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THE ROLE OF DEBT POLICY AS A MODERATING VARIABLE IN THE INFLUENCE OF PROFITABILITY AND INVESTMENT OPPORTUNITY SET ON FIRM VALUE

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Abstrak

Penelitian ini menggunakan kebijakan utang sebagai variabel moderator untuk mengumpulkan bukti empiris mengenai dampak profitabilitas dan kumpulan peluang investasi terhadap nilai bisnis. Penelitian ini menggunakan pendekatan kuantitatif, yaitu penelitian yang menganalisis data numerik yang telah diproses secara statistik. Untuk periode 2020–2024, perusahaan yang digunakan adalah perusahaan properti dan real estate yang terdaftar di Bursa Efek Indonesia (BEI). Teknik sampling yang digunakan adalah purposive sampling. Ada 52 perusahaan di industri properti dan real estate yang memenuhi syarat. Dengan bantuan IBM SPSS Statistics 24, penelitian ini menggunakan regresi linier berganda, uji asumsi tradisional, uji hipotesis, dan Analisis Regresi Moderat (MRA). Hasil penelitian menunjukkan bahwa kumpulan peluang investasi memiliki dampak yang signifikan dan positif terhadap nilai perusahaan, profitabilitas memiliki dampak yang signifikan dan negatif terhadap nilai perusahaan, dan kebijakan utang tidak dapat meredam dampak dari kedua faktor tersebut. Disarankan agar penelitian di masa depan menggunakan indikator kebijakan utang yang lebih beragam, seperti rasio utang terhadap aset, rasio utang jangka panjang, atau rasio berbasis arus kas, serta memperluas fokus sektor industri untuk mengevaluasi hasil di berbagai sektor.
Kata kunci: Nilai Perusahaan, Kebijakan Utang, Sektor Properti dan Real Estate, Kumpulan Peluang Investasi, dan Profitabilitas.

Abstract

This study uses debt policy as a moderating variable to gather empirical evidence about the impact of profitability and investment opportunity set on business value. This study takes a quantitative approach, which is research that analyzes numerical data that has been statistically processed. For the 2020–2024 timeframe, the companies utilized are real estate and property firms registered on the Indonesia Stock Exchange (IDX). Purposive sampling is the sample technique employed. There are 52 businesses in the real estate and property industry that fit the requirements. With the aid of IBM SPSS Statistics 24, this study makes use of multiple linear regression, traditional assumption tests, hypothesis testing, and Moderated Regression Analysis (MRA). The study's findings indicate that investment opportunity set has a significant and

positive impact on firm value, profitability has a significant and negative impact on firm value, and debt policy cannot mitigate the effects of either of these factors. It is advised that future studies employ a greater variety of debt policy indicators, such as the debt-to-asset ratio, long-term debt ratio, or cash flow-based ratios, and broaden the focus of industrial sectors in order to evaluate outcomes across sectors.
Keywords: Firm Value, Debt Policy, Property and Real Estate Sector, Investment Opportunity Set, and Profitability.

A. INTRODUCTION

High company value often poses a challenge for the property and real estate sector. The property and real estate sector is a crucial sector in the Indonesian economy due to its role in providing infrastructure for housing, offices, and other commercial activities. Besides being an indicator of economic growth, this sector also has a multiplier effect on related industries such as construction, building materials, and financing. The property and real estate sector plays a vital role in the Indonesian economy, but is also vulnerable to economic fluctuations, interest rate changes, and government policies. In general, company value serves as a benchmark for management performance.

Financial performance, including profitability, is one factor that affects a company's worth. The ability of a business to make money off of its resources is referred to as profitability. Return on Equity (ROE), Return on Assets (ROA), and Net Profit Margin (NPM) are often used profitability statistics that give a general picture of how well a business manages its resources to produce profits. Better financial performance is shown by a greater profitability ratio, which shows that the business can efficiently manage capital and assets to produce the highest possible profits.

Other factors influencing company value include operational and growth factors, such as the investment opportunity set. The investment opportunity set reflects a company's growth potential based on feasible investment projects. Companies with a high investment opportunity set typically have numerous profitable investment opportunities, such as business expansion, product innovation, or new market penetration.

Debt policy is a key factor influencing a company's value because it directly impacts the company's capital structure, financing costs, financial risk, and cash flow. Debt policy is crucial because it directly relates to the company's capital structure and the risks it faces. On the one hand, the use of debt can increase a company's value due to tax savings.(Anah et al., 2022)On the other hand, excessive use of debt can increase the risk of bankruptcy and agency costs, which can ultimately reduce the value of the company.(Anah et al., 2022)Therefore, companies must be careful in determining the optimal debt level in order to maximize the company's value.(Suhaibu & Abdul-Malik, 2020).

Commercial property and management company Jones Lang LaSalle Incorporated (JLL) assesses that Indonesia's relatively stable economic growth and high investor confidence will drive growth in the property and real estate sector in Indonesia. This is supported by Indonesia's ranking of 40th globally with a transparency index of 2.81, categorized as semi-transparent in JLL's 2022-2024 Global Real Estate Transparency Index (GRETI) report. This report states that the more transparent a country's property and real estate sector is, the more property investment it will attract. With Indonesia's relatively stable economic growth and high investor confidence, the property and real estate sector in Indonesia reflects the hope for greater transparency in the future.(Ika, 2024).

The real estate market in Indonesia grew by 6% in 2024, indicating healthy growth. The rise in property sales in the Indonesian capital (IKN), which went from 50 to 150 units, is one sign of this. According to the most recent data, investment in the real estate market reached IDR 29.4 trillion in the first quarter (Q1) of 2024, according to Hendra Hartono, CEO of Leads Property. When compared to the same time period in 2023, this number indicates a 6% increase. In comparison to the first quarter of last year, Indonesia's overall investment value grew by 22%. Seven percent of the IDR 401.5 trillion in total national investment came from the real estate industry.(Puspita, 2024)Not all real estate and property businesses, meanwhile, were able to turn a profit in the first half of 2024. In their financial reports, a number of businesses continued to record losses. It should be mentioned that 92 real estate and property businesses are listed on the

Indonesia Stock Exchange (IDX), based on data from the IDX. Fifteen of the property issuers have filed their first-half 2024 financial reports and are listed on the IDX's main listing board. Two of these property issuers, PT Modernland Realty Tbk. (MDLN) and PT Agung Podomoro Land Tbk. (APLN), recorded losses in the first half of 2024, according to the investigation.Laksono (2024).

In the first half of 2024, PT Modernland Realty Tbk. (MDLN) was the property issuer that suffered the biggest loss. In the first half of 2024, the company reported a current period loss of Rp 611.51 billion that was due to the parent entity's owners (net loss). Considering that Modernland Realty still made Rp 92.8 billion in net profit during the same time period in 2023, this is a big drop. Additionally, out of the 15 property issuers on the IDX main listing board, PT Agung Podomoro Land Tbk. (APLN) became the second business to experience a loss. In the first half of 2024, the company reported a net loss of Rp 27.77 billion. In comparison to the net loss of Rp 103.37 billion during the same period in 2023, this result indicates a positive improvement. While some businesses were able to adjust and saw growth, others saw a drop in performance as a result of social constraints and declining purchasing power. This calls into question the elements that allow businesses to endure and even prosper in the face of adversity.Laksono (2024).

Based on previous research showing inconsistent or significant effects on firm value between profitability and investment opportunity set, the researchers retested the effect by adding a moderating variable. The moderating variable used was debt policy. Therefore, this study is expected to find strong evidence regarding the partial impact of profitability and investment opportunity set on firm value, with debt policy as a moderating variable.

THEORETICAL STUDY AND HYPOTHESIS DEVELOPMENT

Agency Theory

Agency theory addresses the conflict of interest between management and shareholders, where debt policy can serve as a control mechanism that limits management's freedom to use

company funds inefficiently. Debt increases pressure on management to act in the best interests of shareholders to meet debt obligations, thereby mitigating agency problems and increasing firm value. A strong profitability and investment opportunity set will more effectively increase firm value if supported by an appropriate debt policy to mitigate conflicts of interest.

Company Values

Company value can also be defined as investors' perception of a company's success, as related to its stock price. A high company value will build market confidence not only in the company's current performance but also in its future prospects. Types of company value ratios include the Price-Earnings Ratio (PER), Price-to-Book Value (PBV), and Earnings Per Share (EPS).

Profitability

Because it shows how effectively resources like capital, labor, and assets are used to create revenue, profitability is a crucial metric for evaluating a company's financial performance. While low profitability may be a sign of inefficiency or competitive challenges, high profitability shows a company's strong competitiveness and competent management.

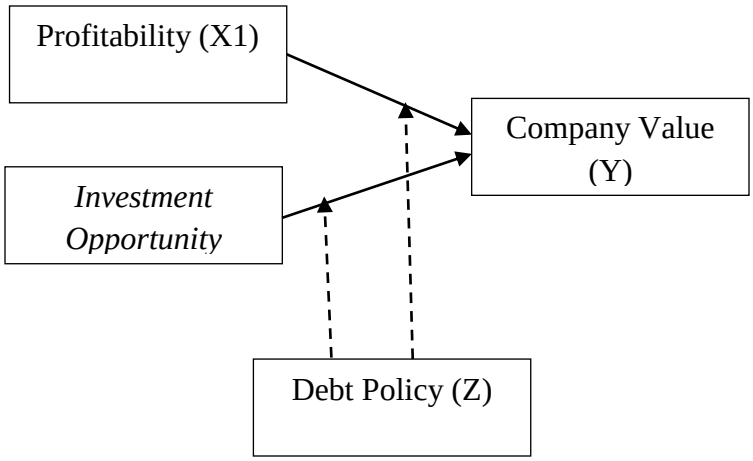
Investment Opportunity Set

Investment opportunity set an investment opportunity set (IOP) represents investment opportunities available to a company to allocate its resources to generate future growth and shareholder value. An investment opportunity set reflects a company's growth potential through investment projects such as business expansion, acquisitions, or product innovation. One way for a company to expand its business scale in the future is through investment.

Debt Policy

Debt policy is a company's strategic decision to determine the optimal capital structure by utilizing external funding sources (debt) rather than equity. This policy reflects a trade-off between the tax shield benefits of debt interest and the risk of financial distress and agency costs.

CONCEPTUAL FRAMEWORK



The following hypothesis can be proposed for this study based on the conceptual framework mentioned above:

H1: Profitability has a positive effect on firm value.

H2: Investment Opportuity Set Has a Positive Influence on Firm Value

H3: Debt Policy Can Moderate Profitability on Firm Value

H4: Debt Policy Can Moderate Investment Opportunity Set on Firm Value

B. RESEARCH METHODS

This research used a quantitative methodology. It made use of secondary data from 2020–2024 real estate and property companies' annual reports. The companies processed the data, which included financial statements and annual reports that were posted on each company's official website as well as the Indonesia Stock Exchange's official website (IDX).www.idx.co.id. Purposive sampling was the sample strategy employed in this investigation. The following criteria were established for this study:

Table 1.1 Sample Selection Criteria

No	Information	Amount
1	Companies in the real estate and property sector that were listed between 2020 and 2024 on the Indonesia Stock Exchange (IDX)	85
2	Businesses that do not release annual reports between 2020 and 2024	(33)
Total Company Sample		**52**
Total Observation Data for 5 Years (... x 5)		**260**

Source: Processed Data (2025)

Operational Definition of Variables

The operational definitions of the variables that will be used in this study are as follows:

Table 1.2 Research Instruments

Variables	Formula	Scale
Profitability (X1)	$ROE = \frac{Laba\ Bersih}{Total\ Ekuitas}$ (Kasmir, 2020)	Ratio
Investment Opportunity Set(X2)	$MBVE = \frac{Harga\ Saham\ Beredar\ x\ Harga\ Penutupan\ Saham}{Nilai\ Buku\ per\ Lembar\ Saham}$ (Putri & Setiawan, 2019)	Ratio
Company Value (Y)	$PBV = \frac{Harga\ Saham\ per\ Lembar}{Nilai\ Buku\ per\ Lembar\ Saham}$ (Putri & Setiawan, 2019)	Ratio
Debt Policy (Z)	$DER = \frac{Total\ Hutang}{Total\ Ekuitas}$ (Nurkomala et al., 2022)	Ratio

C. RESULTS AND DISCUSSION

Descriptive Statistical Analysis Test

Descriptive statistics are used to calculate data that provides a description of the data, which can be seen from the mean (average), standard deviation, maximum, and minimum values. The results of the descriptive statistical analysis of each research variable are explained in the following table:

Table 1.3 Results of Descriptive Statistical Analysis Test

	N	Minimum	Maximum	Mean	Standard Deviation
Profitability	260	-1,089	8,510	,05230	,551868
iOS	260	-19,769	733,325	3.91555	45.480575
Company Values	260	-19,769	240,580	4.92094	27.769333
Debt Policy	260	-55,729	573,706	2.62038	35.739876
Valid N (listwise)	260				

Source: Processed Data (2025)

Classical Assumption Test

Normality Test

The results of the normality test using Kolmogorov-Smirnoff in this study are as follows:

Table 1.4 Normality Test Results

		Unstandardized Residual
N		170
Normal Parametersa,b	Mean	,0000000
	Standard Deviation	2.09879565
Most Extreme Differences	Absolute	,061
	Positive	,061
	Negative	-,045
Test Statistics		,061
Asymp. Sig. (2-tailed)		,200c,d

Source: Processed Data (2025)

The results of the normality test above show that the Asymp Sig. (2-tailed) value is 0.200. The results of the normality test are greater than 0.05. It can be concluded that the research data is normally distributed or has met the normality assumption.

Multicollinearity Test

The following are the multicollinearity test results:

Table 1.5 Multicollinearity Test Results

Model		t	Sig.
1	(Constant)	3,672	,000
	Profitability	1,438	,152
	iOS	,663	,508
	Debt Policy	-1,699	,091
a. Dependent Variable: Abs_RES			

Source: Processed Data (2025)

Based on the results of the multicollinearity test above, it shows that all variables have a tolerance value > 0.10 and a Variance Inflation Factor (VIF) value < 10.00, so it can be concluded that there is no multicollinearity between the independent variables in this study.

Heteroscedasticity Test

The following are the results of the heteroscedasticity test using the Glejser test:

Table 1.6 Heteroscedasticity Test Results

Model	Durbin-Watson
1	2,078
a. Predictors: (Constant), Debt Policy, IOS, Profitability b. Dependent Variable: Company Value	

source: Processed Data (2025)

Autocorrelation Test

If a correlation occurs, it can be assumed that the data is experiencing autocorrelation. Statistical tests can be performed using the Durbin-Watson test to detect autocorrelation and then compared with the DW table. The results of the autocorrelation test are as follows:

Table 1.7 Autocorrelation Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Profitability	,114	8,754
	iOS	,241	4,144
	Debt Policy	,194	5,146
Dependent Variable: Company Value			

Source: Processed Data (2025)

The table above shows that the DW value is 2.078. The number of data (n) is 170. Seen from the Durbin Watson table in the k = 3 section, the dL value is 1.7134 and dU is 1.7851. The provisions taken in this test are dU < DW < 4-dU, meaning there is no autocorrelation. In this study, the value of dU < DW < 4-dU is 1.7851 < 2.078 < 2.2149 so it can be concluded that there is no autocorrelation.

Multiple Linear Regression Analysis

Table 1.8 Results of Multiple Linear Analysis Test

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	-1,189	1,108	
Profitability	-,417	,350	-,256
iOS	1,336	,375	,527
Debt Policy	,109	,446	,040
a. Dependent Variable: Company Value			

Source: Processed Data (2025)

Based on the table above, the regression equation obtained is as follows:

$Y = \alpha + \beta 1X1 + \beta 2X2 + e$

$Y = (-1.189) + (-0.417) + 1.336 + 0.109 + 1.108$

Partial Test (t-Test)

The purpose of the statistical t-test is to determine the extent of influence of the independent variable on the dependent variable individually. The results of the t-test in this study are as follows:

Table 1.9 Partial Test Results (t-Test)

Model	t	Sig.
(Constant)	-1,229	,221
Profitability	-1,479	,141
iOS	3,568	,000
a. Dependent Variable: Company Value		

Source: Processed Data (2025)

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

1) The results of the t-test (partial) show that the significance value of the influence of profitability (X1) on company value (Y) is 0.141 > 0.05 and the calculated t-value is -1.479 < t-table 1.974, so the null hypothesis (H0) is accepted and H1 is rejected, indicating that there is no significant influence of the profitability variable on the company value variable, so it can be concluded that H1 is rejected.

2) There is a significant influence of the investment opportunity set variable on company value, so it can be concluded that H2 is accepted. The results of the partial t-test indicate that the significance value of the influence of investment opportunity set (X2) on company value (Y) is 0.00 < 0.05 and the calculated t value is 3.568 > t table 1.974. As a result, hypothesis 0 (H0) is rejected and H1 is accepted.

Simultaneous Test (F Test)

The following are the findings of this study's f test:

Table 1.10 Simultaneous Test Results (F Test)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	105,452	2	52,726	11,824	,000b
Residual	744,705	167	4,459		
Total	850,157	169			

a. Dependent Variable: Company Value
b. Predictors: (Constant), IOS, Profitability

Source: Processed Data (2025)

As can be shown from the above table, the estimated f is 11.824 > the f table value of 3.183, and the significant value for the impact of profitability (X1) and investment opportunity set (X2) on firm value (Y) is 0.000 < 0.05. This demonstrates that H0 is disproved and H1 is approved. This indicates that profitability (X1) and investment opportunity set (X2) have a major impact on the value of the company.

Moderated Regression Analysis (MRA) Test

Table 1.1 MRA Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1,357	1,136		-1,194	,234
Profitability	-,637	,395	-,391	-1,611	,109
iOS	,558	1,787	,220	,312	,755
Debt Policy	1,852	2,636	,684	,703	,483
X1Z	,000	,004	-,037	-,052	,959
X2Z	-,023	,020	-,355	-1,152	,251

a. Dependent Variable: Company Value

Source: Processed Data (2025)

Based on the table above, it can be seen that the significant value of the interaction variable between the independent variable and the moderating variable (debt policy) is as follows:

1) Given that the significance value of the interaction variable between profitability and debt policy is 0.959 (> 0.05), H3 is rejected, with the conclusion that the debt policy variable is unable to moderate the effect of the profitability variable on firm value. Therefore, this

moderation is classified as a potential moderation type (homologliser) where profitability has no effect on firm value and debt policy is unable to moderate the effect of profitability on firm value.

2) Given that the significance value of the interaction variable between IOS and debt policy is 0.251 (>0.05), H4 is rejected, with the conclusion that the debt policy variable is unable to moderate the effect of the IOS variable on the firm value variable. Therefore, this moderation is classified as a potential moderation type (homologliser) where IOS has no effect on firm value and debt policy is unable to moderate the effect of IOS on firm value.

Coefficient of Determination Test (R2)

Table 1.2Results of the Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	,602a	,362	,351	1.05884
a. Predictors: (Constant), Debt Policy, IOS, Profitability				

Source: Data in IBM SPSS 24 Processing (2025)

Based on the table above, the R-square value is 0.362, or 36.2%. This indicates that the explanatory power of the profitability and investment opportunity set variables on company value, along with debt policy as a moderating variable, is 36.2%, while 63.8% is explained by other variables not examined in this study. The smaller the R-square value, the smaller the influence of the independent variable on the dependent variable. Conversely, if the R-square value is closer to 1, the stronger the relationship between the two.

D. CONCLUSIONS AND SUGGESTIONS

Multiple linear regression results show that while the investment opportunity set has a positive and substantial impact on firm value, profitability has a negative and significant impact. According to the Moderate Regression Analysis (MRA) test results, debt policy cannot mitigate the impact of profitability on firm value in real estate and property enterprises between 2020 and 2024.

Based on the research conducted, there are limitations, namely, its scope is limited to property and real estate companies listed on the Indonesia Stock Exchange during the 2020-2024 period. Therefore, the research results cannot be generalized to other industrial sectors with different business characteristics, funding structures, and risks. Furthermore, the debt policy variable is only measured using the Debt-to-Equity Ratio (DER), which does not necessarily reflect all aspects of a company's funding policy.

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