

An Analysis of the Effect of Capital Structure on Corporate Performance, with Managerial Ownership as a Moderator

Anny Mukminati*, Permata Wulandari

Universitas Indonesia, Indonesia

Email: anny.mukminati@ui.ac.id*, permata.w@ui.ac.id

Keywords:

Capital Structure; Firm
Performance; Managerial
Ownership; Indonesia Stock
Exchange; Panel Data.

Abstract

This study examines the effect of capital structure on corporate financial performance, with managerial ownership as a moderating variable. The research sample consists of 63 public companies listed on the Main Board of the Indonesia Stock Exchange from 2011 to 2022, using panel data analysis. The findings reveal that capital structure has a negative and significant effect on corporate financial performance as measured by return on assets (ROA) and return on equity (ROE), but has no significant effect on Tobin's Q. In addition, managerial ownership does not moderate the relationship between capital structure and ROA; however, it moderates the relationship between capital structure and corporate performance as measured by ROE and Tobin's Q, with the moderating effects varying in direction. These findings imply that the optimal level of debt within a firm's capital structure may depend on managerial ownership and other corporate governance mechanisms, which can influence corporate performance either positively or negatively. This study contributes to the existing literature by providing further insight into the relationship between capital structure and corporate performance, particularly in the Indonesian context. It also highlights the importance of considering managerial ownership and other corporate governance factors when examining the complexity of the capital structure-performance nexus.

INTRODUCTION

Currently, business competition among companies is becoming increasingly intense, requiring companies to improve their performance capabilities in order to remain competitive within their respective industries (Amin et al., 2025; Lubis, 2022; Ning & Yao, 2023; Shahadat et al., 2023; Yu et al., 2025). Corporate performance reflects the effectiveness and efficiency with which a company manages its activities and resources. According to Masa'deh et al. (2018), corporate performance refers to the comparison between actual results and the outputs planned by an organization. In addition, Santos and Brito (2012) argue that performance is part of organizational effectiveness, encompassing both operational and financial outcomes. One measure of corporate performance is a company's ability to generate profits (Hamdani & Suharti, 2022; Jardak & Ben Hamad, 2022). These profits may take the form of gross profit or net profit derived from operational activities. A company's ability to generate profits can also be assessed in relation to the assets and equity employed to produce those profits. Therefore, corporate financial performance is important because it is used to assess and evaluate a company's financial condition over a specific period and to support financial decision-making (Ahirrao et al., 2025; Kara et al., 2024; Olayinka, 2022; Tran Thanh Thuy, 2025; Türegün, 2022). For lenders, a company's financial performance is particularly important because it serves as a parameter for approving or rejecting loan applications. Such information provides

lenders with confidence that the funds provided will be used appropriately and that the company has the ability to repay its obligations according to the agreed terms. For investors, corporate financial performance is also an important consideration when deciding whether to invest in a particular company (Imran et al., 2025; Mioduchowska-Jaroszewicz, 2023; Naeem & Çankaya, 2022; Weston & Nnadi, 2023). Accordingly, this study focuses on evaluating corporate financial performance using return on assets (ROA), return on equity (ROE), and Tobin's Q.

One factor that may also affect corporate performance is capital structure. Capital structure refers to the proportion of debt and equity used as sources of financing to support a company's operations. Le and Phan (2017) and Li, Niskanen, and Niskanen (2018) argue that capital structure reflects the sources of financing used by a company. A company's assets may be financed through a combination of debt and equity. Therefore, it is not surprising that capital structure has become a widely investigated topic over the past decade. As stated by Kartika, Irsad, Setiawan, and Sudiyatno (2023), capital structure policy is important in addressing current business conditions, particularly when many companies experience financial difficulties arising from global economic pressures. Furthermore, capital structure policy represents an important strategic decision for companies facing both domestic and global business competition (Nguyen et al., 2021).

Furthermore, capital structure plays a significant role in determining corporate performance. Corporate performance can be measured using various indicators, including return on assets (ROA), return on equity (ROE), and Tobin's Q. The selection of ROA and ROE is based on previous studies by Jiraporn and Liu (2008) and Zeitun and Tian (2014). In addition, Tobin's Q, as employed in the studies of Driffield, Mahambare, and Pal (2007) and King and Santor (2008), is also an important performance indicator. ROA represents the ratio of net income to a company's total assets, whereas ROE reflects the ratio of net income to total equity. Higher ROA and ROE values generally indicate stronger accounting-based corporate performance. Tobin's Q, on the other hand, is commonly defined as the ratio of a firm's market value to the replacement cost of its assets. Thus, Tobin's Q reflects market-based corporate performance, whereas ROA and ROE represent accounting-based performance.

In the Indonesian context, Ramli, Latan, and Solovida (2019) examined companies in Malaysia and Indonesia over the period from 1999 to 2010. The findings revealed different results between the two countries. In Malaysia, capital structure had a significant effect on corporate performance, whereas in Indonesia, capital structure did not have a significant effect.

The studies mentioned above were developed based on established theories of capital structure. One theoretical foundation is signaling theory, associated with Ross (1977), which proposes that the use of debt can serve as a signal that distinguishes firms with strong performance prospects from those with weaker prospects. Another important theoretical foundation is the theory proposed by Modigliani and Miller (1958), which examines the relationship between capital structure, firm value, and the cost of capital.

Furthermore, in the Indonesian context, data from the 2022 Indonesian Debt Securities Review issued by the Indonesian Securities Pricing Corporation (PHEI) indicate that corporate bond issuance increased over the previous three years, from IDR 89.66 trillion to IDR 153.92 trillion. Corporate debt declined in 2020 before subsequently increasing to a level exceeding that recorded in 2018. High growth in corporate debt may increase companies' exposure to

interest rate risk and exchange rate risk in Indonesia.

Based on previous research findings and the conditions in Indonesia described above, the relationship between capital structure and corporate performance remains an important topic for further investigation. A high proportion of debt in the capital structures of Indonesian companies may increase financial risk and, under certain conditions, encourage inefficient investment decisions, thereby increasing the risk of financial distress and potentially reducing corporate performance. Therefore, an effective corporate governance mechanism is needed to control managerial financing decisions related to capital structure. One such mechanism is managerial ownership, whereby managers, members of the Board of Commissioners, and members of the Board of Directors hold ownership interests in the company.

Furthermore, corporate ownership plays an important role in capital structure decision-making, particularly through the potential moderating role of managerial ownership in the relationship between capital structure and corporate performance. This is consistent with the findings of Wahba (2014), which indicate that managerial ownership has both positive and negative associations with the capital structures of Egyptian companies and may exert both positive and negative effects on the relationship between capital structure and corporate performance.

Thus, managerial ownership may function as a corporate governance mechanism that influences management policies in determining the appropriate capital structure, which may subsequently affect corporate performance.

Although the literature on managerial ownership and corporate performance has grown rapidly, several research gaps remain. Most previous studies, particularly in Indonesia, have tended to focus on the direct relationship between managerial ownership and corporate financial performance without examining managerial ownership as a moderating variable in the relationship between capital structure and corporate performance, as demonstrated in studies by Khafid, Prihatni, and Safitri (2020), Supriadi and Aryati (2022), and Sinaga and Purba (2019). Addressing this gap through a more holistic and context-specific investigation may provide a deeper understanding of the dynamics among capital structure, managerial ownership, and corporate performance, thereby offering more applicable insights for practitioners and corporate decision-makers.

Given the relatively high proportion of debt in the capital structures of Indonesian companies, a robust corporate governance mechanism is essential for controlling managerial financing policies. One such mechanism is managerial ownership, whereby management holds an ownership interest in the company. This ownership structure may align managerial interests with those of shareholders and potentially reduce agency problems. Wahba's (2014) study provides evidence in this regard by demonstrating that managerial ownership has both positive and negative associations with capital structure and affects the relationship between capital structure and corporate performance. Accordingly, managerial ownership may act as a governance mechanism that influences managerial debt policy decisions, which may subsequently affect corporate performance. Addressing the identified research gap through a more holistic and contextual investigation can provide a deeper understanding of the dynamics among managerial ownership, capital structure, and corporate performance, thereby offering richer and more applicable insights for practitioners and decision-makers. The novelty of this study lies in simultaneously examining the direct effect of capital structure on corporate

performance using three different proxies—ROA, ROE, and Tobin's Q—while also testing the moderating effect of managerial ownership on these relationships within the specific context of the Indonesian capital market.

Therefore, this study aims to investigate the effect of capital structure on corporate performance and to examine whether managerial ownership moderates this relationship. More specifically, corporate debt decisions within the capital structure may be influenced by the degree of managerial ownership and shareholder oversight, which can affect management's tendency to use debt to finance corporate investments. These relationships are empirically tested in this study using a sample of companies listed in Indonesia.

METHOD

This study was grounded in a literature review that provided the theoretical basis for developing the research framework. The sample was selected using purposive sampling based on the following criteria: (1) companies listed on the Main Board of the Indonesia Stock Exchange during the 2011–2022 period; (2) companies operating outside the financial and insurance sectors; (3) companies that published financial statements and annual reports for the 2011–2022 period; and (4) companies with positive return on equity (ROE).

The research process began with the identification of companies listed on the Indonesia Stock Exchange during 2011–2022. Companies that did not meet the predetermined criteria were excluded from the sample. After the eligible observations were identified, the research model was specified and analyzed using panel data regression. Multicollinearity and heteroskedasticity tests were subsequently conducted to assess the robustness of the regression model, followed by interpretation of the empirical results.

The research model was developed primarily with reference to Li and Islam (2019), Le and Phan (2017), and Wahba (2014). Li and Islam (2019) examined determinants of capital structure, including market-to-book value (MB), firm size (SIZ), profitability (PRO), and firm growth (GRO), with capital structure measured using the debt-to-equity ratio (DEB). The framework was further adapted from Le and Phan (2017), who examined the relationship between capital structure and corporate performance using ROA, ROE, and Tobin's Q as performance measures, with dividends (DIV) included as a control variable. In addition, Wahba (2014) provided the basis for incorporating managerial ownership as a moderating variable in the relationship between capital structure and corporate performance.

Of the three reference research models, this study uses the following model:

Model 1:

$$ROA_{i,t} = \alpha + \beta_1 DEB_{i,t} + \beta_2 OWN_{i,t} + \beta_3 (DEB_{i,t} \times OWN_{i,t}) + \beta_4 SIZE_{i,t} + \beta_5 GRO_{i,t} + \beta_6 PRO_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 DIV_{i,t} + \beta_9 INS_{i,t} + \beta_{10} HOL_{i,t} + \epsilon_{i,t}$$

Model 2:

$$ROE_{i,t} = \alpha + \beta_1 DEB_{i,t} + \beta_2 OWN_{i,t} + \beta_3 (DEB_{i,t} \times OWN_{i,t}) + \beta_4 SIZE_{i,t} + \beta_5 GRO_{i,t} + \beta_6 PRO_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 DIV_{i,t} + \beta_9 INS_{i,t} + \beta_{10} HOL_{i,t} + \epsilon_{i,t}$$

Model 3:

$$Tobin's Q_{i,t} = \alpha + \beta_1 DEB_{i,t} + \beta_2 OWN_{i,t} + \beta_3 (DEB_{i,t} \times OWN_{i,t}) + \beta_4 SIZE_{i,t} + \beta_5 GRO_{i,t} + \beta_6 PRO_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 DIV_{i,t} + \beta_9 INS_{i,t} + \beta_{10} HOL_{i,t} + \epsilon_{i,t}$$

with $i=1, 2, 3, \dots, N$ is each Bank and $t=1, 2, 3, \dots, T$ is the year.

Description:

Dependent Variables (Company Performance)

LONG = Ratio *Net Income* to the company's Total Assets *i* pada periode *t*

ROE = Ratio *Net Income* against *Total Equity* Company *i* pada periode *t*

Tobin's Q = The ratio of the market value of a company's tangible assets to its replacement costs (*replacement cost* *São Paulo i* pada periode *t*

Independent Variables (Capital Structure)

DEB = Racing *Total Debt* against the company's equity *i* pada periode *t*

Moderation Variables

OWN = Managerial ownership is expressed as the percentage of managerial ownership of the company's total outstanding shares *i* pada periode *t*

Variable Control

SIZ = Logarithm Natural Total Assets of the company *i* pada periode *t*

LIQ = Ratio of current assets to current debt of the company *i* pada periode *t*

GRO = Growth in operating income (*revenue* *São Paulo i* pada periode *t* Compared to the Company's Revenue *i* pada periode *t* -1

FOR = Racing *Earnings Before Interest and Taxes* (EBIT) to the company's total revenue *i* pada periode *t*

DIV = Dividend per share of the company *i* pada periode *t*

e = Error in regression

RESULTS AND DISCUSSION

After applying the research data criteria and sample selection with *purposive sampling techniques*, it can be concluded that 756 sets from 63 companies in Indonesia have been obtained in the 2011-2021 research period. The data obtained is a balanced panel data where the cross-sectional unit has the same number of time series observations. Furthermore, data processing was carried out by the panel data regression method with the Eviews12 software.

Furthermore, regression of panel data was carried out in this study using *Eviews12 software*. The regression process is carried out starting with the selection of the best model so that the estimation process produced by this study provides more precise results. The selection of the best model is carried out through the chow test, thirst test and multiple lagrange test. The model selection test is used to select a model between *a common effect model*, *a fixed effect model*, and *a random effect model*.

Table 1. of Chow Test Results

Model	Pendekatan	Probability	Conclusion
1	EMF / FEM	0,0000**	FEM
2	EMF / FEM	0,0000**	FEM
3	EMF / FEM	0,0000**	FEM

Significance level at alpha 1%

** Significance level at alpha 5%

* Significance level at alpha 10%

Source: Researcher, 2023

From the results of the Chow test, which shows a probability value of 0.000 for the three models. With a probability value lower than the significance level (α) of 0.05, so the null

hypothesis (H_0) is rejected. Thus, it can be concluded that the fixed effects model is more appropriate than the general effects model.

Table 2. of Results of Hausman Test Analysis

Model	Pendekatan	Probability	Conclusion
1	REM / FEM	0,0000**	FEM
2	REM / FEM	0,0000**	FEM
3	REM / FEM	0,0000**	FEM

Significance level at alpha 1%

** Significance level at alpha 5%

* Significance level at alpha 10%

Source: Researcher, 2023

Next, the Hausman test was carried out. The Hausman test probability result obtained for the three models is 0.000. With a probability value lower than the significance level (α) of 5%, the null hypothesis (H_0) is rejected. Thus, it can be concluded that the fixed effects model is more suitable than the random effects model.

After performing the Chow test and the Hausman test, they both showed that the effect model remains the best model, so there is no need to perform the Lagrange Multiple test because the test is used to select a random effect model or a general effects model. The next stage is to carry out a classical assumption test. Classical assumption testing is used to verify that the best model that has been selected meets the BLUE (*Best Linear Unbiased Estimators*) assumptions. In the context of this study, classical assumption tests were carried out, including multicollinearity tests and heteroscedasticity tests.

The importance of multicollinearity testing lies in the evaluation of the presence of significant dependencies between independent variables in a regression model. The relationship between variables can be tested through the application of the Pearson correlation test. The correlation relationship is reflected on a scale of 0 to 1, and if the correlation value exceeds 0.85, it can be concluded that the relationship between the variables is very strong. If a strong correlation is found, the first difference approach can be applied when integrating variables into the regression model. This strategy, as described in Burt's (1987) research, aims to reduce the impact of multicollinearity. Based on the above results, all X variables and controls are free from multicollinearity.

Furthermore, heteroscedasticity testing is used to determine whether the variation of error in the regression model is unstable along the range of values of independent variables. In this case, FEM assumes that the variability of error is homoskedastic. Positive heteroscedasticity test results may indicate that these assumptions are not met, and corrective or remodeling measures may be necessary.

According to Napitupulu (2021), the problem of heteroscedasticity in independent variables will appear if the residual values of independent variables are outside the range of -500 to 500 values. The results of the analysis show that independent variables in the entire model are free from heteroscedasticity.

Furthermore, a hypothesis analysis of the regression results was carried out using the best model based on the previous test, namely *the fixed effect model*. Detailed information on the test results for these three main models can be found in the following table of regression results.

Table 3. Model 1 Regression Results Table

Dependent Variable: ROA				
Method: Panel Least Squares				
Date: 12/03/23 Time: 04:32				
Sample: 2011 2022				
Periods included: 12				
Cross-sections included: 63				
Total panel (balanced) observations: 756				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	78,74271	71,21789	1,105659	0,2693
DEB	-2,758606	0,517524	-5,330392	0,0000**
OWN	-3,390079	10,24265	-0,330977	0,7408
INQUISITION	17,93160	20,27582	0,884383	0,3768
SIZE	-2,101224	0,274968	-7,641707	0,0000**
LIQ	-0,108046	0,116794	-0,925094	0,3552
GRO	0,034799	0,007424	4,687254	0,0000**
FOR	50,55567	2,245929	22,50992	0,0000**
DIV	0,006983	0,002376	2,939371	0,0034**
INS	1,932727	1,493020	1,294509	0,1959
WHERE	-971,5235	1468,870	-0,661409	0,5086
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0,859309	Mean dependent var		9,186800
Adjusted R-squared	0,844477	S.D. dependent var		6,764509
S.E. of regression	2,667677	Akaike Info Criterion		4,891868
Sum squared resid	4860,570	Schwarz criterion		5,338756
Log likelihood	-1776,126	Hannan-Quinn criter.		5,064000
F-statistic	57,93882	Durbin-Watson stat		1,030389
Prob(F-statistic)	0,000000**			
Significance level at alpha 1%				
** Significance level at alpha 5%				
* Significance level at alpha 10%				

Source: Researcher, 2023

Model 1 is a measure of the influence of capital structure on the company's performance as defined by ROA as well as the moderation effect of corporate ownership. From the table, it is presented with an R^2 value of 85.23% and an *adjusted* R^2 of 84.44%. The F-Stat value is 57.9388 and the probability of the F-value is 0.0000. Significant values ($\alpha < 5\%$) indicate that the DEB, SIZE, DIV, GRO, and PRO variables affect ROA. Meanwhile, other variables are not significant to ROA.

Table 4. Model 2 Regression Results Table

Dependent Variable: ROE				
Method: Panel Least Squares				
Date: 12/03/23 Time: 04:32				
Sample: 2011 2022				
Periods included: 12				
Cross-sections included: 63				
Total panel (balanced) observations: 756				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	121,8358	133,5096	0,912562	0,3618
DEB	-2,451733	0,971487	-2,523692	0,0118**
OWN	-46,01962	19,21393	-2,395118	0,0169**
INQUISITION	97,37506	38,01675	2,561373	0,0106**

SIZE	-9,664039	4,935029	-1,958254	0,0506**
LIQ	-0,905884	0,218971	-4,137002	0,0000**
GRO	0,066878	0,013923	4,803312	0,0000**
FOR	82,59309	4,218150	19,58041	0,0000**
DIV	0,011130	0,004453	2,499220	0,0127**
INS	-1,607745	2,799084	-0,574383	0,5659
WHERE	-971,5235	1468,870	-0,661409	0,5086
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0,785743	Mean dependent var	17,02694	
Adjusted R-squared	0,762809	S.D. dependent var	10,26775	
S.E. of regression	5,000628	Akaike Info Criterion	6,149760	
Sum squared resid	17054,29	Schwarz criterion	6,602769	
Log likelihood	-2250,609	Hannan-Quinn criter.	6,324249	
F-statistic	34,26145	Durbin-Watson stat	1,145701	
Prob(F-statistic)	0,000000			
Significance level at alpha 1%				
** Significance level at alpha 5%				
* Significance level at alpha 10%				

Source: Researcher, 2023

Model 2 measures the influence of capital structure on the company's performance as expressed with *ROE* and the moderation effect of corporate ownership. From the table, the *R²* value is presented as 78.57% and the *adjusted R²* is 76.28%. The *F-Stat* value is 34.26145 and the *probability* of the *F-value* is 0.0000. Significant values ($\alpha < 5\%$) indicate that the variables *DEB*, *OWN*, *OWNDEB*, *SIZ*, *LIQ*, *DIV*, *PRO* and *GRO* affect *ROE*. Meanwhile, other variables are not significant to *ROE*.

Table 5. Model 3 Regression Results Table

Dependent Variable: Tobin's Q				
Method: Panel Least Squares				
Date: 12/03/23 Time: 04:32				
Sample: 2011 2022				
Periods included: 12				
Cross-sections included: 63				
Total panel (balanced) observations: 756				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21,13842	12,77874	1,654186	0,0985
DEB	-0,179046	0,092860	-1,928125	0,0543
OWN	5,719441	1,837855	3,112020	0,0019**
INQUISITION	-5,884760	3,638123	-1,617527	0,0106
SIZE	-0,641397	0,049338	-13,00008	0,0000**
LIQ	0,003875	0,020957	0,184928	0,8533
GRO	-0,000535	0,001332	-0,401283	0,6883
FOR	3,518401	0,402991	8,730727	0,0000**
DIV	7,16E-05	0,000426	0,168031	0,8666
INS	0,678079	0,267895	2,531140	0,0116**
WHERE	-216,2596	263,5618	-0,820527	0,4122
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0,852327	Mean dependent var	1,864444	
Adjusted R-squared	0,836759	S.D. dependent var	1,184727	
S.E. of regression	0,478666	Akaike Info Criterion	1,455946	
Sum squared resid	156,4894	Schwarz criterion	1,902833	
Log likelihood	-477,3476	Hannan-Quinn criter.	1,628077	
F-statistic	54,75108	Durbin-Watson stat	0,919608	

Prob(F-statistic)	0,000000**
Significance level at alpha 1%	
** Significance level at alpha 5%	
* Significance level at alpha 10%	

Source: Researcher, 2023

Model 3 is a measure of the influence of capital structure on the company's performance as compared to *Tobin's Q* and the moderation effect of corporate ownership. From the table, the *R²* value is presented as 85.23% and the *adjusted R²* is 83.67%. The *F-Stat* value is 54.7510 and the probability of the *F-value* is 0.0000. Significant values ($\alpha < 5\%$) indicate that the variables *OWN*, *OWNDEB*, *SIZ*, *INS* and *PRO* affect *Tobin's Q*. While the other variables were not significant to *Tobin's Q*.

The initial hypothesis of this study states that the company's performance is influenced by the capital structure. The success of the company's performance is reflected in the company's maximum value when operating with an optimal level of capital structure (Muhammad et al., 2020). This factor is a motivation for the company's management to find the most suitable and optimal capital structure.

The findings of this study show that in models 1 and 2, there is a negative correlation between capital structure and *ROA* and *ROE*. This negative relationship arises because the use of debt generally involves paying interest to creditors. This interest expense can be a significant financial burden for companies, especially when interest rates are high. If the interest expense is too large, it can reduce the company's net profit, thereby lowering its financial performance (*ROA* and *ROE*). In addition, companies with high debt ratios may experience financial limitations. Companies may face difficulties in obtaining additional financing if needed or face pressure to pay off overdue debts. This can limit a company's ability to make investments and potentially degrade the company's performance.

The results of the study show that the capital structure has a negative and significant influence on the company's performance. In other words, debt ratios negatively and significantly affect *ROA* and *ROE*. These findings are in line with research conducted by Ramli, Latan, and Solovida (2019), Le and Phan (2017), Ibhagui and Olokoyo (2018), and Wahba (2014). This conclusion also supports the signaling theory, where debt can be an indicator of a company performing well or vice versa, according to Ross's (1977) view. Within the framework of agency theory, the relationship between management and shareholders can be affected by *agency conflict*. Management may tend to take higher risks when using debt, which has the potential to increase agency costs and negatively impact the company's performance. Therefore, the use of debt.

Meanwhile, the results of the study in model 3 that examined the relationship between capital structure and *Tobin's Q* showed positive but insignificant results.

The second hypothesis in this study explains that the correlation between capital structure and company performance will be influenced by the moderation variable, namely managerial ownership. In addition, the concentration of shareholding by the management, including the Board of Directors and the Board of Commissioners, is also considered to have the potential to affect the impact of the capital structure on the company's performance.

The output of this second hypothesis shows that managerial ownership does not have a significant moderation effect on the relationship between the company's capital structure and

performance (*ROA*). However, managerial ownership has a positive moderation effect on the correlation between capital structure and company performance (*ROE*). In other words, managerial ownership reduces the negative impact of capital structure on company performance (*ROE*). This understanding is based on the argument that the ownership of shares by the management provides a direct stimulus for them to maintain and improve the performance of the company, since they directly benefit from such improved performance through remuneration and bonuses. In addition, managerial ownership may further encourage the selection of an optimal *capital structure* to improve long-term performance. Their personal interest in the growth of the value of the stock can motivate them to make better financial decisions. This condition makes the existence of shareholding by management can weaken the negative correlation between capital structure and company performance (*ROE*).

Furthermore, it was found that managerial ownership acts as a moderation with a negative effect on the correlation between capital structure and company performance (*Tobin's Q*). Thus, managerial ownership reinforces the negative correlation between the capital structure and the performance of the company (*Tobin's Q*). The findings of this study are based on the argument that management who own shares in a company may have personal interests that encourage them to take certain capital structure policies that can benefit them individually, even if those decisions are detrimental to major shareholders. This conflict of interest can reinforce the negative impact on the company's value. Additionally, managerial ownership can increase the risk that managers will overuse debt to increase their personal returns through *the leverage* effect. If the debt level is too high, the company's financial risk can increase, leading to a decline in the company's value. This situation can also be explained by *signaling* theory, that when a company reports a very large or unreasonable level of debt, this can give a negative signal to investors, who then avoid investing in the company. This resulted in a decline in the stock price and had an impact on the decline in the value of the company.

The results of this study prove that in the first model, managerial ownership did not have a moderation impact on the correlation between capital structure and company performance (*ROA*). However, the findings of the study in the second model show that managerial ownership has a positive moderation effect on the relationship between capital structure and company performance (*ROE*). On the other hand, in the third model, it can be seen that managerial ownership acts as a moderation with a negative effect on the relationship between the capital structure and the performance of the company (*Tobin's Q*).

These findings are in line with the results of Wahba's (2014) study, which stated that managerial ownership has an impact on performance and serves as a moderation in the correlation between debt and company performance. The relationship is said to be negative (positive) depending on whether there is (none) concentration of managerial ownership. This research is also in line with the findings of Margaritis and Psillaki (2010), which indicate that the concentration of share ownership correlates with the use of debt in the company's capital structure. The unfavorable correlation between managerial ownership and *ROE* suggests that the greater the concentration of managerial ownership in a company, the lower the use of debt. This reduces the risk of bankruptcy and can increase the rate of return on equity reflected in *ROE*. Managerial ownership that is positively correlated with *Tobin's Q* shows that the more concentrated the managerial ownership of a company, the more stimulated the investment in the company where the funding may not be sourced from debt to avoid the risk of bankruptcy.

CONCLUSION

This study aimed to assess the effect of capital structure on corporate performance and to examine whether managerial ownership moderated this relationship. Based on the findings, capital structure had a significant negative effect on corporate performance in Models 1 and 2. In Model 3, the effect was not statistically significant; however, the coefficient remained negative, consistent with the direction observed in the other models. These findings indicate that higher levels of debt within the capital structure may be associated with lower corporate performance, although the strength and significance of this relationship varied across the performance measures used.

Considering the limitations of this study, future research could incorporate macroeconomic factors that may influence both corporate performance and capital structure, such as market conditions, government policies, interest rates, inflation, and broader economic changes. Future studies could also expand the scope of analysis by including companies from multiple countries or extending the observation period to examine whether the findings remain consistent across different economic and financial environments, including developed and emerging markets. In addition, event-based analyses could be incorporated to investigate how extraordinary conditions, such as financial crises or other major economic disruptions, affect the relationship between capital structure and corporate performance.

REFERENCES

- Ahirrao, Y. S., Ansari, I., Azim, K. S., Bhujel, K., & Panchal, S. S. (2025). AI-powered financial strategy: Transforming business decision-making through predictive analytics. *Emerging Frontiers Library for the American Journal of Engineering and Technology*, 7(9), 126–151.
- Amin, M., Gohar, M., & Ali, I. (2025). Impact of digital transformation on SME's marketing performance: Role of social media and market turbulence. *Discover Sustainability*, 6(1), 378.
- Hamdani, D. Z., & Suharti, E. (2022). Determinant of corporate social responsibility and its implication of financial performance. *Jurnal Akuntansi*, 26(2), 342–357.
- Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: New evidence on the role of firm size. *The North American Journal of Economics and Finance*, 45, 57–82. <https://doi.org/10.1016/j.najef.2018.02.002>
- Imran, S., Hundal, S., & Rautiainen, A. (2025). Impact of non-financial parameters of strategic investment decision-making on corporate financial performance. *Journal of Advances in Management Research*, 1–19.
- Jardak, M. K., & Ben Hamad, S. (2022). The effect of digital transformation on firm performance: Evidence from Swedish listed companies. *The Journal of Risk Finance*, 23(4), 329–348.
- Kara, K., Özyürek, H., Yalçın, G. C., & Burgaz, N. (2024). Enhancing financial performance evaluation: The MEREC-RBNAR hybrid method for sustainability-indexed companies. *Journal of Soft Computing and Decision Analytics*, 2(1), 236–257.
- Le, T. P. V., & Phan, T. B. N. (2017). Capital structure and firm performance: Empirical evidence from a small transition country. *Research in International Business and Finance*, 42, 710–726. <https://doi.org/10.1016/j.ribaf.2017.07.012>
- Li, K., Yue, H., & Zhao, L. (2009). Ownership, institutions, and capital structure: Evidence from China. *Journal of Comparative Economics*, 37(3), 471–490. <https://doi.org/10.1016/j.jce.2009.07.001>

- Lubis, N. W. (2022). Resource based view (RBV) in improving company strategic capacity. *Research Horizon*, 2(6), 587–596.
- Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621–632. <https://doi.org/10.1016/j.jbankfin.2009.08.023>
- Mioduchowska-Jaroszewicz, E. (2023). Investment decisions based on the financial performance of related parties. *Procedia Computer Science*, 225, 3313–3321.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261–297. <https://www.jstor.org/stable/1809766>
- Muhammad, H., Migliore, S., & Mohsni, S. (2020). Capital structure and firm performance: The role of corporate governance. *International Journal of Business Governance and Ethics*, 1(1), 1. <https://doi.org/10.1504/IJBGE.2020.10033577>
- Naeem, N., & Çankaya, S. (2022). The impact of ESG performance over financial performance: A study on global energy and power generation companies. *International Journal of Commerce and Finance*, 8(1), 1–25.
- Nguyen, V. H., Nguyen, T. T. C., Nguyen, V. T., & Do, D. T. (2021). Internal factors affecting firm performance: A case study in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(5), 303–314. <https://doi.org/10.13106/jafeb.2021.vol8.no5.0303>
- Ning, L., & Yao, D. (2023). The impact of digital transformation on supply chain capabilities and supply chain competitive performance. *Sustainability*, 15(13), 10107.
- Olayinka, A. A. (2022). Financial statement analysis as a tool for investment decisions and assessment of companies' performance. *International Journal of Financial, Accounting, and Management*, 4(1), 49–66. <https://doi.org/10.35912/ijfam.v4i1.852>
- Ramli, N. A., Latan, H., & Solovida, G. T. (2019). Determinants of capital structure and firm financial performance—A PLS-SEM approach: Evidence from Malaysia and Indonesia. *The Quarterly Review of Economics and Finance*, 71, 148–160. <https://doi.org/10.1016/j.qref.2018.07.001>
- Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach. *The Bell Journal of Economics*, 8(1), 23–40. <https://doi.org/10.2307/3003485>
- Shahadat, M. M. H., Chowdhury, A. H. M. Y., Nathan, R. J., & Fekete-Farkas, M. (2023). Digital technologies for firms' competitive advantage and improved supply chain performance. *Journal of Risk and Financial Management*, 16(2), 94.
- Thi Viet Nguyen, N., Nguyen, C. T. K., Ho, P. T. M., Thi Nguyen, H., & Van Nguyen, D. (2021). How does capital structure affect firm's market competitiveness? *Cogent Economics & Finance*, 9(1), 2002501. <https://doi.org/10.1080/23322039.2021.2002501>
- Tran Thanh Thuy, N. (2025). Effect of accounting information system quality on decision-making success and non-financial performance: Does non-financial information quality matter? *Cogent Business & Management*, 12(1), 2447913.
- Türegün, N. (2022). Financial performance evaluation by multi-criteria decision-making techniques. *Heliyon*, 8(5).
- Wahba, H. (2014). Capital structure, managerial ownership and firm performance: Evidence from Egypt. *Journal of Management & Governance*, 18(4), 1041–1061. <https://doi.org/10.1007/s10997-013-9271-8>
- Weston, P., & Nnadi, M. (2023). Evaluation of strategic and financial variables of corporate sustainability and ESG policies on corporate finance performance. *Journal of Sustainable Finance & Investment*, 13(2), 1058–1074.
- Yu, X., Fan, L., & Yu, Y. (2025). Artificial intelligence and corporate ESG performance: A mechanism analysis based on corporate efficiency and external environment. *Sustainability*, 17(9), 3819.