Profitability, Capital Structure, And Dividend Policy On Firm Value: The Moderating Role Of Firm Size In The Banking Sector

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ABSTRACT

Purpose: *This study investigates the moderating role of company size in the relationship between profitability, financing structure, and dividend policy on the firm value of banking companies.* **Methodology**: *The research employs a quantitative approach using panel data from 23 banking firms listed on IDX Finance over the 2019–2024 period. A fixed effect model with moderated regression analysis is applied to examine interaction effects between company size and key financial variables.* **Results:** *The findings indicate that firm size strengthens the positive influence of profitability on firm value, weakens the relationship between financing structure and firm value, and does not moderate the effect of dividend policy on firm value.* **Novelty:** *This study introduces firm size as a contextual moderator within banking valuation models in an emerging market setting.* **Findings:** *Larger banks experience amplified market sensitivity to profitability, while their capital structure contributes less to valuation compared to smaller banks.* **Originality:** *The originality lies in integrating moderated regression analysis with multi-year banking panel data in Indonesia.* **Conclusions:** *Firm size plays a critical but asymmetric role in shaping how financial decisions affect firm value in the banking sector.* **Type of Paper:** *Empirical Quantitative Research.* **Type of Paper:** *Research Article*

INTRODUCTION

According to studies by Sudrajat & Setiyawati (2021); Wicaksono & Mispiyanti (2020), company value appears unrelated to profitability based on the findings. This statement contradicts the research findings of Hauteas & Muslicah (2019); Yuvia & Wijaya (2023); Nopianti & Suparno (2021), who identified a positive association between profitability and company value. Hauteas & Muslicah (2019); Nopianti & Suparno (2021) reported that capital structure positively influences a company's value. This statement contradicts the findings of Wicaksono & Mispiyanti (2020); Sudrajat & Setiyawati (2021), who identified that the determining factor in shaping a company's value does not include capital structure. Wicaksono & Mispiyanti (2020); Hauteas & Muslicah (2019); Husna & Satria (2019) found that the determining factor in shaping the value of a company does not include dividend policy. Meanwhile, as stated by Margono & Gantino (2021), dividend policy positively

influences a company's value. Sudrajat & Setiyawati (2021); Husna & Satria (2019) found that firm size positively influences company value. Putra, Salim, and Aisjah (2023) found that firm size negatively influences company value. Margono & Gantino (2021) found that the determining factor in shaping a company's value does not include company size. This study was carried out to reexamine the factors influencing firm value by using the banking sector as the main focus because previous research produced inconsistent findings.

Banking is a sector that plays a crucial role and has been recognized as one of the cornerstones of a nation's economic system. Through the provision of financial services like savings and credit, these institutions serve as intermediaries linking parties with excess funds to those requiring additional funds. This intermediary role not only stimulates investment and consumption but also ensures that resources circulate more efficiently across different layers of the economy. In the context of the global economy, banking companies also play a role in maintaining economic stability and supporting real sector growth.

Given these responsibilities, banks are required to implement more comprehensive and cautious risk management strategies than most non-financial companies. One of the main differences lies in the funding source. While firms in other sectors rely on equity or long term debt, banks secure a considerable share of their funding from public deposits. This heavy reliance makes them more exposed to liquidity fluctuations, credit defaults, and systemic pressures. Therefore, selecting the right capital structure is a challenge, as banks must carefully weigh the potential advantages of generating higher returns against the inherent dangers of financial vulnerability.

According to Myers (1984), the use of external funds will prioritize those with the lowest risk, namely debt, followed by the issuance of hybrid securities and shares. Transactions that increase debt will be received as a negative signal and conversely, transactions that reduce debt levels will be received as a positive signal (Baker & Martin, 2011). As Modigliani & Miller (1958) emphasize in their Proposition II, higher leverage increases the cost of equity due to the financial risk premium, implying that excessive reliance on debt magnifies investor's required returns and the vulnerability of firm value. On the other hand, Jensen (1986) finds that most leverage-increasing transactions are followed by significant positive increases in stock prices, indicating that higher debt levels can be prceived by the market as a credible commitment to discipline managers and enhance firm value.

The establishment of a company is driven by the goal of earning profit, which essentially means increasing the company's value (Hauteas & Muslichah, 2019). Company value is crucial for reflecting an entity's performance and prospects in the market. Such a condition is represented by movements in the company's market price, which is influenced by elements such as economic circumstances, innovation, and shifts in regulation. The value of a company is additionally shaped by its risk profile, investor perceptions, and future growth potential.

From an investor perspective, several internal factors are taken into account before making an investment decision. Profitability is among the most critical, since it demonstrates the company's capacity to derive earnings from its business activities. Company size, which is commonly assessed using total assets, can indicate the bank's strength and stability. Larger companies, particularly in the banking sector are generally considered more stable and capable of absorbing economic shocks compared to the smaller companies. Finally, dividend policies are also viewed as a key determinant of firm value. Lintner (1962) stated that investors show a stronger inclination toward receiving dividend rather than capital gains. Because dividends are fixed and future stock price growth is unpredictable, larger payouts will increase firm value (Baker et al., 2011). Dividend policy represents management's decisions on how profits are allocated to the shareholders, that may shape how the market perceives the company's worth.

METHOD

This study examines variables using a quantitative approach. Quantitative approaches process numerical data and then produce statistical analysis output that can address the

relationships between variables. Secondary data obtained from the official reports of banking companies listed on the Indonesia Stock Exchange (IDX) is used. A causal approach has been implemented in this research to examine cause-and-effect relationships among the variables analyzed.

A total of 47 companies listed on IDX Finance between 2019 and 2024 formed the population for this research. The sampling process utilized a purposive approach , and was selected according to the following considerations:

Sample Criteria	Number of Companies
1. Banks listed before 2019	47
2. Banks that consistently distributed dividends at least once from 2019 to 2024	(24)
3. Banks that were not suspended	(0)
	23

A total of 23 companies met the selection criteria and were therefore included in the sample.

Multiple linear regression analysis is used to conduct the panel data processing in this research combined with the Moderated Regression Analysis (MRA) using Eviews 10. This research use the formulated equation model which presented as follows:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + e \ldots (1)$$

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 Z + e \ldots (2)$$

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 Z + b_5 (X_1*Z) + b_6 (X_2*Z) + b_7(X_3*Z) + e \ldots (3)$$

Firm value, in this research acting as the dependent variable, is approximated using PBV. According to Sudrajat and Setiyawati (2021), PBV indicates the firm's value achieved from invested capital. The PBV ratio serves as an indicator to illustrate how the market appraises the company's competence to derive value from its assets. The independent variable profitability is measured by ROE. The ROE ratio indicates how well a business generates net income using its equity. Capital structure is measured by DER, and dividend policy by DPR. The entirety assets controlled by the company is used to proxy the moderating variable, which is company size.

RESULTS AND DISCUSSION

RESULTS

Panel data analysis requires a model selection test to ensure the chosen model provides accurate outcomes. The Fixed Effect Model (FEM) is the best appropriate for this study, according to the Chow test analysis, with the chi-square probability derived from the cross-sectional data reaching 0.000. Furthermore, using the Hausman Test, the random cross-sectional analysis yielded a probability value equal to 0.0021, leading to the conclusion that FEM represented the best-fitting model.

Descriptive Analysis
Table 1. Descriptive Statistics Analysis

	Minimum	**Maximum**	**Mean**	**Standard Deviation**
Firm Value (Y)	0.427813	8.574566	1.596844	1.421122
Profitability (X1)	-0.341297	0.211653	0.101831	0.068807
Capital Structure (X2)	0.303934	16.07858	5.278332	2.833856
Dividend Policy (X3)	-0.001554	3.574846	0.460496	0.473837

| Firm Size (Z) | 29.03171 | 35.42552 | 32.76179 | 1.639817 |

Source: Processed Data, 2025

In accordance with the findings summarized in the table of descriptive analysis, the lowest company value recorded was 0.4278 whereas the highest reached 8.5746. The mean stood at 1.5968 with a standard deviation of 1.4211, which reflects that the variation between samples is quite large. The average profitability of 0.1018 reflects a positive outcome, which implies that most companies are able to generate profits. Meanwhile, the minimum value shows a negative number, indicating that there are companies that are making losses. Capital structure values ranging between 0.3039 and 16.0786, with the average recorded at 5.2783 and variability shown by a standard deviation of 2.8339. It can be seen that the sample variation is very large between companies that use debt quite aggressively while other companies are more considerate of risk. The lowest recorded dividend policy value is -0.0016, which arises from the existence of firms experiencing financial losses. The size of the company ranges between 29.0317 as the lowest value and 35.4255 as the highest value, with an average size of 32.7618 indicating that the sample consists of companies with a relatively large size.

Classical Assumption Test
Table 2. Multicollinearity Test

	X1	X2	X3	Z
X1	1.000000	0.106420	-0.059177	0.444170
X2	0.106420	1.000000	0.085258	0.361256
X3	-0.059177	0.085258	1.000000	-0.021303
Z	0.444170	0.361265	-0.021303	1.000000

Source: Processed Data, 2025

The table results confirm that multicollinearity is not present, as the correlation coefficients among variables remain below the conventional threshold of 0.8. This indicates that the correlation among the independent variables is relatively weak.

Table 3. Autocorrelation Test

F-statistic	9.705305	Durbin-Watson stat	1.702016
Prob(F-statistic)	0.000000		

Source: Processed Data, 2025

The Durbin-Watson score presented in the table is 1.702, which is close to 2, indicating that the model does not exhibit strong signs of autocorrelation.

Table 4. Heteroskedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.012542	0.012969	-0.967140	0.3365
X1	-0.003569	0.002498	-1.428997	0.1570
X2	5.50E-05	0.000140	0.393142	0.6953
X3	0.000467	0.000247	1.888034	0.0628

| Z | 0.000421 | 0.000398 | 1.057947 | 0.2934 |

Source: Processed Data, 2025

The table results confirmed that every variable's probability value is found to be above the 0.05 threshold, namely 0.1570, 0.6953, 0.0628, and 0.2934, respectively. This indicates that no variable is statistically significant in explaining the residual variance at the 5% significance level. Therefore, it may be inferred that heteroscedasticity is not present in the regression model.

Table 5. Simultaneous Test (F-Statistic Test)

		Prob(F-Statistic)
1st Model	Y=b0 +b1 X1+b2 X2+b3X3+e	0.000000
2nd Model	Y=b0 +b1 X1+b2 X2+b3 X3+b4Z+e	0.000000
3rd Model	Y=b0+b1X1+b2X2+b3X3+b4Z+b5(X1∗ Z)+b6(X2∗ Z)+b7(X3 *Z)+e	0.000000

Source: Processed Data, 2025

The F-statistic probability value for all three models is 0.000, indicating that all three models are significant. This means that the value of a company is influenced simultaneously by profitability, financing structure, dividend policy, and company size.

Table 6. Determination Coefficient Test (Adjusted R2 Test)

		Adjusted R-squared
1st Model	Y=b0 +b1 X1+b2 X2+b3X3+e	0.643976
2nd Model	Y=b0 +b1 X1+b2 X2+b3 X3+b4Z+e	0.687251
3rd Model	Y=b0+b1X1+b2X2+b3X3+b4Z+b5(X1∗ Z)+b6(X2∗ Z)+b7(X3 *Z)+e	0.748135

Source: Processed Data, 2025

According to the first model's Adjusted R-squared value, which reached 64.3976%. It indicated that a company's value is shaped with a contribution of Profitability, Capital Structure, and Dividend Policy simultaneously. It is shown In the second model, that the Company Size variable itself increases the value of the Adjusted R-squared by 4.3275%. Signifying there is a direct impact on Company Value. Furthermore, the third model demonstrated an increase of 10.4159% compared to the first model after adding the interaction between the independent and moderating variables.

Table 7. Partial Test (T Test) - 1st Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.827667	0.728215	1.136568	0.2592
X1	-5.932261	2.311159	-2.566791	0.0122
X2	0.276798	0.131165	2.110309	0.0380

X3	-1.190588	0.231997	-0.821511	0.4139

Source: Processed Data, 2025

Y = 0.8277 - 5.9323X1 + 0.2768X2 - 0.1906X3 + [CX=F]

Table 8. Partial Test (T Test) - 2nd Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-38.27425	11.40691	-3.355357	0.0012
X1	-7.191302	2.196956	-3.273302	0.0016
X2	0.253511	0.123122	2.059021	0.0429
X3	-0.180076	0.217462	-0.828083	0.4102
Z	1.201040	0.349743	3.434068	0.0010

Source: Processed Data, 2025

Y = -38.2743 - 7.1913X1 + 0.2535X2 - 0.1801X3 + 1.2010Z + [CX=F]

Table 9. Partial Test (T Test) - 3rd Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-34.30834	14.27398	-2.403557	0.0187
X1	-136.6199	34.59622	-3.948982	0.0002
X2	7.462852	2.163966	3.448693	0.0009
X3	-6.707988	3.300507	-2.032411	0.0457
Z	1.087232	0.447209	2.431151	0.0175
X1Z	4.025993	1.084716	3.711565	0.0004
X2Z	-0.221555	0.067075	-3.303111	0.0015
X3Z	0.195439	0.102409	1.908412	0.0602

Source: Processed Data, 2025

Y = -34.3083 - 136.6199X1 + 7.4629X2 - 6.7080X3 + 1.0872Z + 4.0260X1Z - 0.2216X2Z + 0.1954X3Z + [CX=F]

DISCUSSION

Based on the first model, the probability value of profitability (X1) is 0.0122 with the coefficient equal to -5.9323. The study's results confirm that the relationship between company value and profitability significantly exist, but this relationship runs in the opposite direction. This means that instead of increasing company value, increasing profitability actually decreases its value. Conversely, when its profitability decreases, the company becomes more valuable to investors. In research conducted by Arif & Ahmad (2025), it was found that high debt usage will result in high profit persistence. This means that profitability can be increased through high debt usage. However,

this can also be interpreted as an unfavorable indication by investors, since it reflects an escalation in the level of risk the company must bear. This is in line with the signalling theory. According to Baker & Martin (2011), transactions that increase debt will be received as a negative signal and conversely, transactions that reduce debt levels will be received as a positive signal. High debt usage will increase company value up to a certain point (Sugianto & Istanti, 2024). Company value will decrease if debt usage is too high.

A coefficient equal to 0.2768 accompanies the probability value of 0.0380 for Capital Structure (X2). With the obtained probability value below the 0.05 threshold, it follows that a company's value is positively and significantly impacted by the capital structure. In other words, as long as the capital structure's debt ratio is properly handled, the value attributed to the company will increase. This study found that companies maintaining an efficient balance of their capital structure's debt are more likely to obtain positive market assessments, given that investors perceive the use of debt as an effective mechanism to finance growth opportunities and improve profitability. This research aligns with studies conducted by Hauteas & Muslicah (2019) and Nopianti & Suparno (2021).

The dividend policy (X3) fails to demonstrate that it affects the value of banking companies significantly, with the obtained probability value above the 0.05 threshold, which is 0.4139. Thus, whether dividends are distributed at a high or low level, such payouts do not exert any meaningful influence toward company value. Fama & French (1998) argue that divicends are frequently found to convey information about firm profitability missed by other measures, making their impact on firm value statistically elusive. In this sense, the non-significant effect of dividend policy in this study reflects the ongoing debate where dividends may not directly determine firm value but rather act as signals of underlying profitability. It can be inferred from this finding that the overall valuation of a company when examined by investors may place greater importance on the other factors rather than the distribution of dividends. This research aligns with studies conducted by Hauteas & Muslicah (2019); Husna & Satria (2019); and Wicaksono & Mispiyanti (2020).

Based on model 3, profitability (X1) significantly influences firm value (Y) through firm size (Z). The probability value arising from the interactions of the independent and moderating variable is 0.0004 with the coefficient equal to 4.0260, indicating that between profitability and company's value, company size acts as a moderating factor that strengthens the linkage between the two variables. This moderating effect shows that more large-scale companies experience a negative bearing of profitability on their company's value than small-scale companies. Based on model 2, company size significantly influences company value. This dual influence confirms that company size functions as a quasi-moderator, meaning that in addition to moderately influencing the interaction of the company value and profitability, company size contributes to the determination of company value directly.

Firm value (Y) is significantly influenced by capital structure (X2) when moderated by firm size (Z). This statement is supported by the results of model 3, where the interaction of the capital structure and firm size produces a probability statistic equal to 0.0015. The coefficient value obtained is -0.2216. It can be interpreted that the effect of capital structure on firm value is weakened through the moderating role of firm size. While an optimal increase in capital structure generally contributes to an improvement in firm value, in larger firms, this positive relationship is less pronounced when contrasted with smaller firms. In shaping the association between firm value and capital structure , firm size serves as a quasi-moderator

The value of the company (Y) is not significantly influenced by dividend policy (X3) when moderated by firm size (Z). This insignificance is reflected in the probability value of 0.0602 obtained from the interaction between dividend policy and company size in model 3, which exceeds the 0,05 threshold. Meaning that differences in firm size neither enhance or lessen the degree of influence exerted by dividend policy on a company's value. In relation to dividend policy and company value, company size serves as a predictor moderator, as it directly affects a company's value but does not function as a true moderator.

CONCLUSION

This study found that profitability significantly affects corporate value in a negative direction. This indicates that while the banking sector experiences increased profitability, it also experiences a decline in value. This is because, although the presence of elevated profitability serves as an indication of a business's ability to derive earnings, it also signals high risks associated with debt usage, which could lead to a decrease in value. Conversely, capital structure has been shown to have an impact on corporate value positively and significantly, which means that firm value can be elevated through the proper and efficient use of debt. Dividend policy, on the other hand, does not play a role in determining company value. Furthermore, the relationship of the company value and profitability is shown to be moderated by company size in a strengthening direction and company value also affects company size directly, acting as a quasi-moderator. In addition, company size has the ability to moderate the interaction of the company value and capital structure, but in a weakening way and acts as a quasi-moderator as it also directly affects company value. However, company size is unable to moderate the relationship between company value and dividend policy, but still acts as a predictor moderator as it directly affects firm value.

These findings suggest that banking managers, particularly in larger institutions should carefully balance their profitability and leverage, as excessive profitability may coincide with higher risk while efficient capital structure management can strengthen firm value. For regulators, the results imply the need to monitor risk-taking behavior in profitable banks and ensure that leverage is used within prudent limits to maintain stability in the financial system. This study is limited by its focus on banking companies listed on IDX Finance sector and by the time frame of observation, which may restrict the generalizability of results. Future research is therefore recommended to conduct comparative analyses across different countries or sectrs, which could provide deeper insights into whether these relationships hold consistently in varying financial and regulatory environments.

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