

IMPLICATIONS OF THE EFFECT OF PROFITABILITY AND LIQUIDITY ON CAPITAL STRUCTURE IN MINING COMPANIES IN INDONESIA WITH FIRM SIZE AS MODERATION

Arienda Gitty Ramadani^{1*}

Departemen of Business and Management, Universitas Internasional Batam, Batam,
Indonesia, arienda@uib.ac.id

*Corresponding author

Hesniati²

Departemen of Business and Management, Universitas Internasional Batam, Batam,
Indonesia, hesniati@uib.ac.id

Destiana Safitri³

Departemen of Business and Management, Universitas Internasional Batam, Batam,
Indonesia, destiana@uib.edu

Abstract

Background – Economic growth in Indonesia in 2022 reached 5.31%, which is the highest achievement from 2014. Although Indonesia was hit by the negative impact of the Covid-19 pandemic, the economy in Indonesia continues to show resilience and increasing rapidly. The ideal capital structure is a blend of debt and equity that maximizes firm value through prudent investment choices and enhances the financial and operational performance of the business.

Aim – This research is to determine the impact of internal factors on capital structure. By investigating the moderating effect of business size on the link between profitability and liquidity on capital structure, this study adds to the body of previous work.

Design / methodology / approach – This study employed a quantitative research design, which entails gathering quantifiable numerical data and applying statistical analysis to determine and elucidate the relationship between variables. The study employed secondary data, which was sourced from a company's financial documents. Purposive sampling is used in the study to choose profitable companies. This approach is being employed since the data used in the study are secondary data, which offer more comprehensive and varied data information. Eviews was used to help with the data analysis strategy used in this investigation.

Findings – The hypothesis for the first hypothesis is profitability accepted to have a positive and significant effect on capital structure. Second hypothesis is accepted, and fourth hypothesis is accepted. While the third hypothesis is rejected.

Research implication – According to the research, a 1% improvement in profitability (ROA) can result in a 0.06% reduction in the company's debt, raising earnings and lowering the amount of debt in the capital structure. High liquidity companies typically use their internal profits instead of taking on debt or issuing additional shares. The study's findings imply that firm size may have an impact on the relationship between capital structure and liquidity because larger, more liquid corporations are thought to be more able to pay back their loans.

Limitations – The study acknowledged numerous limitations, including the use of USD exchange rates, which rendered some data meaningless, and the elimination of enterprises with unfavorable financial reports. Just 46 of the 63 profitable mining businesses listed on the IDX were examined in this study. Consequently, the study suggests that more research be done over a longer time period on various organizations or sectors. It also recommends that future research include more independent factors or mediating variables.

Diterima : 16 September 2024

Direview : 2 Desember 2024

Direvisi : 26 Desember 2024

Disetujui : 1 Februari 2025



Keyword : *Capital Structure, Profitability, Liquidity, Firm Size*

Abstrak

Latar Belakang - Pertumbuhan ekonomi di Indonesia pada tahun 2022 mencapai 5,31%, yang merupakan pencapaian tertinggi dari tahun 2014. Keputusan mengenai pendanaan perusahaan berdampak pada kesejahteraan pemangku kepentingan lainnya serta keberlanjutan operasi. Bisnis bertujuan untuk memaksimalkan kekayaan dan keuntungan pemegang saham sambil meminimalkan pengeluaran. Oleh karena itu, manajer atau direktur yang bertugas mencapai tujuan perusahaan harus memiliki struktur modal yang ideal. Struktur modal yang ideal adalah perpaduan antara utang dan ekuitas yang memaksimalkan nilai perusahaan melalui pilihan investasi yang bijaksana dan meningkatkan kinerja keuangan dan operasional bisnis.

Tujuan - Penelitian ini bertujuan untuk mengetahui dampak factor internal terhadap struktur modal sekaligus menginvestigasi efek moderasi dari ukuran perusahaan pada hubungan antara profitabilitas dan likuiditas terhadap struktur modal.

Desain / metodologi / pendekatan - Penelitian ini menggunakan desain penelitian kuantitatif, yang memerlukan pengumpulan data numerik yang dapat diukur dan menerapkan analisis statistik untuk menentukan dan menjelaskan hubungan antar variabel. Penelitian ini menggunakan data sekunder, yang bersumber dari dokumen keuangan perusahaan. Pendekatan ini digunakan karena data yang digunakan dalam penelitian ini adalah data sekunder, yang memberikan informasi data yang lebih komprehensif dan bervariasi.

Temuan - Hipotesis pertama yaitu profitabilitas diterima berpengaruh positif dan signifikan terhadap struktur modal. Hipotesis kedua diterima, dan hipotesis keempat diterima. Sedangkan hipotesis ketiga ditolak.

Implikasi penelitian - Menurut penelitian, peningkatan 1% dalam profitabilitas (ROA) dapat menghasilkan pengurangan 0,06% dalam utang perusahaan, meningkatkan pendapatan dan menurunkan jumlah utang dalam struktur modal. Perusahaan-perusahaan dengan likuiditas tinggi biasanya menggunakan laba internal mereka daripada mengambil utang atau menerbitkan saham tambahan. Temuan penelitian ini menyiratkan bahwa ukuran perusahaan memberikan dampak pada hubungan antara struktur modal dan likuiditas karena perusahaan yang lebih besar dan lebih likuid dianggap lebih mampu membayar kembali pinjaman mereka. Hal ini ditunjukkan adanya hubungan signifikan sebesar 0.0018.

Batasan penelitian - Studi ini mengakui adanya sejumlah keterbatasan, termasuk penggunaan nilai tukar USD, yang membuat beberapa data menjadi tidak berarti, dan tidak memasukkan perusahaan-perusahaan yang laporan keuangannya tidak baik. Hanya 46 dari 63 bisnis pertambangan yang menguntungkan yang terdaftar di BEI yang diteliti dalam studi ini. Oleh karena itu, penelitian ini menyarankan agar lebih banyak penelitian dilakukan dalam jangka waktu yang lebih lama pada berbagai organisasi atau sektor. Penelitian ini juga merekomendasikan agar penelitian di masa depan memasukkan lebih banyak faktor independen atau variabel mediasi.

Kata kunci : Struktur Modal, Profitabilitas, Likuiditas, Ukuran Perusahaan

INTRODUCTION

In 2022, Indonesia's GDP grew by 5.31%, the most since 2014, despite the Covid-19 pandemic's detrimental effects. The economy is expanding quickly and has proven resilient. In 2023, the tightening of interest rates was put on hold to avoid a recession.

However, Candy & Winardy (2018) stated that inflation can cause an increase in company costs which can reduce company profitability and stock returns. Indonesia's economy strengthened throughout all regions, but the mining industry is especially promising because of the rising prices of



mineral commodities (Moegiarso, 2022). The Central Bureau of Statistics (BPS) reports that the mining and quarrying industry increased by 4% in 2021 and contributed 12.22% to the growth of the national economy in 2022. According to the Center of Reform on Economics (Core Indonesia), the mining industry has demonstrated yearly losses, which could result in a 3% fiscal discipline return (APBN deficit) in 2023 and an increase in revenue (Anggraeni, 2022). The capital structure of the mining sector in South Africa is severely challenged, which has an impact on the sector's sustainability and operational effectiveness. In South Africa, a lot of mining businesses have trouble getting enough money for big investment projects because of uneven laws, unclear politics, and investor views of high risk. Because of this, these businesses frequently rely on bank loans, which can result in high interest costs and little financial flexibility—particularly when dealing with turbulent market circumstances and fluctuating commodity prices (Adeodun, 2024).

Decisions on corporate funding have an effect on other stakeholders' well-being as well as the sustainability of operations. Businesses aim to maximize shareholder wealth and profits while keeping expenses to a minimum. Therefore, managers or directors who are in charge of accomplishing company objectives must have an ideal capital

structure. In corporate management, capital structure is crucial because it affects investor returns, liquidity, risk characteristics, cost of capital, future funding sources, and firm valuation. The ideal capital structure is a blend of debt and equity that maximizes firm value through prudent investment choices and enhances the financial and operational performance of the business [4].

The concept of capital structure, which is essential to corporate finance management, was first put forth by Modigliani and Marton in 1985. This idea covers the optimal way to combine loan and equity to increase firm value. However, the process for choosing funding sources has changed over time; presently, in addition to debt burden, the source of finance that best meets the needs of the company is considered. The factors affecting capital structure show how both internal and external factors can have an impact on capital structure decisions. Internal drivers include profitability, liquidity, and firm size. On the other hand, inflation, interest rates, and monetary policy are examples of external forces (Suhardjo et al., 2022)

The phenomenon gives rise to divergent conclusions based on study findings analyzing the influence of liquidity and profitability on capital structure, with company size serving as a moderating factor. This study supports the findings of studies by (Bhawa & Dewi S., 2015) and (Putra &

Sedana, 2019) which show that liquidity significantly improves a company's capital structure. In the meantime, it was discovered by (Anjarwati et al., 2015; Sari & Sedana, 2020; Warsono & Zoeboedi, 2019; Zuhroh, 2019) that the company's capital structure was significantly harmed. According to (Djashan, 2019; Putra & Sedana, 2019; Sari & Sedana, 2020; Warsono & Zoeboedi, 2019), the company's capital structure is significantly positively impacted by profitability. While research is inversely proportional to previous research, (Anjarwati et al., 2015; Bhawa & Dewi S., 2015; Siddik & Chabachib, 2017; Zuhroh, 2019) found that profitability has a significant negative effect on the company's capital structure. However, it is inversely proportional to research conducted by (Dayanty & Setyowati, 2020; Mahdaleta et al., 2016) which found that company size has no relationship to moderate the relationship between financial performance and company value. Profitability has a major detrimental impact on the capital structure of the organization, according to study (Anjarwati et al., 2015; Bhawa & Dewi S., 2015; Siddik & Chabachib, 2017; Zuhroh, 2019), even though the research is inversely proportionate to earlier research. It is, however, inversely correlated with studies by (Dayanty & Setyowati, 2020; Mahdaleta et al., 2016), which discovered that there is no correlation between firm size

and the relationship between financial success and company value.

This study had several goals; first, it sought to assess the association between the capital structure and profitability of mining companies from a developing country, specifically Indonesia. Firm size was utilized to build this connection. Second, to know the relationship about capital structure and liquidity in mining companies and have to moderating with firm size. Furthermore, it also examined the correlation between firm size to profitability and liquidity to respond the question of whether firm size has any impact on the relationship between profitability and liquidity. Indonesia is a country that has the third highest energy transition index in Southeast Asia and is a country that is transitioning to a developed country. Therefore, Indonesia was used as the inspiration for this study.

As previously explained, the aim of this study is to determine the impact of internal factors on capital structure. By investigating the moderating effect of business size on the link between profitability and liquidity on capital structure, this study adds to the body of previous work. The study "Implications of the Effect of Profitability and Liquidity on Capital Structure in Mining Companies in Indonesia with Firm Size as Moderation" is of interest to scholars because of this.

LITERATURE REVIEW

Pecking Order Theory

Pecking order theory assumed that there are two types of capital, namely retained earnings (internal financing) and debt/bonds/shares (external financing). Pecking order theory focuses on the problem of asymmetric information. Pecking order theory explains that companies with high profitability have abundant sources of internal funds. Companies that have sufficient financial slack do not need to issue risk debt or shares to fund their new projects so that information asymmetry problems will not arise. Pecking order theory in this research is used to explain the influence of capital structure with the debt-to-equity ratio (DER) proxy on company financial performance.

Agency Theory

Agency theory which explains that shareholders become principals and management become agents. Agency costs are a correlation between the costs of monitoring management to provide confidence that management is acting consistently in line with the company's contractual agreements with creditors and shareholders. High debt use puts managers under pressure to invest in profitable projects to pay off interest. Therefore, reducing agency costs that relate to managers and shareholders can have a positive impact on capital structure. As debt

increases, debt holders will require higher interest rates to balance lower liquidity or investment risks. Based on this, debt can have a negative impact on company performance. So it can be concluded that if a company has large debts and high profits, the parties who benefit are the shareholders, however, if the company experiences a decline or even goes bankrupt, all risks will be borne by shareholders and creditors.

The Relationship Between Profitability and Capital Structure

Mubyarto (2018) found a significant negative effect on capital structure. This study found that profitability (ROA) of 1% was able to reduce the portion of debt borne by the company by 0.06%. Therefore, the profit that will be received by the company will be more and is expected to be able to reduce debt in its capital structure. This research shows that using an optimal capital structure can produce the lowest cost of capital and maximize firm value (Septiani & Suryana, 2018) . Research conducted by (Chandra, 2017; Deviani & Sudjarni, 2018; Margaretha & Zai, 2013; Prastika & Candradewi, 2019) found that profitability has an influence on capital structure. Similarly, research conducted by (Nugroho, 2014) and Liang et al. (2014a) found that profitability has a significant positive effect on the value of the company's capital structure. Sejalan dengan penelitian yang lain-, (Idode et al., 2014;

Nirajini & Priya, 2013; Putra & Sedana, 2019; Safeena & Hassan, 2014) stated that profitability has a positive and significant effect on capital structure. This supports the idea that the greater use of the Company's debt will be tolerated by the Company, if the debts can be used properly and can benefit the Company.

H₁. *Profitability has a significant positive to Capital Structure*

The Relationship Between Liquidity and Capital Structure

The theory known as Pecking Order Theory states that if a company has a strong financial position, it will choose to use its own funds first before seeking external funding for previous projects. The more liquid a company is, the less dependent it is on funding. Why, because short-term debt can be repaid with internal cash. When a company has liquid financial resources, the company's capital structure becomes more liquid, and the company is better able to meet its short-term obligations. Liquidity has a very positive impact on the capital structure of a company, this is proven by previous researchers (Hardanti & Gunawan, 2010; Heliani & K Fadhillah, 2022). With the increasing value of the company's liquidity, it will be easier for the company to raise funds through corporate bonds. Therefore, whenever the liquidity per unit increases, the capital structure also increases. Based on the

analysis and results of previous research, the following hypothesis is obtained.

H₂. *Liquidity has a significant positive to Capital Structure*

The Relationship Between Profitability and Capital Structure with Firm Size as Moderation

A company with consistent and positive financial performance is attractive to creditors and banks because it provides a sense of security and assurance of steady returns on investment. According to a study by Prena & Muliawan (2020), the financial performance measured by Return on Assets (ROA) significantly impacts the value of the company. High financial performance often corresponds to a higher company value, leading to increased borrowing capacity. As the company grows, it can leverage its assets for more investments, thereby enhancing profitability. This positive link between financial performance and corporate leverage is highlighted by (Vithessonthi & Tongurai, 2015) who argue that small and medium-sized companies show a positive relationship between profitability and leverage, while large companies exhibit a negative association. In conclusion, it can be stated that:

H₃. *Profitability has a significant positive to Capital Structure with Firm Size as Moderation Variable*

The Relationship Between Liquidity and Capital Structure with Firm Size as Moderation

Companies with larger business sizes tend to experience increased expenditure to cover the costs of activities in the business. To meet the company's financing needs, large companies usually tend to have several external funds and have access to external financial institutions. Large companies are more likely to use external funding as an option to meet their financial needs (Guna & Sampurno, 2022). According to (Meutia, 2016) Company size measures the size of a company based on the total value of assets, capital, or company sales. Small and medium

enterprises are less diversified than large enterprises. Therefore, the possibility of corporate governance failure and bankruptcy increases. The results of previous researchers Suherman et al. (2019) state that firm size can moderate the effect of liquidity on capital structure while previous researchers (Rosalina & Desti, 2023) state that Firm Size is unable to moderate the positive and significant effect of liquidity on capital structure. Based on the analysis and results of previous research, the following hypothesis is obtained:

H4. *Liquidity has a significant positive to Capital Structure with Firm Size as Moderation Variable*

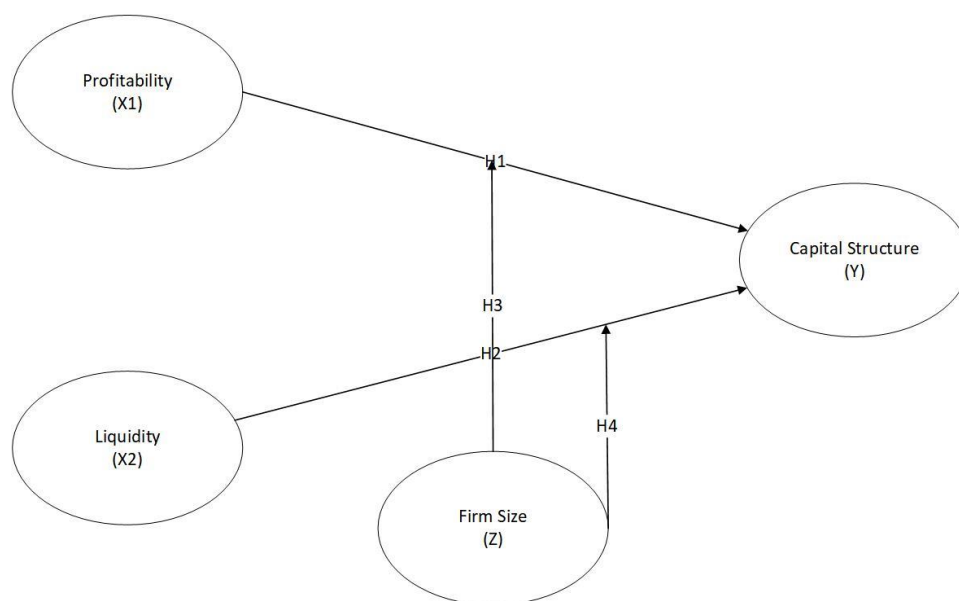


Figure 1. Research Model

RESEARCH METHOD

Design and Type of Research

This study employed a quantitative research design, which entails gathering quantifiable numerical data and applying statistical analysis to determine and elucidate the relationship between variables (Bungin, 2010). The study employed secondary data, which was sourced from a company's financial documents.

Data

This research endeavors to investigate the relationship between profitability and liquidity in the capital structure of Indonesian mining businesses, with a particular emphasis on the impact of the company's size on this relationship. The current problems affecting the mining industry in Indonesia, such as production halts brought on by problems like export suspension, illicit mining, governance concerns, murky policies, and corruption

charges, are the driving force behind the choice of Indonesian mining corporations as the study topics. The mining industry in Indonesia has many intricate issues, which makes it a fascinating and pertinent field of study. Purposive sampling is used in the study to choose profitable companies because these are thought to be the most appropriate for the investigation. The period from 2020 to 2022 is covered by secondary data taken from the financial statements of these companies that are listed on the Indonesia Stock Exchange (IDX). A detailed description of the variable measurement, including the formula for each variable and its source, is given in Table 1, which will be used to analyze the data that has been gathered. Just 46 mining companies with positive profitability were included in the study's sample of Indonesian mining enterprises.

Based on the variables used, the following is a model specification of this study:

$$DER = \alpha + \beta_1 ROA_{it} + \beta_2 CR_{it} + \beta_3 ROA_{it} * SIZE_{it} + \beta_4 CR_{it} * SIZE_{it} + \varepsilon_{it}(1)$$

The variables under investigation are SIZE, which stands for firm size; μ , which represents the error term; β , which is a constant; ROA, which stands for profitability; and CR, which stands for liquidity.

Data Analysis Method

There are various approaches to data analysis, including panel data, cross section, and time series. Panel data regression, which combines time series data with cross section, is the data analysis technique utilized in this study (Sutrisno & Widarjono, 2022) This approach is



being employed since the data used in the study are secondary data, which offer more comprehensive and varied data information.

Eviews was used to help with the data analysis strategy used in this investigation.

Table 1
Variable Measurement

Variable	Code	Formula	Source
Capital Structure	DER	$\frac{\text{Total Liabilities}}{\text{Total Equity}}$	(Hasani et al., 2023)
Profitability	ROA	$\frac{\text{Net Profit}}{\text{Total Assets}}$	
Liquidity	CR	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	
Firm Size	SIZE	$\ln(\text{Total Assets})$	

RESULT AND DISCUSSION

Descriptive Statistics

The findings of the descriptive statistics of the sample variants in the collected data are displayed in the table 2. The tables with the lowest, maximum, mean, and standard deviation are shown in the descriptive statistics below. There are 138 data points in the table below. Table 2 indicates that the capital structure has a minimum value of 0.007427 and a maximum value of 24.848923. The mean and standard deviation values are 1.216357 and 2.347604, respectively. The minimum and highest values of profitability are -0.302318 and 0.614439, respectively. On the other hand, the standard deviation of the whole liquidity data is 0.135939 and the mean is 3.731457.

Panel Data Model Test

Below are some of the tests conducted to find which model is most appropriate to be used in this study, as follows:

Chow-Test

According to the test results, 0.0080 is less than 0.05 based on the cross-section chi-square results that can be seen from the probability. This implies that, in contrast to the Common Effect Model (CEM), the Fixed Effect Model (FEM) is the most appropriate model to apply in this investigation. The Hausman Test must also be used to carry out the test in the following step.

Hausman-Test

Table 4 demonstrates that the random cross-section has a significance level of 0.6781 > 0.05, indicating that the random effect model

is a better fit for this model. The Multiple Langrange test will then be used to continue the test.

Multiple Langrange-Test

It is clear from Table 5's Multiple Langrange test findings that 0.0153 is less than 0.05, according to the Breusch-Pagan cross-section value. This implies that the best model for this investigation is the random effect model. Thus, it can be said that the random effect model is the most appropriate for this study based on the outcomes of the three-panel data regression test.

Panel Data Regression Test

To ascertain whether the dependent variable, capital structure, and the moderating variable, firm size, have a functional connection. The independent variables are profitability and liquidity. Based on this explanation, the following computation outcomes using multiple linear regression can be produced.

Based on the panel data table located above, the multiple linear regression analysis is as follows:

$$\text{Capital Structure (DER)} = 5.347192 - 5.28115(\text{Profitability}) - 1.274186(\text{Liquidity}) - 0.234593(\text{FirmSize}) + 0.063186(\text{FS*Profitability}) + 0.069449(\text{FS*Liquidity})$$

Table 2
 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Capital Structure	138	0,007427	24,848923	1,216357	2,347604
Profitability	138	-0,301218	0,614439	0,069834	0,135939
Liquidity	138	0,269562	204,695010	3,731457	17,402944
Firm Size	138	4,904474	21,018682	13,392109	3,992903
Firm Size * Liquidity	138	2,250389	3757,748298	57,877664	320,052491
Firm Size * Profitability	138	-16,524799	25,466091	1,819061	4,347291
Valid N (listwise)	138				

Source : Analysis output

Table 3
 Chow-Test

Effect Test	Statistics	d.f	Prob.
Cros-Section F	1,831065	(45,87)	0,0080
Cross-section Chi square	91,955260	45	0,0000

Source : Analysis output



Table 4
 Haussman-Test

Test Summary	Chi-Sq. Statistics	Chi-Sq. d.f	Prob
Cross-section random	3,142036	5	0,6781

Source : Analysis output

Table 5
 Multiple Langrange-Test

Test Summary	Test Hypothesis		
	Cross section	Time	Both
Breusch - Pagan	5,878003 (0,0153)	1,501196 (0,2205)	7,379199 (0,0066)

Source : Analysis output

Table 6
 Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	5,347192	1,204497	4,439355	0,0000
Profitability	-5,285115	2,146921	-2,461718	0,0151
Liquidity	-1,274186	0,398865	-3,194528	0,0018
Firm Size	-0,234593	0,076976	-3,047625	0,0028
Firm	0,063186	0,072558	0,870828	0,3854
Size_Profitability				
Firm	0,069449	0,021793	3,186761	0,0018
Size_Liquidity				

Source : Analysis output

Effect Specification	S.D	Rho
Cross - Section random	1,090136	0,2413
Idiosyncratic random	1,933216	0,7587

Source : Analysis output

Weighed Statistic			
Root MSE	1,877369	R-Squared	0,129897
Mean dependent var	0,870172	Adjusted R- Square	0,096939
S.D. Dependent var	2,019964	S.E. of regression	1,919563
Sum square resid	486,3831	F - Statistics	3,941244
Durbin - Watson stat	1,274956	Prob (F-statistics)	0,002308

Source : Analysis output

Table 7.
 Panel Data Regression Test

Variable	Coefficient
C	5,347192
Profitability	-5,285115
Liquidity	-1,274186
Firm Size	-0,234593
Firm Size_Profitability	0,063186
Firm Size_Liquidity	0,069449

Source : Analysis output

Hypothesis Test

Below are some of the tests conducted to find which model is most appropriate to be used in this study, as follows:

F-Test

Table 8 above indicates that the F-count or F-statistic value is 3.941244, and the F-table has an α value of 5%. In this instance, the F-value in the table indicates a likelihood of $0.002308 < 0.05$, indicating that the combination of the independent factors (liquidity & profitability) can have an impact on the dependent variable (capital structure).

Test the Coefficient of Determination

The results of the table 9 show that the R-squared value of 0.129897 is equivalent to 12.98%. So, the independent variables together can affect the dependent variable by 12.98%.

The T-Test

Table 10 presents the findings, which show that the capital structure of the company is significantly impacted by profitability, liquidity, and firm size. Furthermore, firm size influences capital structure and modifies liquidity. The t-test results, however, indicate that the impact of firm size moderating profitability on the capital structure of the business is negligible.

Table 8
 F-Test

Equation	Value
F Statistic	3,941244
Prob F-statistics)	0,002308

Source : Analysis output

Table 9
 R-Square

Equation	Value
----------	-------



R-Squared	0,129897
-----------	----------

Source : Analysis output

Table 10
T-Test

Variable	Coefficient	Std. Error
C	4,439355	0,0000
Profitability	-2,461718	0,0151
Liquidity	-3,194528	0,0018
Firm Size	-3,047625	0,0028
Firm Size_Profitability	0,870828	0,3854
Firm Size_Liquidity	3,186761	0,0018

Source : Analysis output

Table 11
Result of the Hypothesis Test

Hypothesis	Regression Coefficient	Std. Error	Remarks
Profitability has a significant positive to Capital Structure	-5,285115	0,0151	Accepted
Liquidity has a significant positive to Capital Structure	-1,274186	0,0018	Rejected
Profitability has a significant positive to Capital Structure with Firm Size as Moderation Variable	0,063186	0,3854	Accepted
Liquidity has a significant positive to Capital Structure with Firm Size as Moderation Variable	0,069449	0,0018	Accepted

Source : Analysis output

Discussion

Effect of Profitability on Capital Structure

It is clear from the results in the hypothesis table that capital structure is greatly impacted by profitability. The sources (Chandra, 2017; Deviani & Sudjarni, 2018; Margaretha & Zai, 2013; Prastika & Candradewi, 2019) all bolster this. According to the research, a 1% improvement in profitability (ROA) can result in a 0.06% reduction in the company's debt, raising earnings and lowering the amount of debt in the capital structure. According to this study, preserving an ideal capital structure can save

capital costs and increase firm value (Septiani & Suryana, 2018). This lends credence to the pecking theory, which holds that profitable businesses typically take on less debt in order to obtain sufficient finance (Boateng et al., 2022).

Effect of Liquidity on Capital Structure

The test findings show that the significance level is less than 0.05, at 0.0018. As a result, it may be concluded that the hypothesis is valid, and that liquidity significantly degrades capital structure. This result is consistent with the studies of (Hardanti &

Gunawan, 2010; Heliani & K Fadhillah, 2022). Research presented by (Ahmed Sheikh & Wang, 2011; Hardanti & Gunawan, 2010; Liang et al., 2014b) also supports the coefficient value, despite variations from earlier studies, which all found a negative link between liquidity and capital structure. High liquidity companies typically use their internal profits instead of taking on debt or issuing additional shares. The pecking order theory is supported by this research since businesses with high liquidity tend not to use loans. As such, liquidity has a negative and severe impact on a company's capital structure (Boateng et al., 2022).

Effect of Profitability on Capital Structure with Firm Size as Moderation Variable

Table 11 demonstrates that capital structure is not significantly impacted by profitability, which is tempered by business size. This runs counter to the theories or conclusions drawn by (Dayanty & Setyowati, 2020; Margaretha & Zai, 2013), which contends that there is no connection between business size and capital structure profitability moderating; so, the hypothesis is disproved. This is also in line with the results of research from (Gamayanti et al., 2019) where the effect of capital structure on firm value has a significant effect, the greater the capital structure, the greater the firm value.

Effect of Liquidity on Capital Structure with Firm Size as Moderation Variable

According to the data test results shown in Table 11, company size has a positive and significant impact on capital structure and affects the relationship between liquidity and capital structure. This implies that it is possible to accept the hypothesis. These results contradict the conclusions of a research, but they are consistent with (Rosalina & Desti, 2023), which implies that business size can attenuate the impact of liquidity on capital structure. The study's findings imply that firm size may have an impact on the relationship between capital structure and liquidity because larger, more liquid corporations are thought to be more able to pay back their loans. When a business's existing assets are few, it may turn to debt to maintain operations. This choice is consistent with the pecking order theory, which holds that taking on debt becomes the better course of action when retained earnings are insufficient (Septiani & Suryana, 2018).

CONCLUSION

The study concludes that capital structure is significantly impacted by profitability. This suggests that a company's capital structure may see a decrease in debt because of increased profitability. However, the research indicates that there is no discernible impact

of firm size and profitability on capital structure. The study also shows that liquidity significantly and negatively affects capital structure. On the other hand, liquidity has a favorable and substantial impact on capital structure when it is moderated by business size.

IMPLICATION

According to the research, a 1% improvement in profitability (ROA) can result in a 0.06% reduction in the company's debt, raising earnings and lowering the amount of debt in the capital structure. High liquidity companies typically use their internal profits instead of taking on debt or issuing additional shares. The study's findings imply that firm size may have an impact on the relationship between capital structure and

liquidity because larger, more liquid corporations are thought to be more able to pay back their loans.

LIMITATION

The study acknowledged numerous limitations, including the use of USD exchange rates, which rendered some data meaningless, and the elimination of enterprises with unfavorable financial reports. Just 46 of the 63 profitable mining businesses listed on the IDX were examined in this study. Consequently, the study suggests that more research be done over a longer time period on various organizations or sectors. It also recommends that future research include more independent factors or mediating variables.

REFERENCES

- Adeodun, A. (2024). *South African Mining 2024 Outlook: Navigating Challenges and Seizing Opportunities*.
- Anggraeni, R. (2022). *No Title*. Ekonomi.Bisnis.Com.
- Boateng, P. Y., Ahamed, B. I., Soku, M. G., Addo, S. O., & Tetteh, L. A. (2022). Influencing factors that determine capital structure decisions: A review from the past to present. *Cogent Business and Management*, 9(1).
<https://doi.org/https://doi.org/10.1080/23311975.2022.2152647>
- Bungin, B. (2010). *Metodologi Penelitian Kuantitatif : Komunikasi, Ekonomi, dan Kebijakan Publik serta Ilmu-Ilmu Sosial Lainnya* (1st ed.). Kencana.
- Candy, C., & Winardy, A. (2018). Pengaruh Faktor Ekonomi Makro terhadap Stock Return pada Indeks Saham LQ45. *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 65–79.
<https://doi.org/https://doi.org/10.36778/jesya.v2i1.35>



- Chandra, T. (2017). Faktor-Faktor Yang Mempengaruhi Struktur Modal Pada Perusahaan Properti Dan Real Estate Di Indonesia. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 18(4), 507.
- Dayanty, A., & Setyowati, W. (2020). Pengaruh Kinerja Keuangan Dan Struktur Modal Terhadap Nilai Perusahaan Yang Dimoderasi Variabel Ukuran Perusahaan. *Magisma: Jurnal Ilmiah Ekonomi Dan Bisnis*, 8(2), 77–87.
<https://doi.org/https://doi.org/10.35829/magisma.v8i2.88>
- Deviani, M. Y., & Sudjarni, L. K. (2018). Pengaruh Tingkat Pertumbuhan, Struktur Aktiva, Profitabilitas, Dan Likuiditas, Terhadap Struktur Modal Perusahaan Pertambangan di BEI. *E-Manajemen Unud*, 7(3), 1222–1254.
- Djashan, I. A. (2019). The Effect of Firm Size and Profitability on Firm Value with Capital Structure as Intervening Variables in Indonesia. *Journal of International Business, Economics and Entrepreneurship*.
- Guna, M. A., & Sampurno, R. D. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Struktur Modal (Studi Kasus Pada Perusahaan Makanan Dan Minuman Yang Terdaftar Di BEI Periode. *Diponegoro Journal Of Management*, 2(1), 1–13.
- Hardanti, S., & Gunawan, B. (2010). Pengaruh Size, Likuiditas, Profitabilitas, Risiko, Dan Pertumbuhan Penjualan Terhadap Struktur Modal. *Jurnal Akuntansi Dan Investasi*, 11(2), 148–165. <https://doi.org/https://journal.umy.ac.id/index.php/ai/article/view/1080>
- Hasani, Z., Purwidiyanti, W., Rahmawati, I. Y., & Bagis, F. (2023). Influence of Company Internal Factors and Macroeconomics on Capital Structure Moderated by Firm Size. *Asian Journal of Economics, Business and Accounting*, 23(24), 207–216.
<https://doi.org/10.9734/ajeba/2023/v23i241198>
- Heliani, & K Fadhillah, N. H. (2022). Effect of Asset Structure, Company Size, Liquidity, Profitability, and Sales Growth on Capital Structure. *Jurnal Bisnisan : Riset Bisnis Dan Manajemen*, 4(10), 80–92. <https://doi.org/https://doi.org/10.52005/bisnisan.v4i1.120>
- Idode, P. E., Toyin, M. A., Akindele, J. O., & Oyekan, S. A. (2014). Influence of Capital Structure on Profitability: Empirical Evidence from Listed Nigerian Banks. *IOSR Journal of Business and Management*, 16(11).
- Liang, J., Li, L. F., & Song, H.-S. (2014a). An explanation of capital structure of China ' s listed property firms. *Property Management*, 32(1), 4–15.
<https://doi.org/https://doi.org/10.1108/PM-02-2013-0012>
- Liang, J., Li, L. F., & Song, H.-S. (2014b). An explanation of capital structure of China ' s listed property firms. *Property Management*, 32(1), 4–15.
<https://doi.org/https://doi.org/10.1108/PM-02-2013-0012>
- Mahdaleta, E., Muda, I., & Nasir, G. M. (2016). Effect of Capital Structure, Company Size and Profitability on the Stock Price of Food and Beverage Companies Listed on the Indonesia Stock Exchange. *Academic Journal of Economic Studies*, 8(1), 23–29.
<https://doi.org/https://doi.org/10.22610/imbr.v8i1.1192>

- Margaretha, F., & Zai, M. P. (2013). Faktor-Faktor Yang Mempengaruhi Kinerja Keuangan Perbankan Indonesia. *Jurnal Bisnis Dan Akuntansi*, 15(2), 133–141.
- Meutia, T. (2016). Pengaruh Growth Opportunity, Profitabilitas, dan Ukuran Perusahaan terhadap Struktur Modal pada Perusahaan Properti di Bursa Efek Indonesia. *Jurnal Manajemen Dan Keuangan*, 5(2), 603–614.
- Moegiarsa, S. (2022). *Ekonomi Indonesia Tahun 2022 Tumbuh 5,31 Persen*. Ekon.Go.Id.
- Mubyarto, N. (2018). The Influence of Profitability on Firm Value using Capital Structure As The Mediator. In *Jurnal Economia* (Vol. 14, Issue 1). www.idx.co.id
- Nirajini, A., & Priya, K. B. (2013). Impact of Capital Structure on Financial Performance of The Listed Trading Companies in Sri Lanka. *International Journal of Scientific and Research Publications*, 3(5), 1–9.
- Nugroho, N. C. (2014). Analisis Pengaruh Profitabilitas, Pertumbuhan Penjualan, Ukuran Perusahaan, dan Umur Perusahaan Terhadap Struktur Modal Usaha Mikro Kecil dan Menengah Kerajinan Kuningan di Kabupaten Pati. *Management Analysis Journal*, 3(2), 6–10.
- Prastika, N. P. Y., & Candradewi, M. R. (2019). Pengaruh Profitabilitas, Struktur Aktiva, Dan Likuiditas Terhadap Struktur Modal Perusahaan Sub Sektor Konstruksi Bangunan Di BEI. *E-Jurnal Manajemen*, 8(7), 4444–4473.
- Prena, G. Das, & Muliawan, I. G. I. (2020a). Pengaruh Kinerja Keuangan terhadap Nilai Perusahaan dengan Pengungkapan Corporate Social Responsibility Sebagai Variabel Pemoderasi Gine. *Jurnal Akuntansi Trisakti*, 4(2), 245.
<https://doi.org/https://doi.org/10.25105/jat.v4i2.4838>
- Putra, I. G. W. R., & Sedana, I. B. P. (2019). Capital Structure as A Mediation Variable: Profitability and Liquidity on Company Value in Real Estate Companies in Indonesia Stock Exchange. *International Research Journal of Management, IT and Social Sciences*, 6(4), 62–72. <https://doi.org/https://doi.org/10.21744/irjm.v6n4.640>
- Rosalina, D., & Desti, Y. (2023). The Effect Of Growth Opportunity, Profitability, And Liquidity On Capital Structure With Firm Size As A Moderating Variable In Manufacturing Companies Listed On The Indonesia Stock Exchange In 2015-2019. *Jurnal Multidisiplin Dehasen (MUDE)*, 2(3), 473–486.
<https://doi.org/https://doi.org/10.37676/mude.v2i3.4345>
- Safeena, S., & Hassan, M. G. (2014). *Impact of Capital Structure on Profitability: A Study of Listed Manufacturing Companies in The Colombo Stock (Sec) Exchange in Sri Lanka*.
- Sari, I. A. G. D. M., & Sedana, I. B. P. (2020). Profitability and Liquidity on Firm Value and Capital Structure as Intervening Variable. *International Research Journal of Management, IT and Social Sciences*. <https://doi.org/https://doi.org/10.21744/irjm.v7n1.828>
- Septiani, N., & Suryana, L. (2018). Effect of Profitability, Firm Size, Asset Structure, Liquidity, and Growth Opportunity on Capital Structure. *E-Journal of Accounting Udayana University*, 22(3).

- Siddik, M. H., & Chabachib, M. (2017). Pengaruh Roe, Cr, Size, Dan Kepemilikan Institusional Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Intervening. *Diponegoro Journal of Management*.
- Suhardjo, Y., Karim, A., & Taruna, M. S. (2022). Effect of profitability, liquidity, and company size on capital structure: Evidence from Indonesia manufacturing companies. *Diponegoro International Journal of Business*, 5(1), 70–78.
<https://doi.org/https://doi.org/10.14710/dijb.5.1.2022.70-78>
- Suherman, Purnamasari, R., & Mardiyati, U. (2019). MIX: Jurnal Ilmiah Manajemen. *Ilmiah Manajemen*, 9(2), 327–340.
- Sutrisno, S., & Widarjono, A. (2022). Is Profit–Loss–Sharing Financing Matter for Islamic Bank’s Profitability? The Indonesian Case. *Risks*, 10(11), 207.
<https://doi.org/https://doi.org/10.3390/risks10110207>
- Vithessonthi, C., & Tongurai, J. (2015). The effect of firm size on the leverage–performance relationship during the financial crisis of 2007–2009. *Journal of Multinational Financial Management*, 29, 1–29.
- Warsono, & Zoeboedi, F. (2019). Determinasi Nilai Perusahaan dengan Struktur Modal Sebagai Variabel Intervening Pada Perusahaan LQ45 di Indonesia. *Jurnal Riset Bisnis*, 3(1), 37–53.
- Zuhroh, I. (2019). The Effects of Liquidity, Firm Size, and Profitability on the Firm Value with Mediating Leverage. *KnE Social Sciences*.
<https://doi.org/https://doi.org/10.18502/kss.v3i13.4206>