

Study of Company Size in Moderating The Increase in Firm Value in Non-Cyclical Consumer Businesses at The Indonesia Stock Exchange

ABSTRACT

Aims: Study this is about the firm value, aiming to test company size to moderate the influence of capital structure and profitability on the firm value in business consumer non-cyclical listed on the Indonesia Stock Exchange (IDX).

Study design: The design of this research study is correlational.

Place and Duration of Study: Business consumer non-cyclical listed on the Indonesia Stock Exchange (IDX) issuers in 2018-2022.

Methodology: The research population totalled 122 consumer non-cyclical companies recorded in 2018-2022. The sample was determined based on the purposive method; after the election, there were 66 companies that did not accordingly, so the sample was into 56 companies, with 5 years of observation; the sample was $56 \times 5 = 280$, but after regression, there were 18 data that were an outlier, so sample end is 262. Data in a study is obtained with documentation from the method studies. Data is analyzed using the quasi-model moderation, which was processed with SPSS 24.

Results: The size of the company can moderately influence capital structure and profitability to firm value, but capital structure and profitability are only partially not influential to firm value.

Conclusion: The top-based results of the contribution study support the signalling theory and prove that empirical improvement in the size of a company can moderately influence the capital structure and profitability on increased firm value.

Keywords: capital structure, profitability, size company and firm values

1. INTRODUCTION.

The concept of firm value has long been the attention of finance experts and investors, but there are still contradictory opinions about factors that only influence it. Modigliani and Miller [1] stated that firm value is determined only by a company's ability to profit from a risky business. High firm value becomes investors' wish because, with high-value prosperity, holder shares will increase [2]. However, the empirical results of the ongoing research are contradictory.

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Profitability has a significant positive effect on firm value, as stated by Sitawati et al. [3], Hasanudin et al. [4], Wijayaningsih&Yulianto[5] and Hapsoro&Falih[6]. This positive effect indicates that the firm value will increase if profitability increases. Improvement in profitability gives potential dividends to investors or holder shares, which are responded positively to the market. However,Alghifari et al. [7] put forward a negative significance, whereas Sondakh[8]and Harahap et al. [9] revealed that profitability does not influence firm value.

Besides that, the influence of capital structure on firm value is still contradictory. Sulistiyo et al. [10], Damayanti & Sucipto [11], Margono&Gantino[12], and Budiharjo[13] stated that capital structure influences firm value positively. However, Ibrahim and Isiaka [14] suggested that it is negative, whereas Munawar[15], Butar-butur et al. [16], and Bahri et al. [17] stated that it is not influential.

Research results Santosa [18] revealed that the size of the company moderately influences profitability and capital structure on firm value with direction positive, meaning impact strengthens improvement firm value, as well as Aimomani et al. [19]. However, Alghifari et al. [7] showed that company size moderates the influence of capital structure on firm value with a negative direction, and the size of the company also moderates the impact of profitability towards firm value with a positive direction, not significant.

Size companies are big and small companies that can measured through big and small sales, total assets and equity [2]. The larger the company, the bigger the source of its power [20], so the potential to obtain big income. The company's increased size will respond positively to the market, increasing the firm value[21].

Firm values can be measured with the price book value (PBV) ratio, which compares price share with mark book per sheet share [2]. In this study, we will test the return of the size of the company to moderate capital structure and profitability in increasing firm value. The selected object is a non-cyclical business consumer listed on the Indonesia Stock Exchange that was not affected before or during the COVID-19 pandemic. During the 2018-2022 period, the average PBV was high, as shown in the table following.

Table 1a
Average PBV Development of Consumer Non-cyclical Sector Companies on the Indonesia Stock Exchange 2018 – 2022

Year	Average PBV	Development	
		PBV Difference	(%)
2018	3.61	-	-
2019	3.77	0.16	4.43
2020	3.43	-0.34	-9.02
2021	3.41	-0.02	-0.58
2022	3.62	0.21	6.16

Source: IDX Statistics [22, 23, 24, 25, 26].

The contribution study contributes to theory signalling and provides empirical proof of how to increase firm value by improving a company's size and strengthening the influence of profitability and capital structure on firm value.

2. STUDY LIBRARIES AND DEVELOPMENT HYPOTHESIS

2.1. The influence of capital structure on firm value.

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The capital structure provides signals to influence investors' firm value [27]. The company will use debt. If the company's future prospects are good, then investors will capture the signal so that the firm value will increase. Sulistiyo et al. [10], Damayanti & Sucipto [11], Margono&Gantino[12], and Budiharjo[13] stated that capital structure positively influences firm value. Based on this information, Hypothesis 1 is that capital structure positively affects firm value.

2.2. The effect of profitability on firm value.

Profit gives a positive sign because it is good news for investors, which will impact the firm's value [28]. The company's ability to generate profits from assets and capital owned and at a certain sales level is called profitability [2]. Previous studies have shown that profitability has a significant positive effect on firm value, as stated by Sitawati et al.[3], Hasanudin et al. [4], Wijayaningsih&Yulianto[5] and Hapsoro&Falih[6]. This positive effect indicates that the firm value will increase if profitability increases. Based on the information, Hypothesis 2 is that profitability positively affects firm value.

2.3. The influence of company size on firm value.

Another aspect related to signal theory is the size of the company. Large company size will certainly respond well to the market; the larger the company size, the more positive the signal from investors [21]. Lambey et al. [29] stated that company size significantly positively affects firm value, meaning that if a company's size increases, then firm value will also increase. Research results are in harmony with research by Atiningsih&Izzaty[30], Afridi et al. [31] and Pernata et al. [32]. Based on the information, hypothesis 3 is that company size positively affects firm value.

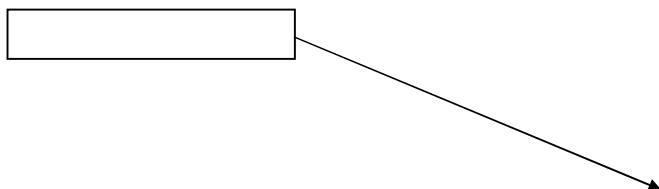
2.4. Size Company moderates the influence of capital structure on firm value.

Size companies that can increase capital structure, reflecting trust creditors towards governance company increase, will be responded to positively by the market so that firm value will increase. Prediction, in accordance with the results of Santosa[18] and Aimomani et al. [19], is that the size of the company moderates the influence of capital structure against firm value with a positive direction, meaning impact strengthens improvement firm value. Based on the information, hypothesis 4 is that the size of the company moderates the influence of capital structure on firm value.

2.5. Size company moderates the effect of profitability on firm value.

Size companies that can increase profit will respond positively to the market so that firm value will increase. Prediction is in accordance with research results. Prediction This is in accordance with the results of Santosa[18] and Aimomani et al. [19], who revealed that size companies moderately influence profitability to firm value with a positive direction, meaning impact strengthens firm value. The top base information, Hypothesis 5, is that the size of the company moderates the effect of profitability on firm value.

On base review of the literature and hypotheses prepared, the research framework is as follows:



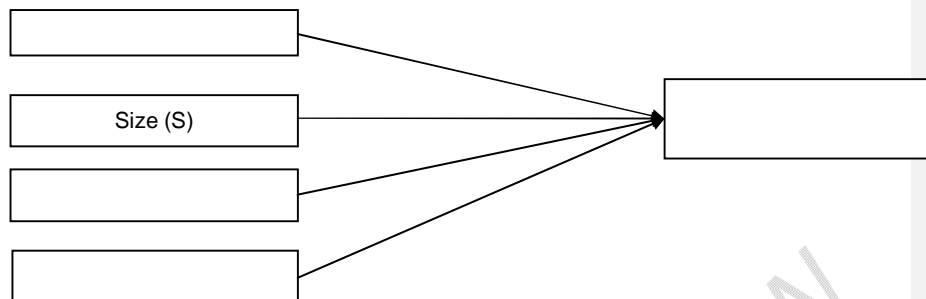


Figure 1
Research Framework
Source: Santosa [18] and Aimomani et al. [19]

3. RESEARCH METHODS.

The data in this study includes quantitative data. This is based on the report statistics on the Indonesia Stock Exchange (IDX) 2018-2022. The population is 122 consumer non-cyclical companies recorded in 2018-2022 [IDX, 22, 23, 24, 25, 26]. The sample was determined based on the purposive method; after done selection, 66 companies not do accordingly, so the sample of 56 companies with 5 years of observation, the amount sample initially $56 \times 5 = 280$, but after done regression, 18 data were an outlier, so sample end is 262. Data in a study is obtained with documentation from method studies. Data is analyzed using the quasi-model moderation with equality multiple linear regression as follows.

$$PBV = \alpha + \beta_1 DER + \beta_2 ROA + \beta_3 S + \beta_4 DER * S + \beta_5 ROA * S + \epsilon$$

Information:

PBV: Price Book Value, namely price share shared mark book in unit [2].

DER: Debt Equity Ratio, ie debt shared equity in percentage [2].

S: Size: company size measured by Ln - assets [6].

ROA: Return on Assets, namely profit clean divided by total assets in percentage [2].

DER*S: DER*Size interaction

ROA*S: ROA*Size interaction

α : constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: regression coefficients

ϵ : standard error

4. RESULTS AND DISCUSSION

4.1. Results of The Classical Assumption Test of Multiple Linear Regression.

a. Normality Test Results.

A good regression model is normally distributed. For that, a normality test is needed. In research, this is done by looking at the results of the histogram graph. If the chart shows all data located inside the curve line, then the data is normally distributed [33]. Figure 2 shows the data in an arch curve, so the data is normally distributed.

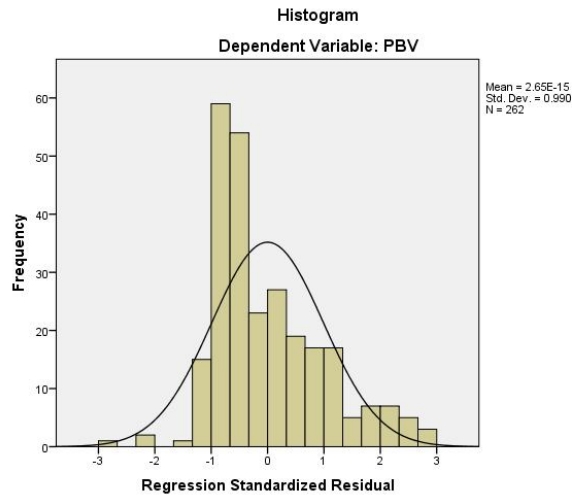


Figure 2. Normality Test Results
Source: Secondary data processed (2024)

b. Heteroscedasticity Test Results.

A good regression model should also be free from problem heteroscedasticity. A regression criterion that is free from heteroscedasticity is if the scatterplot of the points resulting from data processing between ZPRED and SRESID spreads below and above the origin point (number 0) on the Y-axis and does not have a regular pattern [33]. Figure 3 shows the criteria said, and the research data is free from the problem of heteroscedasticity.

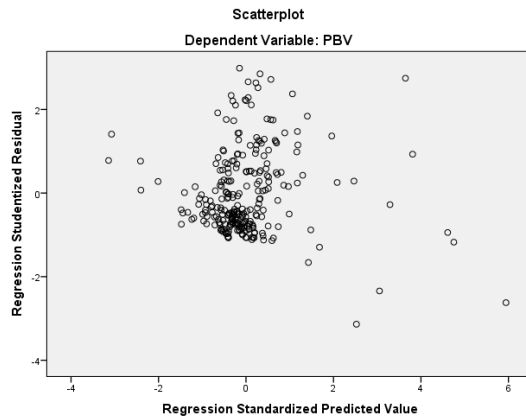


Figure 3. Heteroscedasticity Test Results
Source: Secondary data processed (2024)

c. Autocorrelation Test Results.

A good regression model should also be free from problem autocorrelation. The provision of no autocorrelation problem is if the Durbin-Watson value is between -2 to +2.[34]. Table 1b obtained the Durbin Watson value of 1.826, between -2 and +2, so no autocorrelation problem occurs.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.455 ^a	.207	.191	1.56774	1,826

a. Predictors: (Constant), ROA*S, SIZE, DER*S, ROA, DER
 b. Dependent Variable: PBV

Source: Secondary data processed (2024)

d. Multicollinearity Test Results.

A good regression model should also be free from problem multicollinearity. The multicollinearity test determines the independent regression model from the correlation between independent variables. One method to diagnose the emergence of multicollinearity is by analyzing the tolerance value and variance inflation factor(VIF), an indication that there is no multicollinearity problem if the number $VIF < 10$ and $Tolerance > 0.1$ (Ghozali, 2021). Table 2 shows criteria so that the research data is free from the problem of multicollinearity.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7,839	2,865		2,736	.007		
	DER	-2.245	1.214	-4.417	-1,849	.066	.001	1,613
	ROA	-86,899	30,303	-4.874	-2.868	.004	.001	2,339
	SIZE	-.223	.100	-.193	-2.227	.027	.412	2.426
	DER*S	.085	.042	4.807	2.012	.045	.001	2.463
	ROA*S	3.246	1,059	5.236	3,065	.002	.001	1,610

a. Dependent Variable: PBV

Source: Secondary data processed (2024)

4.2. Model Feasibility Test Results.

The feasibility test aims to determine whether the equality regression results are worthy of use for analyzing the processed data. The feasibility test can be done using statistics F. If the significance F value is smaller than 0.05, then the model is feasible [33]. Table 3 shows a significance F value of 0.000 less than 0.05, so the regression model study is worthy.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	164,001	5	32,800	13,345	.000 ^b
	Residual	629,199	256	2.458		
	Total	793,199	261			

a. Dependent Variable: PBV
 b. Predictors: (Constant), ROA*S, SIZE, DER*S, ROA, DER

Source: Secondary data processed (2024)

4.3. Hypothesis Testing Results and Discussion.

Table 2 shows the results of hypothesis testing using criteria reception sig value less than 0.05 [33] with results as follows:

- a. DER variable or capital structure has a sig value of more than 0.066, bigger than 0.05. It has a negative coefficient of -2,245, meaning capital structure influences negatively, not significantly against PBV, with thus Hypothesis 1 being rejected. The influence negative not significant meaning that the more large capital structure will lower firm value. This can happen when improvement in capital structure will increase interest expense, potentially lower profit. The result of the study was by Munawar [15], Butarbutar et al. [16], and Bahri et al. [17], who stated that capital structure is not influential on firm value.
- b. ROA variable or profitability has a sig value of 0.003, less than 0.05 and has a coefficient negative -86,899, meaning that ROA has negative significance against PBV; thus, Hypothesis 2 is rejected. The greater the ROA value, the greater the decrease in PBV. The relationship logically can be delivered while the increase in profit and no increase in the distribution of dividends to holder shares will then respond negatively to the market, so the PBV will be decreased. Research results in this by Alghifari et al. [7], who stated profitability influential negative significant to firm value.
- c. Size Variable sig value 0.027 less than 0.05 and has a coefficient negative, meaning the company size has an influential negative significance on the firm value (PBV); thus, Hypothesis 3 is rejected. This is meaningful because improving the company's size will precisely lower PBV. Relationship logic that can be delivered when an improvement size proxy company with asset appreciation is invested in non-returnable assets productive, will add load, then will respond negatively by the market, so the PBV will be decreased. Research results in This opposite with Atiningsih & Izzaty [30], Afridi et al. [31] and Pernata et al. [32], who stated that the size company influential positive significant to firm value.
- d. DER*S variable (Interaction DER to Size) has a sig value of less 0.045 than 0.05 and has a coefficient positive 0.085, meaning size company moderates the effect of DER on firm value (PBV); thus, Hypothesis 4 is accepted. That matter is meaningful: a supported capital structure with an optimal size company increases firm value. Research results align with Santosa's research [18] and Aimomani et al. [19].
- e. ROA*S Variable (Interaction ROA against Size) is sig 0.002 less than 0.05 and has a coefficient positive 3.246. It contains the meaning that the size of the company moderates the effect of ROA on firm value (PBV). Thus, Hypothesis 5 is accepted. That means a supported capital structure with an optimal size company increases firm value. Research results This is in line with the research of Santosa [18] and Aimomani et al. [19].

5. CONCLUSION.

Research results show that size companies can moderately influence capital structure and profitability to improve firm value, but firm value can not be partially influenced by capital structure and profitability.

The limitations of this research lie in the type of business studied, namely, only non-cyclical consumer businesses listed on the IDX. So, the results Not Yet Enough represent the whole company in Indonesia. Therefore, the research that will be done can expand the company.

The results of this study contribute to the application of signaling theory by providing empirical evidence of the influence of company size in moderating capital structure and profitability on firm value. They also provide additional references for similar studies in the future. For business practitioners, the results of this study contribute to the policy of increasing firm value through increasing company size.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

- [1] Modigliani, F. and Miller, M.H., (1961). Dividend Policy, Growth and The Valuation of Shares, *Journal of Business*, 34, 411-433. doi:10.1086/294442, <http://dx.doi.org/10.1086/294442>.
- [2] Brigham, E. F., & Houston, J. F. (2015). *Fundamentals of Financial Management*. USA: Cengage Learning.
- [3] Sitawati, R., Ardi, B. K. & Pitoyo, A. (2023). The Moderating Role of Capital Structure in Increasing Company Value. *Asian Journal of Economics, Business and Accounting*, 23(24), 39-46.
- [4] Hasanudin, A. I., Primawresti, R. N. & Lestari, T. (2022). The Influence of Profitability and Liquidity on Company Value with Capital Structure as Moderating Variables. *Journal of Social Science*, 3(2), 237-253.
- [5] Wijayaningsih, S. & Yulianto, A. (2021). The Effect of Capital Structure, Firm Size, and Profitability on Firm Value with Investment Decisions as Moderating. *Accounting Analysis Journal*, 10(3), 150-157.
- [6] Hapsoro, D., & Falih, Z. N. (2020). The Effect of Firm Size, Profitability, and Liquidity on the Firm Value Moderated by Carbon Emission Disclosure. *Journal of Accounting and Investment*, 21(2), 240-257.
- [7] Alghifari, E. S., Solikin, I., Nugraha, N., Waspada, I., Sari, M., & Puspitawati, L. (2022). Capital Structure, Profitability, Hedging Policy, Firm Size, and Firm Value: Mediation and Moderation Analysis. *Journal of Eastern European And Central Asian Research*, 9(5), 789-801.
- [8] Sondakh, R. (2019). The Effect of Dividend Policy, Liquidity, Profitability and Firm Size on Firm Value in Financial Service Sector Industries Listed in Indonesia Stock Exchange 2015-2018 Period. *Accountability*, 8(2), 91-101.
- [9] Harahap, C. D., Juliana, I. & Lindayani, F. F. (2018). The Impact of Environmental Performance and Profitability on Firm Value. *Indonesian Management and Accounting Research*, 17(1), 53-70.
- [10] Sulistiyo, H., Sutono & Manaf, S. (2023). Increasing Company Value in Times of Environmental Uncertainty. *Asian Journal of Economics, Business and Accounting*, 23(23), 169-178.

- [11] Damayanti, R. & Sucipto, A. (2022). The Effect of Profitability, Liquidity, and Leverage on Firm Value with Dividend Policy as Intervening Variable (Case Study on Finance Sector in Indonesian Stock Exchange 2016-2020 Period). *International Journal of Economics, Business and Accounting Research*, 6(2), 863-876.
- [12] Margono, F. P. & Gantino, R. (2021). The Influence of Firm Size, Leverage, Profitability, and Dividend Policy on Firm Value of Companies in Indonesia Stock Exchange. *Copernican Journal of Finance & Accounting*, 10(2), 45-61.
- [13] Budiharjo, R. (2020). Effect of Environmental Performance, Good Corporate Governance and Leverage on Firm Value. *American Journal of Humanities and Social Sciences Research*, 4(8), 455-464.
- [14] Ibrahim, U. A. & Isiaka, A. Q. (2020). Effect of Financial Leverage on Firm Value: Evidence from Selected Firms Quoted on the Nigerian Stock Exchange. *European Journal of Business and Management*, 12(3), 124-135.
- [15] Munawar, A. (2019). The Effect of Leverage, Dividend Policy, Effectiveness, Efficiency, and Firm Size on Firm Value in Plantation Companies Listed on IDX. *International Journal of Science and Research*, 8(10), 244-252.
- [16] Butar-butur, T. T. R., Fachurudin, K. A. & Silalahi, A. S. (2021). Analysis of the Effect of Profitability and Leverage on Firm Value with Dividend Policy as an Intervening Variable in Business Index Companies 27, 2016-2019 Period. *International Journal of Research and Reviews*, 8(2), 264-269.
- [17] Bahri, A. S., Saefullah, K. & Anwar, M. (2022). The Effect of Firm Size and Leverage on Financial Performance and Their Impact on Firm Value in Food and Beverage Sector Companies Listed on The Indonesia Stock Exchange. *Journal of Business Studies and Management Review*, 5(2), 208-214.
- [18] Santosa, P. W. (2020). The Moderating Role of Firm Size on Financial Characteristics and Islamic Firm Value at Indonesian Equity Market. *Business: Theory and Practice*, 21(1), 391-401.
- [19] Aimomani, T. M., Obeidat, M. I. S., Almomani, M. A. et al. (2022). Capital Structure and Firm Value Relationship: The Moderating Role of Profitability and Firm Size Evidence from Amman Stock Exchange. *WSEAS Transactions on Environment and Development*, 18, 1073-1084.
- [20] Choi, B. B., Lee, D. & Psaros, J. (2013). An Analysis of Australian Firm Carbon Emission. *Pacific Accounting Review*, 25(1), 58-79.
- [21] Brau, J. C., & Carpenter, J. T. (2012). Small-Firm Uniqueness and Signaling Theory. *Journal of Business, Economics & Finance*, 1(1), 50-63.
- [22] Indonesia Stock Exchange (IDX)-Data Services Division (2018). *IDX Statistics 2018*.
- [23] Indonesia Stock Exchange (IDX)-Data Services Division (2019). *IDX Statistics 2019*.
- [24] Indonesia Stock Exchange (IDX) -Data Services Division (2020). *IDX Statistics 2020*.
- [25] Indonesia Stock Exchange (IDX) -Data Services Division (2021). *IDX Statistics 2021*.
- [26] Indonesia Stock Exchange (IDX) - Data Services Division (2022). *IDX Statistics 2022*.
- [27] Cuong, N.T. & Canh, N.T. (2012). The Effect of Capital Structure on Firm Value for Seafood Enterprises. *International Research Journal of Finance*, 89, 221-223.
- [28] Komara, A., Ghozali, I., & Januarti, I. (2019). Examining the Firm Value Based on Signaling Theory. *Advances in Economics, Business and Management Research*, Volume 123, 1-4.

- [29] Lambey et al. (2021). The Effect of Profitability, Firm Size, Equity Ownership and Firm Age on Firm Value (Leverage Basis): Evidence from The Indonesian Manufacturer Companies. *Archives of Business Review*, 9(1), 128-139.
- [30] Atiningsih, S. & Izzaty, K. N. (2021). The Effect Firm Size on Company Value with Profitability as Intervening Variable and Dividend Policy as Moderating Variable. *International Journal of Economics, Business and Accounting Research*, 5(4), 378-388.
- [31] Afridi, F. A, Khan, Y., Zafar, S. & Ayaz, B. (2022). The Effect of Firm Size, Investment Opportunity Set, and Capital Structure on Firm Value. *International Journal of Social Sciences and Entrepreneurship*, 2(2), 32-46.
- [32] Pamata, I. K., Elfarsa, K. V, Kencanawati, AAA M, et al. (2023). *International Journal of Business, Economics & Management*, 6(1), 35-40.
- [33] Ghozali, I. (2021). *Application Multivariate Analysis with SPSS Program IBM SPSS 26*. 10th Edition. Semarang: Publishing Agency University Diponegoro.
- [34] Santooso, S. (2017). *Mastering statistics with SPSS 24*. Jakarta: ElexmediaKomputindo.