital structure. Companies prefer a capital structure composition that allows them to meet short-term obligations smoothly by maintaining adequate levels of capital and liquidity reserves. An appropriate capital structure composition requires companies to have sufficient capital to attract investor interest and confidence while also maintaining adequate liquidity levels to withstand any potential liquidity pressure. This is consistent with research conducted by (Muliyani & Marisa, 2024).

Conclusion

Considering the research findings, financial managers in banking institutions, before making decisions related to financing policies, need to take into account factors that may affect the capital structure. This will ensure that, in practice, there will be mutual benefits between the bank and external parties (customers, creditors, or investors). Managers need to consider the profitability variable, as it relates to how much profit the

company expects to generate to ensure the continuity of its operations. Managers will use retained earnings as operational financing and avoid using debt. This helps reduce the company's risk and eliminate bankruptcy costs.

In banking's intermediary function, the liquidity variable needs to be examined. When managers decide to increase lending, the CAR must also be raised to maintain customer trust. By considering these variables, the company can determine the optimal capital structure.

REFERENCES

Fadilah, A. (2015). Pengaruh Struktur Modal Terhadap Kinerja Keuangan Perusahaan : Studi Kasus Pada Perusahaan Sektor Pertambangan Yang Tercatat Di Bursa Efek Indonesia, 2005-2011. *Kajian Ekonomi Dan Keuangan*, *16*(1), 26. https://doi.org/10.31685/kek.v16i1.20

Ghozali, I. (2005). *Aplikasi Analisis Multivariate dengan Program SPSSNo Title*.

Milansari, R., Masitoh, E., & Siddi, P. (2020). Faktor – Faktor Yang Mempengaruhi Struktur Modal Pada Perusahaan Makanan Dan Minuman Di Bei. *Jurnal Akuntansi : Transparansi Dan Akuntabilitas*, *8*(1), 1–10. https://doi.org/10.35508/jak.v8i1.2359

Mubarok, F. K., Mujibatun, S., Murtadho, A., & Furqon, A. (2020). *Proceedings of the first international converence on islamic history and civilization.* (H. H. Kusuma, N. Ahmad, B. Bukhori, N. F. Zaki, & R. Rahim (eds.); Pertama). EAI Publishing.

Muliyani, M., & Marisa, M. (2024). Factors Determining The Capital Structure of Banking Companies Listed On The Indonesian Stock Exchange. *Islamic Banking : Jurnal Pemikiran Dan Pengembangan Perbankan Syariah*, *10*(1), 47–62. https://doi.org/10.36908/isbank.v10i1.1127

Murni, D. (2017). Pengaruh Likuiditas, Risiko Bisnis Dan Profitabilitas Terhadap Struktur Modal Pada Perusahaan Textile Dan Garment Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Riset Akuntansi & Bisnis*, *17*(2), 1–19. Uniel4@yahoo.co.id

Napitupulu, R. B., Simanjuntak, T. P., Hutabarat, L., Damanik, H., Harianja, H., Sirait, R. T. M., & Tobing, C. E. R. L. (2021). Penelitian Bisnis : Teknik dan Analisa Data dengan SPSS - STATA - EVIEWS. *Madenatera*, *1*, 230. https://scholar.google.co.id/citations?view_op=view_citation&hl=id&user=T1nJQ0cAAAAJ&citation_for_view=T1nJQ0cAAAAJ:D03iK_w7-QYC

Nasrah, H., & Resni, N. (2020). Faktor-Faktor Yang Mempengaruhi Struktur Modal Bank Syariah Di Indonesia Tahun 2014-2018. *Jurnal Tabarru': Islamic Banking and Finance*, *3*(2), 281–294. https://doi.org/10.25299/jtb.2020.vol3(2).5881

Pramukti, A. (2019). Faktor -Faktor Yang Mempengaruhi Struktur Modal Perusahaan. *ATESTASI : Jurnal Ilmiah Akuntansi*, *2*(1), 58–67. https://doi.org/10.33096/atestasi.v2i1.194

Rahmat, A., & Mirnawati, M. (2020). Model Participation Action Research Dalam Pemberdayaan Masyarakat. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *6*(1), 62. https://doi.org/10.37905/aksara.6.1.62-71.2020

Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif dan R & D* (25th ed.). Alfabeta.

Tanjung, A. A., & Muliyani. (2021). *Metodologi Penelitian. Sederhana, Ringkas, Padat, dan Mudah Dipahami* (I). Scopindo Media Pustaka.

Wahyuni & Dwi. (2020). Struktur Modal Sektor Perbankan Pada Saat Krisis Keuangan. *Jurnal Bisnis & Manajemen*, *15 No 1*(Struktur Modal Sektor Perbankan), 17–32.