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Improving Capital Structure through Firm Size and Sales Growth: The mediating role of Managerial Ownership

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Abstract

Conflict between ownership and management constitutes a significant concern within organizational dynamics. Nevertheless, the alignment of the interests between owners and management can be advanced by promoting managerial ownership. Prior research delving into the role of managerial ownership as an intermediary variable linking firm size and sales growth, with capital structure remains rather limited, particularly in the context of non-financial companies listed on the IDX. This study investigates the correlations between firm size and sales growth with capital structure, mediated by managerial ownership. This investigation focuses on non-financial entities that are not state-owned enterprises and are listed on the IDX. Hypothesis testing in this study was conducted using path analysis. Path analysis is calculated by decomposing the causal influence model between direct and indirect variables. The findings of this study add to a more profound understanding on how firm size, when mediated by managerial ownership, impacts the capital structure, as indicated by the LTDR proxy. This underscores that managerial ownership, as a means of mitigating agency conflicts, can exert an influence on management's decision-making concerning the proportion of long-term debt within the capital structure. It is worth noting that Managerial ownership does not serve as a substantial mediator in the influence of sales growth on the capital structure.

Keywords: *Capital Structure, Managerial Ownership, Agency Theory, Firm Size, Sales Growth.*

Introduction

Capital structure decision stands as a pivotal factor in assessing a company's economic orientation in the capital market [1]. Capital structure of a firm is shaped by asymmetric information, which combines an entrepreneur's funding decisions, a provider's credit allotment, and market conditions [2]. Financing authority decision-making affects the company's capital structure [3]. As posited by Gharaibeh & AL-Tahat [4], the concept of capital structure is related to increasing debt financing and decreasing equity financing and vice versa. Capital structure represents a combination of financing derived from both debt and equity sources, referring to long-term funding sources [5]. Among the available choices for capital structure adopted by management, one prominent alternative is the long-term debt ratio (LTDR), primarily owing to its protracted repayment timeline and comparatively lighter instalment burden.

Firm size and sales growth are company characteristics that determine the choice of capital structure sourced from LTDR. However, a consensus regarding the nature of their relationship with LTDR remains elusive. Previous research Earlier studies have indicated a direct correlation between firm size and LTDR Conversely, Olibe et al. [6] presented findings suggesting an inverse association between firm size and LTDR. In contrast, Handoo & Sharma [7] reported that firm size exerts an insignificant impact on LTDR. Companies experiencing an upsurge in sales growth often allocate resources to expand their business operations. Such an increase in sales growth serves as a positive signal of the company's future performance, and vice versa. Previous research has revealed a positive correlation between sales growth and LTDR [8]. In contrast, Alipour et al. [9] have asserted an inverse relationship between sales growth and LTDR, while Sikveland & Zhang (2020) show that the relationship between sales growth and LTDR is insignificant.

As one of the most important capital market businesses in Asia, the role of size and sales growth on capital structure in capital market businesses in Indonesia has become one of the studies that attracted the attention of researchers [10]. Moosa & Li [11] and Reinhard & Li [12] explain that Firm Size plays a substantial role in shaping the capital structure. Bunkanwanicha et al. [13] comparing capital markets in Indonesia and Thailand shows that increasing Firm Size and sales growth improved the capital structure before the 1998

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crisis in both countries. Following the crisis, in Indonesia and Thailand, firm size exhibited an inverse relationship with capital structure, while sales growth did not exert a notable influence on the composition of the capital structure.

Existing empirical research shows a disparity in the relationship between firm size and sales growth in relation to capital structure. It is hoped that the gap mentioned above can be overcome by managerial ownership. Managers with significant shareholdings in a company often show a preference for reducing debt levels to mitigate potential financial difficulties and protect their own interests. Managers do not want to take the risk of investing too much personal wealth in companies with high debt [14]. The examination of managerial ownership as a mediator in the connection between firm size, sales growth, and capital structure has garnered significant scholarly attention. The objective of this study is to enhance comprehension concerning the mediating role of managerial ownership in the relationship between company size and sales growth on capital structure measured by LTDR , in non-financial firms that are publicly listed on the Indonesia Stock Exchange (IDX). The current corpus of literature pertaining to the interrelationship among management ownership, company size, sales growth, and capital structure within the Asian capital market, include in Indonesia, remains inadequate. The study discovered that management ownership has a substantial role in mediating the indirect impact of firm size on capital structure. However, it does not significantly mediate the indirect impact between sales growth and capital structure.

Literature Review

Firm Size

When investors seek to allocate a portion of their funds into a company, Firm Size is one of the considerations. Investors tend to be more confident investing in large companies because they have several advantages, such as larger assets, higher market value, sales and various other factors. Better diversification in large companies compared to small companies is also a consideration for investors [15]–[17]. With this ability, the company will more easily increase competitiveness with various company innovations. Large companies tend to have a long business history, so they can utilize these advantages to obtain loans from creditors to project their future performance [18]. Following the trade-off theory, financial distress and bankruptcy risk are less likely to occur in large companies [16], [17], [19]. The financial flexibility of large companies is better than that of small companies, allowing them to make adjustments at a lower cost [20]. Information asymmetry tends to be lower in large companies, which means funding costs are cheaper and improvements are faster [20].

Sales Growth

Subramanyam [21] defines sales growth as analysing sales trends concerning segments to assess the company's profitability. Ghozali et al.[22] said sales growth is influenced by internal factors (factors that the company can control) and external factors (factors that the company cannot control). Sales growth shows the opportunity for the company to develop better. Price changes, volume changes, acquisitions/divestments, and exchange rate changes generate sales growth [22]. Companies with sales growth can generate increased market share and synergy effects, thus leading to favourable performance [23]. Agency theory suggests that managers strive for sales growth as a means to secure job stability and salary enhancements, ultimately fostering the company's development and growth [24], [25]. Firms experiencing elevated sales growth generally exhibit an increased corporate value. [26], [27]. The increase in sales growth in the company has implications for the increasing need for funding sources in the long term to finance the company's investment and business expansion.

Capital Structure

Myers [28] posited that capital structure is divided into two primary theories: the trade-off and the pecking order theories. According to the trade-off theory, the optimal blend of debt and company equity is attained when there is an equilibrium between the advantages and drawbacks of debt. In the context of this theory, businesses stand to benefit from tax savings when they are provided with incentives to embrace debt [30]. The trade-off theory elucidates financial limitations and agency costs arising from the interplay between shareholders and debt, highlighting that tax advantages and debt oversight serve to reduce these agency costs [31]. The primary goal of the trade-off theory is to strike a delicate equilibrium between the benefits

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of tax advantages and the potential pitfalls of bankruptcy [32]. This theory asserts that the most advantageous capital structure is attained through the careful management of supervisory concerns, the bonding effect, debt tax benefits, and various other agency costs [33].

The pecking order theory states that company managers possess a deeper comprehension of the company's future prospects, risks, and value compared to external investors. This theory posits that firms prioritise the allocation of funds by relying on internal rather than external sources, with retained earnings serving as the major funding source [30], [31], [34]. Pecking order theory requires tiered funding sources due to financial constraints stemming from asymmetric information between managers/owners and investors [35]. External financing is more costly in comparison to internal financing due to unequal access to information between managers and financing providers [36]. In the theory of pecking order, the notion of an optimal debt ratio is not applicable.

Firm Size and Capital Structure

Following the theory of trade-off, a positive correlation is observed between firm size and capital structure [16], [37]. This positive association arises from the trade-off between the advantages of a debt policy, encompassing benefits like tax protection and savings [38]. Previous empirical studies explain that Firm Size is positively associated with LTDR [35], [39]–[41]. Large companies prefer long-term debt to finance investments, while small companies choose short-term debt [42]. Thus, the following hypothesis is proposed:

H1. If Firm Size increases, then LTDR will increase.

Sales Growth and Capital Structure

Increased sales growth usually requires more cash in the future and maintains more profits; consequently, the relationship between sales growth and debt is anticipated to be positive to finance investment to maintain growth [43]. The Pecking Order theory foresees a positive correlation between debt and growth, as a company's internal funds may not be adequate for expansion, given their prior utilization in financing earlier expansions [44]. Consistent with the theory of pecking order, sales growth can increase long-term debt.

The theory of trade-off postulates that growth-driven firms require large investments, potentially creating agency problems between managers and creditors and negatively impacting the growth and debt relationship. [44]. External parties cannot guarantee the consistency of growth rates; therefore, Firms with substantial growth rates typically rely less on external funding [45]. Thus, the authors propose the following hypothesis:

H2: If sales growth increases, then LTDR will increase.

Managerial Ownership

Rahmawati et al.(2018) define managerial ownership as the proportion of shares owned collectively by directors and commissioners in relation to the total outstanding shares. Agency theory says owners and agents try to maximize the company's economic potential rationally. Agency theory assumes owners and managers are involved in different relationships to avoid risks [48], [49]. The desire to share risk is a concern because the owner has assigned certain responsibilities to the agent to achieve the same goal [50]. The separation between owners and agents may imply that agent decisions do not represent the owners' interests, leading to agency problems. In order to reduce agency problems, it is necessary to clearly define agents' strategic rights and termination rights [51].

The relationship between managers and owners affects the company's success [52]. When the relationship between the two parties is in line, the company's management will be smoother, and vice versa. Incentives to agents can be given as money or shares of a small portion of the owner's shareholding to improve the alignment of interests between owners and agents. According to agency theory, managerial ownership serves to synchronize their incentives with those of the shareholders. [53], [54]. High managerial ownership in the company leads to lower agency costs than equity [55]. Elevated managerial ownership diminishes the conflict between debt holders and equity owners, as managers hold a pivotal role within both of these entities.

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Firm Size and Managerial Ownership

Managerial ownership in the company is a union of interests between managers and owners so that decision-making by managers also represents the interests of company owners. Greater managerial ownership benefits managers by increasing prices by selling equity to outside shareholders. In some companies, managerial ownership tends to be dominant, while in others,, managerial ownership tends to be small or absent. The dispersion of managerial ownership in large corporations is typically greater, resulting in a negative correlation between business size and managerial ownership [56], [57]. Considering this elucidation, the authors put forth the subsequent hypothesis:

H3. If Firm Size increases, managerial ownership decreases.

Sales Growth and Managerial Ownership

Beyer et al. [58] said that high managerial ownership tends to increase investment because the potential for high growth exceeds investment failure in line with managers' power, remuneration and prestige. According to Jiraporn & Nimmanunta (2017), Sales growth is negatively related to managerial ownership. However, Berķe-Berga *et al.*[60] and Rhou et al. [61] show that sales growth is positively correlated with managerial ownership. Rajverma et al. [62] said for large companies, an increase in sales growth tends to increase company ownership because it can signal a decrease in risk for the company. Based on this description, the researchers propose the following hypothesis:

H4: If sales growth increases, the level of managerial ownership increases.

Managerial Ownership and Capital Structure

Capital structure decisions for investment needs involve the role of managers and shareholders. The existence of managerial ownership is one of the considerations for creditors when approving loans. Companies with high managerial ownership usually pay higher terms and interest rates when applying for loans, as these costs offset the agency costs of debt. The agency cost of equity of companies with high managerial ownership is usually lower, but the agency cost of debt is high due to the alignment of the interests of managers and shareholders compared to debt holders. The presence of managerial ownership helps reduce debt levels, reduces finance costs, and lowers the likelihood of bankruptcy [63]. Previous research states that higher managerial ownership significantly reduces LTDR [64]. The percentage of managerial share ownership is negatively related to LTDR[39]. Considering this elucidation, the authors put forth the subsequent hypothesis:

H5. If the company's managerial ownership level increases, then the LTDR decreases.

Managerial ownership as a mediator

Managerial ownership has a strategic role in determining the company's future direction [65]. Managerial share ownership is important in determining capital structure decisions from long-term debt. Feng et al. [41] show that low managerial ownership in the company favours high LTDR. Firm size influences LTDR, as large firms have greater capacity and access to long-term debt. Previous studies have shown that firm size is directly proportional to LTDR [66], [67]. The size of the company is related to managerial ownership. Previous research shows that Firm size is inversely related to managerial ownership [14], [57]. Kamardin [68] shows that small companies tend to have high managerial ownership. Managerial ownership will serve as a mediating factor in the impact of firm size on capital structure, given the crucial roles managers and shareholders assume in formulating decisions regarding capital structure. Based on this information, the hypothesis of this study is as follows:

H6: If firm size increases, then the firm's LTDR increases through managerial ownership

Managerial ownership is needed to mediate the relationship between sales growth and LTDR because managerial ownership can determine the company's funding sources for investment caused by sales growth. The decision to choose the company's capital structure cannot be separated from the role of managerial ownership. Lower managerial ownership correlates with higher debt levels because higher debt levels

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significantly reduce managerial ownership to achieve convergence of interests [57]. Lower managerial ownership often causes managers to extend debt maturity to reduce the cost of liquidity risk.

Sales growth represents growth and investment prospects, thus increasing the need for funds to finance investment. Increased sales growth is possible in companies with managerial shareholding but reduces the impact of free cash flow held on performance. Increased sales growth can encourage managerial ownership to increase its shares when it generates increased profits. This shows that sales growth is related to managerial ownership. Large firms require more debt due to high sales growth, high fixed asset ratio and higher fixed asset concentration [62]. In practice, sales growth positively correlates with LTDR [8]. Based on this description, the following hypothesis is proposed:

H7: If the firm's sales growth increases, the firm's LTDR decreases through managerial ownership

Based on this description, the research framework is as follows:

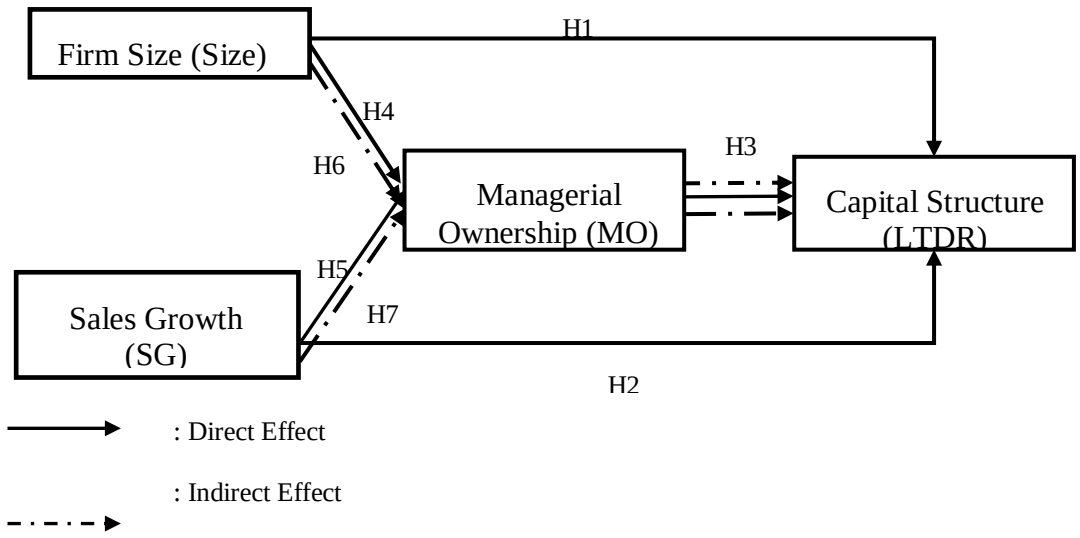

Figure 1. Research Framework

Research Methods

Measurement

This research uses quantitative descriptive methods. Using measurement, this study's variables consist of:

Table 1. Research Variables

Variable	Definition
Exogenous Variables	
Firm Size (Size)	$\text{Size} = \text{Logaritm Natural Total Aset}$ [7], [9], [69]
Sales Growth (SG.)	$\text{SG} = \left(\frac{\text{Sales}_t - \text{Sales}_{(t-1)}}{\text{Sales}_{(t-1)}}\right) \text{x}100\%$ [9], [70]
Control Variables	
Asset Structure (AS)	$\text{Asset Structure} = \frac{\text{Fixed Asset}}{\text{Total Asset}}$ (Ahsan *et al.*, 2016; Alipour *et al.*, 2015; Kumar. *et al.*, 2017)
Profitability (ROA)	$\text{ROA} = \frac{\text{Earning Before Interest and Tax}}{\text{Total Asset}}$ [7], [9], [10], [72]

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Liquidities (CR.)	$\text{CR} = \frac{\text{Current Asset}}{\text{Current Liability}}$ [9], [73]
Mediating Variable	
Managerial Ownership (MO)	$\text{MO} = \frac{\text{Number of shares owned by Director \& Commissioners}}{\text{Number of shares outstanding}} x100\%$ [47], [74],
Endogenous Variable	
Capital Structure (LTDR	$\text{LTDR} = \frac{\text{Long-Term Loans+other long term liabilities}}{\text{Total Asset}}$ [18], [75]

Population and Sample

The research data was sourced from the annual financial reports of each company for the period spanning 2010 to 2019, accessible through https://www.idx.co.id and the respective company websites. The research population is non-financial companies listed on the IDX for the 2010-2019 period that submitted financial reports during the study period, namely 276 companies. Through the purposive sampling approach, out of the 276 companies in the population, 62 companies (equating to 620 observations) met the criteria with managerial share ownership during the study period as the final sample. The consideration of choosing a non-financial company is because the company has uniformity in terms of financial statements. The size of the assets does not make a difference in this study. State-owned companies are not involved to avoid the government's corporate decision-making role.

Data analysis

The analysis method used is path analysis. The selection of path analysis was made thoughtfully, as it offers the capability to examine both the direct and indirect causal relationships among variables. The analysis begins with multiple linear regression analysis with an Ordinary Least Square (OLS) estimator, with the following structural equation:

Structural equation model 1:

$$\text{LTDR} = \rho_{\text{LTDR}}\text{Size} + \rho_{\text{LTDR}}\text{SG} + \rho_{\text{LTDR}}\text{MO} + \rho_{\text{LTDR}}\text{AS} + \rho_{\text{LTDR}}\text{ROA} + \rho_{\text{LTDR}}\text{CR} + \varepsilon_1 \quad (1)$$

Structural equation model 2:

$$\text{MO} = \rho_{\text{MO}}\text{Size} + \rho_{\text{MO}}\text{SG} + \varepsilon_2 \quad (2)$$

Multicollinearity testing involves evaluating the correlation value between independent variables, ensuring it remains less than 0.8 [76]. The test criteria in path analysis use a one-way test with a significance level of $\alpha = 0.05$. Correction for violations of autocorrelation and heteroscedasticity using the Heteroscedasticity and Autocorrelation Consistent (HAC) standard error method or Newey-West standard error [76]. Testing the indirect effect between firm size and sales growth on LTDR through ownership as a mediator using the Sobel test [77].

Results

Table 2 presents descriptive statistical values regarding non-financial companies selected as research samples for the period 2010 to 2019. The mean of total assets is Rp. 10,979,244.18 million, with the largest total asset of Rp. 351,958,000 million. While the smallest total asset is Rp. 41,784 million. The research findings reveal that the total assets of the sample enterprises exhibit a significant degree of variability, as seen by the calculated standard deviation of Rp. 34,187,056.301. The mean sales growth was 13,700%, with a maximum value recorded at 663,801% and a minimum of -98,415%. The research period experienced significant fluctuations in sales growth, as evidenced by the standard deviation figure of 50.038%.

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The mean value of Asset Structure is 32.5% with a standard deviation of 0.206. The largest Asset Structure is 91.17%, while the smallest is 0.20%. The average of profitability measured by ROA is 4.065%, with a standard deviation of 8.205%. The largest profitability is 46.49%, while the smallest is -43.63%. This information shows the high difference in profitability between companies. The mean of liquidity as measured by CR is 2.274, with a standard deviation of 3.826. The largest is 75.400, while the smallest is 0.086. This information shows that the variability of current assets is relatively high.

Table 2. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Size(Million rupiah)	620	41,784.000	351,958,000.000	10,979,244.176	34,187,056.301
SG (%)	620	-98.415	663.801	13.700	50.034
MO (%)	620	0.001	89.440	9.758	17.238
LTDR	620	0.002	0.733	0.163	0.130
AS	620	0.002	0.917	0.325	0.206
ROA (%)	620	- 43.631	46.490	4.065	8.205
CR	620	0.086	75.400	2.274	3.826

Sources: Secondary Data

The core focus of this research is managerial ownership as the mediating variable, with an average value of 9.758%. The maximum observed level of managerial ownership is 89.44%, and the minimum is 0.001%. The standard deviation is 17.238%, indicating significant variability in the distribution of managerial ownership. The mean LTDR value stands at 16.30%, with a standard deviation of 0.130. This suggests that non-financial companies tend to rely more on short-term debt rather than long-term debt, and there is relatively little variability in this pattern. The highest LTDR observed is 73.33%, while the lowest LTDR recorded is 0.20%.

Figure 2. informs the managerial ownership chart of non-financial companies based on the industrial sector for the 2010-2019 period. The mining sector dominates managerial ownership in companies. In the 2010-2015 period, the manufacturing sector was in fourth position and increased to second in the 2017-2019. In the 2010-2015 period, the property, construction, and real estate sector was in second position, but in the 2016-2019 period, it was in fourth position. The trade, services and investment sector was in fifth position during the study period. The agricultural sector in the 2010-2016 period was in sixth position, but the average value of share ownership increased in the 2016-2019 period. Within the infrastructure, utilities, and transportation sectors, the level of managerial ownership typically remains constant, occupying the lower end of the spectrum.

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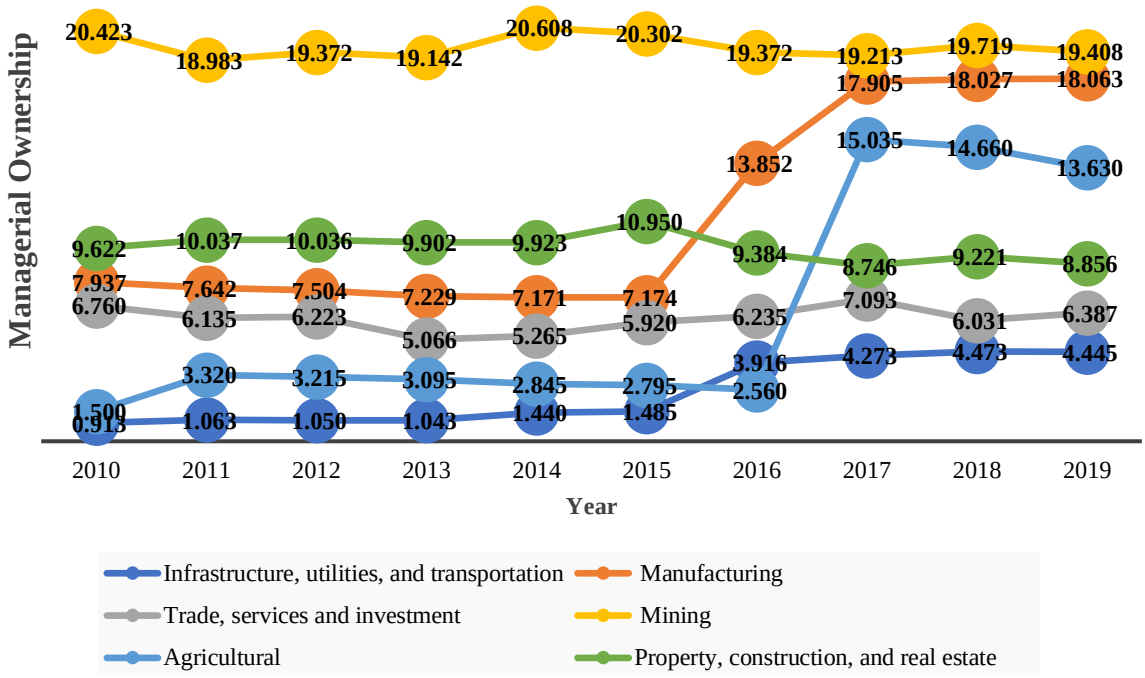

Figure 2. Managerial ownership of non-financial companies by industry type

Correlation Matrix

Table 3. Correlation matrix between variables

	Size	SG	AS	ROA	CR	MO	LTDR
Size	1						
SG	0.024	1					
AS	-.095*	-0.016	1				
ROA	.156*	.190*	-.207*	1			
CR	-.200*	-0.026	-.211*	0.023	1		
MO	-.116*	0.056	-0.063	-.089*	.119*	1	
LTDR	.331*	0.062	.365*	-.220*	-.204*	-.183*	1

Sources: Secondary Data

*. Correlation is significant at the 0.05 level (1-tailed).

Table 3 shows that Firm Size, sales growth and asset structure are positively correlated with LTDR, while ROA, CR and managerial ownership are negative. Firm size, ROA and asset structure are negatively correlated with managerial ownership, while sales growth and CR are positive. Firm Size, sales growth, and asset structure exhibit adverse correlations with CR, while ROA displays a positive correlation. Firm Size and sales growth have a positive correlation with ROA, while asset structure has a negative correlation. Firm size and sales growth are negatively correlated with asset structure. Firm size is positively correlated with sales growth. This study shows that the correlation between all variables is <0.80; thus, there is no multicollinearity disorder.

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Table 4. Results of Autocorrelation Testing

Model	Durbin Watson Value	k	dl	du	4-dl	4-du	Conclusion
Model 1	0.550	7	1.846	1.886	2.154	2.114	Positive
Model 2	0.315	3	1.859	1.872	2.141	2.128	Positive

Sources: Secondary Data

Table 5. Heteroscedasticity Test of Multiple Linear Regression Model with Glesjer Test

Model	Abs residual Model	Variable	Sig.	Conclusion
Model 1	LTDR	Size	0.000	Heteroscedasticities
		SG	0.441	Non-Heteroscedasticities
		MO	0.118	Non-Heteroscedasticities
		AS	0.844	Non-Heteroscedasticities
		ROA	0.002	Heteroscedasticities
		CR	0.150	Non-Heteroscedasticities
Model 2	MO	Size	0.157	Non-Heteroscedasticities
		SG	0.060	Non-Heteroscedasticities

Sources: Secondary Data

Tables 4 and 5 show violations of the autocorrelation and heteroscedasticity assumptions. Correction of autocorrelation and heteroscedasticity disorders with the HAC method is presented as follows:

Table 6. Comparison of OLSE Regression Model with HAC after standard error correction.

Model					**Standard Error Estimator**					
					OLSE			HAC		
			B	Std Coeficient B	SE	t	Sig.	N-W SE	t	sig.
Model 1	LTDR	(Constant)	-0.656		0.073	-8.989	0.000	0.0916	-7.1619*	0.000
		Size	0.0270	0.375	0.003	10.920	0.000	0.0033	8.2542*	0.000
		SG	0.0003	0.112	0.000	3.337	0.000	0.0001	3.5862*	0.0002
		MO	-0.001	-0.142	0.000	-4.249	0.000	0.0003	-4.1067*	0.0000
		Control Variables								
		AS	0.212	0.337	0.022	9.721	0.000	0.0289	7.3221*	0.0000
		ROA	-0.004	-0.242	0.001	-6.979	0.000	0.007	-5.5426*	0.0000
		CR	-0.001	-0.033	0.001	-0.955	0.170	0.006	-1.7730*	0.0384
Model 2	MO	(Constant)	41.7483		11.003	3.794	0.000	16.018	2.6064*	0.0094

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		Size	-1.1384	-0.117	0.388	-2.938	0.0015	0.5626	-2.0235*	0.0217
		SG	0.0203	0.059	0.014	1.473	0.0710	0.0199	1.0160	0.1550

*. Correlation is significant at the 0.05 level (1-tailed).

Sources: Secondary Data

Full Path Analysis Model

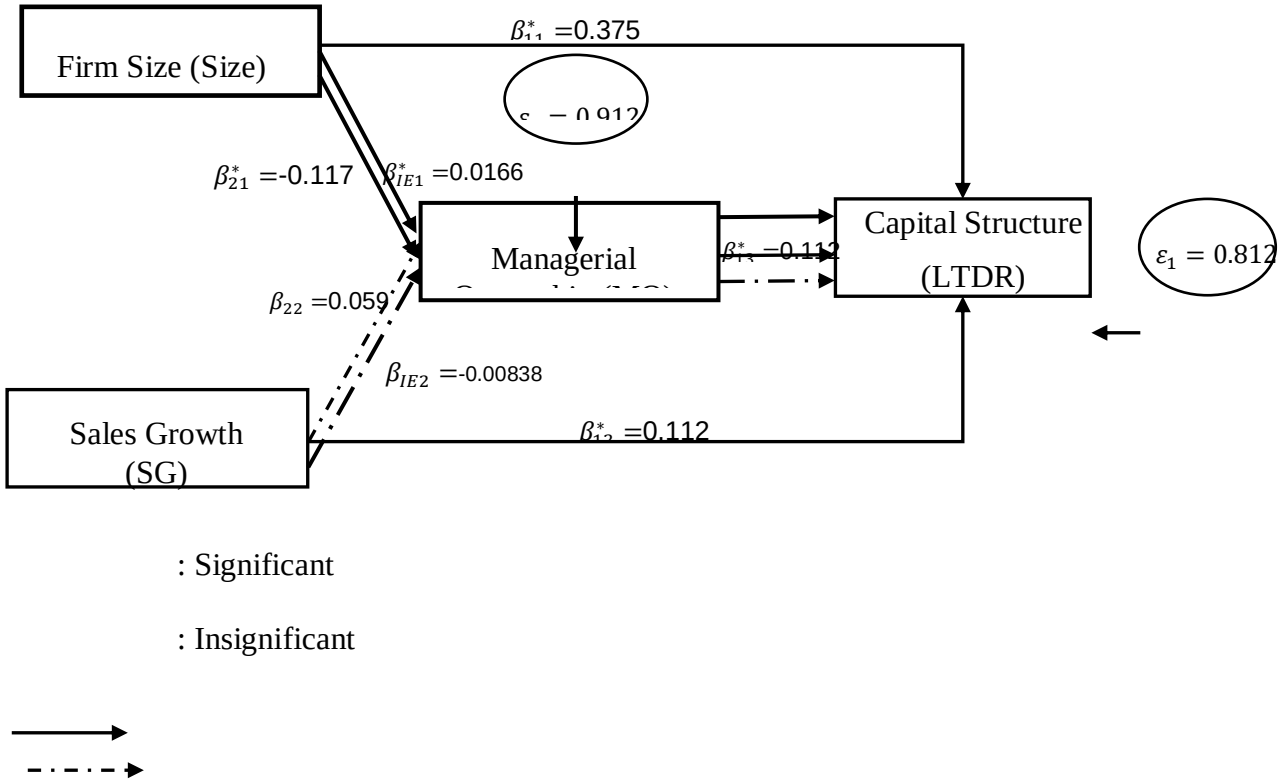

Figure 1: Full Path Analysis Model

The path analysis model consists of two sub-structures, namely:

Sub-structural model 1.

$$\text{LTDR} = 0.375\ \text{Size} + 0.112\text{SG} - 0.142\text{MO} + 0.337\text{AS} - 0.242\text{ROA} - 0.033\text{CR} + \varepsilon_1\ ;$$

$$\boldsymbol{R^2} = 33.99\%;\ \text{F=40.8550; sig.=0.000} \quad (3)$$

Substructural capital 2.

$$\text{MO} = -0.117\ \text{Size} + 0.059\text{SG} + \varepsilon_2;\ \boldsymbol{R^2} = 1.69\%;\ \text{F=2.4522; sig.=0.0434} \quad (4)$$

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Table 7. Direct and Indirect Effect

Information	Path Coefficient	t	Sig. (One-tail Test)	Conclusion
Direct Effect				
Size ⟶ LTDR	0.375	8.2542	0.0000*	accepted
SG ⟶ LTDR	0.112	3.5862	0.0002*	accepted
MO ⟶ LTDR	-0.142	-4.1067	0.0000*	accepted
Size ⟶ MO	-0.117	-2.0235	0.0217*	accepted
SG ⟶ MO	0.059	1.0160	0.1550	rejected
Control Variables				
AS ⟶ LTDR	0.337	7.3221	0.0000*	accepted
ROA ⟶ LTDR	-0.242	-5.5426	0.0000*	accepted
CR ⟶ LTDR	-0.033	-1.7730	0.0384*	accepted
Indirect Effect				
Size ⟶ MO ⟶ LTDR	0.0166	1.7716	0.03825*	accepted
SG ⟶ MO ⟶ LTDR	-0.00838	-0.9828	0.16285	rejected

Source: Secondary data processed with SPSS 26

*) significant at the 0.05 level (1-tailed).

The results of the path analysis model with the results of testing the effect of Firm Size and sales growth on LTDR through managerial ownership are shown in Table 2. Structural model 1 has a value of R^2 = 33.99%, which means that the ability of Firm Size and sales growth, as well as control variables AS, Profitability and Liquidity, explain the diversity of LTDR is 33.99%. The value of F=40.8550 (sig.=0.000<0.05) means that structural capital one is declared feasible. Sub-structural model 2 has R^2=1.69%, which means that the ability of firm size and sales growth to explain the diversity of managerial ownership is 1.69%. The value of F=2.4522 (Sig.=0.0434<0.05) indicates that structural capital two is declared feasible.

Using a one-way test, Table 6 shows the model path coefficient based on the standardized value of the model regression coefficient. Firm size has a positive and significant effect on LTDR (t=8.2542; Sig=0.000) with a magnitude of 0.375, so H1 is accepted. The effect of sales growth on LTDR is positive and significant (t=3.5862; Sig=0.0004), with a large effect of 0.112, so H2 is accepted. Managerial ownership is inversely proportional to LTDR (t=-1.9429; Sig=0.0263), with a magnitude of -0.142, so H3 is accepted. Firm size has a negative and significant effect on managerial ownership (t=-2.0235; Sig=0.0434), with a magnitude of -0.117, so H4 is accepted. Sales growth has no significant effect on managerial ownership (t = 1.0160; Sig = 0.1550), with a large indirect effect of 0.059, so H5 is rejected.

Using the Sobel test, the results showed that The indirect effect of company size on LTDR through managerial ownership is positive and significant (t=1.7716; Sig=0.0384), with a magnitude of influence of 0.0166, so H6 is accepted. Managerial ownership does not significantly mediate the indirect effect of sales growth on LTDR (t=-0.98281; Sig=0.16285), with the effect size being -0.00838; therefore, H7 is rejected.

On the control variable of asset structure, the study results show the effect of SA on LTDR with a path coefficient of 0.326. Asset structure has a positive and significant effect on LTDR (t=7.3221; Sig=0.000), with a path coefficient of 0.326. Profitability has a negative and significant effect on LTDR (t=-5.5426; Sig=0.0000), with a magnitude of -0.242. Liquidity has a negative and significant effect on LTDR (t= -1.7730; sig= 0.0384), with a magnitude of -0.033.

Discussion

First, The findings indicate a substantial and direct relationship between firm size and LTDR. These results align with research conducted by [35], [41], [78]. Therefore, as the firm size increases, the rise in LTDR becomes more pronounced. This outcome is in accordance with the trade-off theory, which asserts that there is a positive correlation between firm size and capital structure. [79]. The favourable association between size and LTDR may arise because creditors have more confidence in larger companies. This trust

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stems from the perception that larger companies, with their substantial asset base, are less likely to face default. After all, it is more capable of paying obligations. A greater level of trust in large companies is very helpful in realising the proposed credit, so Larger companies experience quicker debt credit realization than their smaller counterparts. Large companies enjoy greater ease in accessing substantial external financing, particularly in the form of debt, compared to smaller firms. [15]. According to the trade-off theory, large companies face a comparatively slower increase in the risk of bankruptcy associated with debt financing compared to small companies. This makes it more feasible for them to tap into the debt market [80]. Wang et al. [81] mention that larger companies tend to possess greater amounts of long-term debt because it offers a more convenient financing option. Following the pecking order theory, companies prioritize debt over issuing new equity to fulfil the capital structure, even though the use of retained earnings is the most important. Large companies are more likely to obtain capital structure through debt because of lower information asymmetry [10].

This study reveals that sales growth exerts a positive and noteworthy impact on LTDR. In other words, an increase in sales growth leads to an elevation in the capital structure as measured by LTDR. This study is consistent with previous studies showing a positive and significant effect of sales growth on LTDR [8], [72], [82]. From the pecking order theory perspective, high-growth firms rely more on external funds in the form of debt than equity to finance projects when internal funds are insufficient [63], [73]. Companies facing substantial sales growth encounter a more formidable challenge because they lack the necessary internal funds to support investment opportunities amid their accelerated expansion [70]. Increased sales growth encourages companies to expand through investment projects. Limited internal funds encourage companies to seek external sources of funds to support expansion with the minimum possible risk level. Increasing long-term debt is one alternative, with smaller repayment installments and a longer period of time.

The findings indicated a negative correlation between company size and managerial ownership. This outcome is consistent with prior research, which also demonstrated an inverse association between firm size and managerial ownership [61], meaning that managerial share ownership decreases significantly when Firm Size increases. It demonstrates the absence of a concentration of managerial ownership interests. Burden and risk sharing will be more equitable if the level of managerial ownership is small [61], [83], [84]. With little managerial ownership in large companies, the risks that occur in the company will be borne together with other company owners. Equity sources for increased investment will increase when managerial ownership in large companies is small. Thus, every decision made by managers as shareholders will consider the impact of the decisions by minimizing the risks.

This study indicates that the impact of sales growth on managerial ownership is not statistically significant. This finding aligns with the perspective put forth by Jirapon & Nimmanunta [59], which suggests that an increase in sales growth does not lead to a significant rise in managerial ownership Elevated sales growth serves as an indicator of the company's strong performance and promising future prospects [85]. High sales growth shows the CEO's and his staff's success, thus increasing his power in the organization [86], but this does not encourage them to increase their shareholding.

The results showed that managerial ownership negatively and significantly affects capital structure. This study is consistent with prior research findings that establish a significant and inverse relationship between managerial ownership and capital structure [41]. An increase in managerial ownership that lowers the capital structure indicates that managers with high share ownership tend to avoid the burden of long-term debt. This may happen because companies with LTDR tend to be riskier [6]. After all, they must be disciplined in paying debt obligations over a long period. High managerial ownership gives managers greater freedom to play governance in agency theory [87]. With such power, high managerial ownership tends to reduce long-term debt to minimize liabilities and the risk of bankruptcy due to default. The pecking order theory suggests that firms with high managerial ownership often favor financing their capital structure with company profits, rather than relying on long-term borrowing from creditors, as it has implications for long-term payment obligations. Conversely, from the perspective of agency theory, the observed inverse relationship between managerial ownership and capital structure is driven by increased managerial ownership, which fosters alignment between managers and external shareholders. This alignment, in turn, reduces the reliance on debt as a tool to mitigate agency conflicts [1]. Matias Gama & Manuel Mendes

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Galvão [88] state that agency conflict tends to decrease when managerial ownership is low, causing higher debt, but when the company's equity is mostly owned by managers, an increase in managerial ownership causes a decrease in the level of debt because it causes an increase in opportunistic managers.

Managerial ownership acts as a significant mediator in the relationship between firm size and the capital structure as gauged by LTDR. It plays a crucial role within the company since it represents a portion of the total shares held by its managers [89], [90]. When the company's size increases, managerial ownership tends to decrease. Still, this condition plays a role in encouraging the company to increase the capital structure sourced from LTDR through its role as manager. This is very beneficial for company managers because, with the help of managerial ownership, decision-making can keep the company's debt level low [91]. Large companies demand better governance because agency conflicts are more likely than small companies. Therefore, large companies need managerial ownership to control the company [92]. In line with this, increased managerial ownership makes the company more efficient [93], due to reduced agency costs. Managerial ownership can be a control tool for managers in making capital structure decisions [45], [91]. In making capital structure decisions originating from debt, there is a tendency for managerial share ownership in large companies to be bolder in proposing large amounts of debt. This may occur due to the assumption that the level of risk arising from the failure to pay debt obligations does not directly imply a decrease in personal wealth because the company has more assets as collateral to creditors.

Managerial ownership does not serve as a substantial mediator for the impact of sales growth on the capital structure as assessed by LTDR. Elevated sales growth signifies the company's strong current performance and promising future prospects [85]. High growth is also a signal for management to invest in the future to improve the company on a wider scale. Good corporate governance can be illustrated by managerial ownership in the company [94]. As part of the shareholders, managerial ownership should ideally increase its shareholding in the company when it sees a good opportunity in the future based on the increase in sales growth. Berķe-Berga et al. [60] said that sales growth is a fundamental company ratio that is directly proportional to managerial ownership. In this study, the increase in sales growth did not significantly encourage managers to increase their share ownership in the company. Uncertainty about the consistency of increasing sales growth may be one of the factors considered for managerial ownership to make this decision.

Conclusions

Agency theory posits that the misalignment of interests between investors and agents gives rise to agency costs. One strategy to mitigate these costs is to introduce managerial ownership incentives. When both management and investors assume the role of company owners, managerial decision-making is expected to be geared toward the interests of company owners. Hence, the investigation of the impact of firm size and sales growth on capital structure, mediated by managerial ownership, holds substantial importance. This research was carried out on non-financial and non-SOE companies listed on the IDX from 2010 to 2019. The study's findings reveal that firm size, when mediated by managerial ownership, indirectly exerts a negative and statistically significant influence on capital structure.

On the other hand, the indirect impact of sales growth on capital structure, as evaluated through LTDR and mediated by managerial ownership, does not exhibit a significant effect. This research aligns with the trade-off theory, which posits that as a company's size increases, there's a heightened requirement for capital structure to support investments. In such circumstances, when managerial ownership prevails within the company, the capital structure sourced from long-term debt is expected to decrease.

Managerial Implications

This implies that firm size will increase managerial ownership of managerial incentive activities, which in turn leads to a reduction in the capital structure relying on long-term debt. The study outcomes offer insight into the influence of firm size when mediated by managerial ownership on the capital structure. From a managerial perspective, it highlights that the mitigation of agency issues through managerial ownership can shape management's decisions in determining the proportion of debt within the capital structure.

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References

[1] R. K. Bajagai, R. K. Keshari, P. Bhetwal, R. S. Sah, and R. N. Jha, "Business governance and society: Analyzing shifts, conflicts, and challenges," in Business Governance and Society: Analyzing Shift, Conflicts, and Challenges, 2018, pp. 399–419.

[2] L. B. Martinez, V. Scherger, and M. B. Guercio, "SMEs capital structure: trade-off or pecking order theory: a systematic review," J. Small Bus. Enterp. Dev., vol. 26, no. 1, pp. 105–132, Feb. 2019, doi: 10.1108/JSBED-12-2017-0387.

[3] A. Naumoski, S. Arsov, and V. Cvetkoska, "Asymmetric Information and Agency Cost of Financial Leverage and Corporate Investments: Evidence from Emerging South-East European Countries," Sci. Ann. Econ. Bus., vol. 69, no. 2, pp. 317–342, 2022, doi: 10.47743/saeb-2022-0010.

[4] O. K. Gharaibeh and S. AL-Tahat, "Determinants of capital structure: Evidence from Jordanian service companies," Invest. Manag. Financ. Innov., vol. 17, no. 2, pp. 364–376, 2020, doi: 10.21511/imfi.17(2).2020.28.

[5] N. Danila, U. Noreen, N. A. Azizan, M. Farid, and Z. Ahmed, "Growth Opportunities, Capital Structure and Dividend Policy in Emerging Market: Indonesia Case Study," J. Asian Financ. Econ. Bus., vol. 7, no. 10, pp. 1–8, Oct. 2020, doi: 10.13106/jafeb.2020.vol7.no10.001.

[6] K. O. Olibe, Z. Rezaee, J. Flagg, and R. Ott, "Corporate diversification, debt maturity structures and firm value: The role of geographic segment data," Q. Rev. Econ. Financ., vol. 74, pp. 206–219, Nov. 2019, doi: 10.1016/j.qref.2019.01.011.

[7] A. Handoo and K. Sharma, "A study on determinants of capital structure in India," IIMB Manag. Rev., vol. 26, no. 3, pp. 170–182, Sep. 2014, doi: 10.1016/j.iimb.2014.07.009.

[8] D. Yazdanfar and P. Öhman, "Debt financing and firm performance: an empirical study based on Swedish data," J. Risk Financ., vol. 16, no. 1, pp. 102–118, Jan. 2015, doi: 10.1108/JRF-06-2014-0085.

[9] M. Alipour, M. F. S. Mohammadi, and H. Derakhshan, "Determinants of capital structure: An empirical study of firms in Iran," Int. J. Law Manag., vol. 57, no. 1, pp. 53–83, Feb. 2015, doi: 10.1108/IJLMA-01-2013-0004.

[10] R. Haron, "Do Indonesian firms practice target capital structure? A dynamic approach," J. Asia Bus. Stud., vol. 10, no. 3, pp. 318–334, 2016, doi: 10.1108/JABS-07-2015-0100.

[11] I. Moosa and L. Li, "Firm-specific factors as determinants of capital structure: Evidence from Indonesia," Rev. Pacific Basin Financ. Mark. Policies, vol. 15, no. 2, pp. 1–17, 2012, doi: 10.1142/S021909151150007X.

[12] L. Reinhard and S. Li, "A note on capital structure target adjustment – Indonesian evidence," Int. J. Manag. Financ., vol. 6, no. 3, pp. 245–259, 2010, doi: 10.1108/17439131011056242.

[13] P. Bunkanwanicha, J. Gupta, and R. Rokhim, "Debt and entrenchment: Evidence from Thailand and Indonesia," Eur. J. Oper. Res., vol. 185, no. 3, pp. 1578–1595, 2008, doi: 10.1016/j.ejor.2006.08.025.

[14] J. Sun, L. Ding, J. M. Guo, and Y. Li, "Ownership, capital structure and financing decision: Evidence from the UK," Br. Account. Rev., vol. 48, no. 4, pp. 448–463, 2016, doi: 10.1016/j.bar.2015.04.001.

[15] Y. Zulvia and M. Roza Linda, "The Determinants of Capital Structure in Manufacturing Companies Listed on the Indonesia Stock Exchange with the Firms' Size As a Moderating Variable," KnE Soc. Sci., vol. 3, no. 11, p. 715, 2019, doi: 10.18502/kss.v3i11.4046.

[16] L. Czerwonka and J. Jaworski, "Capital structure and its determinants in companies originating from two opposite sides of the European Union: Poland and Portugal," Econ. Bus. Rev., vol. 8, no. 1, pp. 24–49, 2022, doi: 10.18559/ebr.2022.1.3.

[17] S. Khan, U. Bashir, and M. S. Islam, "Determinants of capital structure of banks: evidence from the Kingdom of Saudi Arabia," Int. J. Islam. Middle East. Financ. Manag., vol. 14, no. 2, pp. 268–285, Apr. 2021, doi: 10.1108/IMEFM-04-2019-0135.

[18] M. Sikveland and D. Zhang, "Determinants of capital structure in the Norwegian salmon aquaculture industry," Mar. Policy, vol. 119, no. October 2019, p. 104061, Sep. 2020, doi: 10.1016/j.marpol.2020.104061.

[19] R. Yildirim, M. Masih, and O. I. Bacha, "Determinants of capital structure: evidence from Shari'ah compliant and non-compliant firms," Pacific Basin Financ. J., vol. 51, no. June 2017, pp. 198–219, Oct. 2018, doi: 10.1016/j.pacfin.2018.06.008.

[20] M. Touil and C. Mamoghli, "Institutional environment and determinants of adjustment speed to the target capital structure in the MENA region," Borsa Istanbul Rev., vol. 20, no. 2, pp. 121–143, 2020, doi: 10.1016/j.bir.2019.12.003.

[21] K. R. Subramanyam, Financial Statment Analysis, Eleventh E. McGraw-Hill Education, 2014.

[22] I. Ghozali, E. Handriani, and Hersugondo, "The Role of Sales Growth to Increase Firm Performance in Indonesia," Int. J. Civ. Eng. Technol., vol. 9, no. 7, pp. 1822–1830, 2018.

[23] T. H. Kwon, S. C. Bae, S. H. Park, T. Ho Kwon, S. C. Bae, and S. Hong Park, "The interactions of corporate sales growth and diversification strategy: Cross-country evidence," J. Int. Financ. Mark. Institutions Money, vol. 75, no. December 2020, p. 101422, Nov. 2021, doi: 10.1016/j.intfin.2021.101422.

[24] T. H. Brush, P. Bromiley, and M. Hendrickx, "The free cash flow hypothesis for sales growth and firm performance," Strateg. Manag. J., vol. 21, no. 4, pp. 455–472, Apr. 2000, doi: 10.1002/(SICI)1097-0266(200004)21:4<455::AID-SMJ83>3.0.CO;2-P.

[25] K. J. Murphy, "Corporate performance and managerial remuneration," J. Account. Econ., vol. 7, no. 1–3, pp. 11–42, Apr. 1985, doi: 10.1016/0165-4101(85)90026-6.

[26] T. J. Brailsford and D. Yeoh, "Agency Problems and Capital Expenditure Announcements," J. Bus., vol. 77, no. 2, pp. 223–256, Apr. 2004, doi: 10.1086/381274.

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DOI: https://doi.org/10.62754/joe.v3i8.5539

[27] M. Nezami, S. Worm, and R. W. Palmatier, "Disentangling the effect of services on B2B firm value: Trade-offs of sales, profits, and earnings volatility," Int. J. Res. Mark., vol. 35, no. 2, pp. 205–223, Jun. 2018, doi: 10.1016/j.ijresmar.2017.12.002.

[28] S. C. Myers, "The Capital Structure Puzzle," J. Finance, vol. 39, no. 3, pp. 574–592, Jul. 1984, doi: 10.1111/j.1540-6261.1984.tb03646.x.

[29] P. Alves, E. B. Couto, and P. M. Francisco, "Board of directors' composition and capital structure," Res. Int. Bus. Financ., vol. 35, pp. 1–32, Sep. 2015, doi: 10.1016/j.ribaf.2015.03.005.

[30] V. Mogha and B. Williams, "International Review of Financial Analysis Culture and capital structure : What else to the puzzle ?," Int. Rev. Financ. Anal., vol. 73, no. May 2020, pp. 1–19, 2021, doi: 10.1016/j.irfa.2020.101614.

[31] X. Huang, R. Kabir, and L. Zhang, "Government ownership and the capital structure of firms : Analysis of an institutional context from China q," China J. Account. Res., vol. 11, no. 3, pp. 171–185, 2018, doi: 10.1016/j.cjar.2018.07.001.

[32] A. Shahzad, M. Azeem, M. S. Nazir, X. V. Vo, and N. T. M. Linh, "The determinants of capital structure: Evidence from SAARC countries," Int. J. Financ. Econ., no. February, 2020, doi: 10.1002/ijfe.2132.

[33] F. Alnori and F. Alqahtani, "Capital structure and speed of adjustment in non-financial firms: Does sharia compliance matter? Evidence from Saudi Arabia," Emerg. Mark. Rev., vol. 39, pp. 50–67, 2019, doi: 10.1016/j.ememar.2019.03.008.

[34] A. Allini, S. Rakha, D. G. McMillan, and A. Caldarelli, "Pecking Order and Market Timing Theory in Emerging markets: The case of Egyptian firm," Res. Int. Bus. Financ., vol. 44, pp. 207–308, 2018, doi: 10.1016/j.ribaf.2017.07.098.

[35] I. Yousef, "The Determinants of Capital Structure: Evidence from GCC and UK Real Estate Sectors," Real Estate Manag. Valuat., vol. 27, no. 2, pp. 108–125, 2019, doi: 10.2478/remav-2019-0019.

[36] J. Dhaene, C. Van Hulle, G. Wuyts, F. Schoubben, and W. Schoutens, "Is The Capital Structure Logic of Corporate Finance Applicable to Insurers? Review & Analysis," J. Econ. Surv., vol. 31, no. 1, pp. 169–189, 2017, doi: 10.1111/joes.12129.

[37] M. C. Jensen and W. H. Meckling, "Theory of The Firm: Managerial Behavior, Agency Cost and Ownership Structure," J. financ. econ., vol. 3, no. 4, pp. 305–360, 1976, doi: 10.1177/0018726718812602.

[38] M. A. Elbannan, "Stock market liquidity, family ownership, and capital structure choices in an emerging country," Emerg. Mark. Rev., vol. 33, pp. 201–231, 2017, doi: 10.1016/j.ememar.2017.11.001.

[39] S. Bhagat, B. Bolton, and A. Subramanian, "Manager characteristics and capital structure: Theory and evidence," J. Financ. Quant. Anal., vol. 46, no. 6, pp. 1581–1627, 2011, doi: 10.1017/S0022109011000482.

[40] T. Ahsan and M. A. Qureshi, "The impact of financial liberalization on capital structure adjustment in Pakistan: a doubly censored modelling," Appl. Econ., 2017, doi: 10.1080/00036846.2016.1276276.

[41] Y. Feng, A. Hassan, and A. A. Elamer, "Corporate governance, ownership structure and capital structure: evidence from Chinese real estate listed companies," Int. J. Account. Inf. Manag., vol. 28, no. 4, pp. 759–783, 2020, doi: 10.1108/IJAIM-04-2020-0042.

[42] X. Niu, "Theoretical and Practical Review of Capital Structure and its Determinants," Int. J. Bus. Manag., vol. 3, no. 3, pp. 133–139, Feb. 2009, doi: 10.5539/ijbm.v3n3p133.

[43] G. Gómez, A. Mena Rivas, and E. R. Lizarzaburu Bolaños, "The determinants of capital structure in Peru," Acad. Rev. Latinoam. Adm., vol. 27, no. 3, pp. 341–354, Nov. 2014, doi: 10.1108/ARLA-01-2014-0007.

[44] M. Sikveland, J. Xie, and D. Zhang, "Determinants of capital structure in the hospitality industry: Impact of clustering and seasonality on debt and liquidity," Int. J. Hosp. Manag., vol. 102, no. January, p. 103172, Apr. 2022, doi: 10.1016/j.ijhm.2022.103172.

[45] N. Hewa Wellalage and S. Locke, "Impact of ownership structure on capital structure of New Zealand unlisted firms," J. Small Bus. Enterp. Dev., vol. 22, no. 1, pp. 127–142, Feb. 2015, doi: 10.1108/JSBED-09-2011-0004.

[46] C. R. Chen and T. L. Steiner, "Managerial Ownership and Agency Conflicts : A Nonlinear Simultaneous Equation Analysis of Managerial Dividend Policy," Financ. Rev., vol. 34, no. 1, pp. 119–136, 1999, doi: 10.1111/j.1540-6288.1999.tb00448.x.

[47] A. Rahmawati, M. Moeljadi, Djumahir, and Sumiati, "The effects of managerial ownership , leverage , dividend policy in minimizing agency problem," Invest. Manag. Financ. Innov., vol. 15, no. 4, pp. 273–282, Dec. 2018, doi: 10.21511/imfi.15(4).2018.22.

[48] W. L. Tate, L. M. Ellram, L. Bals, E. Hartmann, W. Van Der Valk, and W. van der Valk, "An Agency Theory perspective on the purchase of marketing services," Ind. Mark. Manag., vol. 39, no. 5, pp. 806–819, 2010, doi: 10.1016/j.indmarman.2009.08.005.

[49] P. Wright, A. Mukherji, and M. J. Kroll, "A reexamination of agency theory assumptions: extensions and extrapolations," J. Socio. Econ., vol. 30, no. 5, pp. 413–429, Sep. 2001, doi: 10.1016/S1053-5357(01)00102-0.

[50] J. Bendickson, J. Muldoon, E. W. Liguori, and P. E. Davis, "Agency theory: background and epistemology," J. Manag. Hist., vol. 22, no. 4, pp. 437–449, Sep. 2016, doi: 10.1108/JMH-06-2016-0028.

[51] D. Guo, X. Hua, and K. Jiang, "Agency and strategic contracts: Theory and evidence from R&D agreements in the pharmaceutical industry," Int. J. Ind. Organ., vol. 54, pp. 37–64, 2017, doi: 10.1016/j.ijindorg.2017.06.007.

[52] B. W. Benson, Y. Chen, H. L. James, and J. C. Park, "So far away from me: Firm location and the managerial ownership effect on firm value," J. Corp. Financ., vol. 64, no. February, p. 101658, 2020, doi: 10.1016/j.jcorpfin.2020.101658.

[53] N. Jadiyappa, N. Saikia, and B. Parikh, "Managerial Stock Ownership and Debt Diversification," Int. Rev. Financ., vol. 20, no. 3, pp. 747–755, Sep. 2018, doi: 10.1111/irfi.12229.

[54] Y. G. Shan, I. Troshani, and A. Tarca, "Managerial ownership, audit firm size, and audit fees: Australian evidence," J. Int. Accounting, Audit. Tax., vol. 35, pp. 18–36, 2019, doi: 10.1016/j.intaccaudtax.2019.05.002.

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DOI: https://doi.org/10.62754/joe.v3i8.5539

[55] J. A. Muñoz Mendoza, S. M. Sepúlveda Yelpo, C. L. Veloso Ramos, and C. L. Delgado Fuentealba, "Monitoring and managerial discretion effects on agency costs: Evidence from an emerging economy," BAR - Brazilian Adm. Rev., vol. 18, no. 1, pp. 1–24, 2021, doi: 10.1590/1807-7692bar2021190112.

[56] D. H. Chen, C. Da Chen, J. Chen, and Y. F. Huang, "Panel data analyses of the pecking order theory and the market timing theory of capital structure in Taiwan," Int. Rev. Econ. Financ., vol. 27, pp. 1–13, 2013, doi: 10.1016/j.iref.2012.09.011.

[57] M. Y. Chen, "Adjustments in managerial ownership and changes in firm value," Int. Rev. Econ. Financ., vol. 25, pp. 1–12, 2013, doi: 10.1016/j.iref.2012.04.008.

[58] M. Beyer, D. Czarnitzki, and K. Kraft, "Managerial ownership, entrenchment and innovation," Econ. Innov. New Technol., vol. 21, no. 7, pp. 679–699, Oct. 2012, doi: 10.1080/10438599.2011.639978.

[59] P. Jiraporn and K. Nimmanunta, "Estimating the effect of board independence on managerial ownership using a quasi-natural experiment," Appl. Econ. Lett., vol. 25, no. 17, pp. 1237–1243, Oct. 2018, doi: 10.1080/13504851.2017.1412072.

[60] A. Berķe-Berga, I. Dovladbekova, and M. Ābula, "Managerial Ownership and Firm Performance: Evidence of Listed Companies in The Baltics," Polish J. Manag. Stud., vol. 15, no. 2, pp. 273–283, 2017, doi: 10.17512/pjms.2017.15.2.25.

[61] Y. Rhou, Y. Li, and M. Singal, "Does managerial ownership influence franchising in restaurant companies?," Int. J. Hosp. Manag., vol. 78, no. November 2018, pp. 122–130, 2019, doi: 10.1016/j.ijhm.2018.11.019.

[62] A. K. Rajverma, R. Arrawatia, A. K. Misra, and A. Chandra, "Ownership structure influencing the joint determination of dividend, leverage, and cost of capital," Cogent Econ. Financ., vol. 7, no. 1, p. 1600462, Jan. 2019, doi: 10.1080/23322039.2019.1600462.

[63] T. P. V. Le and K. Tannous, "Ownership Structure and Capital Structure: A Study of Vietnamese Listed Firms," Aust. Econ. Pap., vol. 55, no. 4, pp. 319–344, Dec. 2016, doi: 10.1111/1467-8454.12089.

[64] N. Ahmed Sheikh and Z. Wang, "Effects of corporate governance on capital structure: empirical evidence from Pakistan," Corp. Gov. Int. J. Bus. Soc., vol. 12, no. 5, pp. 629–641, Oct. 2012, doi: 10.1108/14720701211275569.

[65] L. Ma and Y. Tang, "Portfolio Manager Ownership and Mutual Fund Risk Taking," Manage. Sci., vol. 65, no. 12, pp. 5518–5534, Dec. 2019, doi: 10.1287/mnsc.2018.3104.

[66] R. Zeitun and G. Tian, "The determinants of capital structure: The case of long-term debt constraint for Jordanian firms," Corp. Ownersh. Control, vol. 6, no. 1 A, pp. 22–37, 2008, doi: 10.22495/cocv6i1p3.

[67] A. Upneja and M. Dalbor, "The Long-Term Debt Decision of U.S. Casino Firms," J. Hosp. Financ. Manag., vol. 17, no. 2, pp. 55–72, Sep. 2009, doi: 10.1080/10913211.2009.10653877.

[68] H. Kamardin, "Managerial Ownership and Firm Performance: The Influence of Family Directors and Non-family Directors," in Ethics, Governance and Corporate Crime: Challenges and Consequences, vol. 6, 2014, pp. 47–83.

[69] T. Ahsan, M. Wang, and M. A. Qureshi, "Firm, industry, and country level determinants of capital structure: evidence from Pakistan," South Asian J. Glob. Bus. Res., vol. 5, no. 3, pp. 362–384, Oct. 2016, doi: 10.1108/SAJGBR-05-2015-0036.

[70] B. Köksal and C. Orman, "Determinants of capital structure: evidence from a major developing economy," Small Bus. Econ., vol. 44, no. 2, pp. 255–282, 2015, doi: 10.1007/s11187-014-9597-x.

[71] S. Kumar., S. Colombage., and P. Rao, "Article information : Research on capital structure determinants: a review and future directions," Int. J. Manag. Financ., vol. 13, no. 2, pp. 106–132, 2017, doi: 10.1108/IJMF-09-2014-0135.

[72] J. Abor and N. Biekpe, "How do we explain the capital structure of SMEs in sub-Saharan Africa ? Evidence from Ghana," J. Econ. Stud., vol. 36, no. 1, pp. 83–97, 2009, doi: 10.1108/01443580910923812.

[73] A. Y. H. H. Saif-Alyousfi, R. Md-Rus, ..., K. N. Taufil-Mohd, H. Mohd Taib, and H. K. Shahar, "Determinants of capital structure: evidence from Malaysian firms," Asia-Pacific J. Bus. Adm., vol. 12, no. 3/4, pp. 283–326, Jun. 2020, doi: 10.1108/APJBA-09-2019-0202.

[74] C. R. Chen and T. L. Steiner, "Tobin ' s Q , Managerial Ownership , and Analyst Coverage A Nonlinear Simultaneous Equations Model," J. Econ. Bus., vol. 52, pp. 365–382, 2000, doi: 10.1016/S0148-6195(00)00024-2.

[75] F. Chittenden, G. Hall, and P. Hutchinson, "Small firm growth, access to capital markets and financial structure: Review of issues and an empirical investigation," Small Bus. Econ., vol. 8, no. 1, pp. 59–67, 1996, doi: 10.1007/BF00391976.

[76] D. N. Gujarati and D. C. Porter, Dasar-dasar Ekonometrika, Edisi 5. 2015.

[77] M. E. Sobel, "Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models," Sociol. Methodol., vol. 13, no. 1982, pp. 290–312, 1982, doi: 10.2307/270723.

[78] B. T. Matemilola, A. N. Bany-Ariffin, W. N. W. Azman-Saini, and A. M. Nassir, "Does top managers' experience affect firms' capital structure?," Res. Int. Bus. Financ., vol. 45, no. October 2016, pp. 488–498, Oct. 2018, doi: 10.1016/j.ribaf.2017.07.184.

[79] N. Shil, M. N. Hossain, M. N. Ullah, M. N. Hossan, and M. N. Ullah, "Exploring the underlying factors affecting capital structure decision: A quantitative analysis," J. Corp. Account. Financ., vol. 30, no. 4, pp. 69–84, 2019, doi: 10.1002/jcaf.22404.

[80] S. Jarallah, A. S. Saleh, and R. Salim, "Examining pecking order versus trade-off theories of capital structure: New evidence from Japanese firms," Int. J. Financ. Econ., vol. 24, no. 1, pp. 204–211, Jan. 2019, doi: 10.1002/ijfe.1657.

[81] X. Wang, J. Wang, and L. Johnson, "Geography and capital structure," Can. J. Adm. Sci., vol. 35, no. 1, pp. 107–122, Mar. 2018, doi: 10.1002/cjas.1383.

[82] G. Cassar and S. Holmes, "Capital structure and financing of SMEs: Australian evidence," Account. Financ., vol. 43, no. 2, pp. 123–147, Jul. 2003, doi: 10.1111/1467-629X.t01-1-00085.

[83] S. M. Albring and X. Xu, "Management earnings forecasts, managerial incentives, and risk-taking," Adv. Account., vol. 42, no. April, pp. 48–69, 2018, doi: 10.1016/j.adiac.2018.07.005.

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[84] R. Vijayakumaran, "Impact of managerial ownership on investment and liquidity constraints: Evidence from Chinese listed companies," Res. Int. Bus. Financ., vol. 55, no. August 2020, p. 101321, 2021, doi: 10.1016/j.ribaf.2020.101321.

[85] R. V. D. Giarto and F. Fachrurrozie, "The Effect of Leverage, Sales Growth, Cash Flow on Financial Distress with Corporate Governance as a Moderating Variable," Account. Anal. J., vol. 9, no. 1, pp. 15–21, 2020, doi: 10.15294/aaj.v9i1.31022.

[86] U. Von Lilienfeld-Toal and S. Ruenzi, "CEO ownership, stock market performance, and managerial discretion," J. Finance, vol. 69, no. 3, pp. 1013–1050, 2014, doi: 10.1111/jofi.12139.

[87] Y. W. Park, Z. Selvili, and M. H. Song, "Large outside blockholders as monitors: Evidence from partial acquisitions," Int. Rev. Econ. Financ., vol. 17, no. 4, pp. 529–545, Oct. 2008, doi: 10.1016/j.iref.2007.05.006.

[88] A. P. Matias Gama and J. Manuel Mendes Galvão, "Performance, valuation and capital structure: survey of family firms," Corp. Gov. Int. J. Bus. Soc., vol. 12, no. 2, pp. 199–214, Apr. 2012, doi: 10.1108/14720701211214089.

[89] A. I. Muslim and D. Setiawan, "Information asymmetry, ownership structure and cost of equity capital: The formation for open innovation," J. Open Innov. Technol. Mark. Complex., vol. 7, no. 1, pp. 1–17, 2021, doi: 10.3390/joitmc7010048.

[90] W. Abbassi, A. I. Hunjra, S. M. Alawi, and R. Mehmood, "The Role of Ownership Structure and Board Characteristics in Stock Market Liquidity," Int. J. Financ. Stud., vol. 9, no. 4, 2021, doi: 10.3390/ijfs9040074.

[91] M. Khafid, R. Prihatni, and I. E. Safitri, "The Effects of Managerial Ownership, Institutional Ownership, and Profitability on Capital Structure: Firm Size as the Moderating Variable," Int. J. Financ. Res., vol. 11, no. 4, p. 493, Jul. 2020, doi: 10.5430/ijfr.v11n4p493.

[92] M. A. Salsiah, M. S. Norman, and H. Mohamat Sabri, "Ownership structure and earnings management in Malaysian listed companies: The size effect," Asian J. Bus. Account., vol. 1, no. 2, pp. 89–116, 2008.

[93] J. R. Chung, M. K. Cho, and H. Y. Lee, "Association between managerial stock ownership and firm efficiency," Int. J. Accounting, Audit. Perform. Eval., vol. 15, no. 4, pp. 378–409, 2019, doi: 10.1504/IJAAPE.2019.106421.

[94] N. Nurleni, A. Bandang, D. Darmawati, and A. Amiruddin, "The effect of managerial and institutional ownership on corporate social responsibility disclosure," Int. J. Law Manag., vol. 60, no. 4, pp. 979–987, Jul. 2018, doi: 10.1108/IJLMA-03-2017-0078.