



Factors Influencing Capital Structure: Insights from Dar es Salaam Stock Exchange (DSE) Non-Financial Companies

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Article History

Received: 2025-06-20

Revised: 2025-12-19

Accepted: 2025-12-23

Published: 2025-12-31

Keywords

Assets

Capital structure

Liquidity

Profitability

How to cite:

Mbegu, S., & Dossa, J. (2025). Factors Influencing Capital Structure: Insights from Dar es Salaam Stock Exchange (DSE) Non-Financial Companies. *Research Journal of Business and Finance*, 4(2), 146-157.

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Abstract

This study examined the factors influencing the capital structure of non-financial companies listed on the Dar es Salaam Stock Exchange (DSE). Using the pecking order theory and the trade-off theory, it specifically examined how firms' liquidity, tangible assets, and profitability affect leverage. Using a cross-sectional research approach, data from 11 purposefully chosen DSE-listed non-financial companies over a 20-year period (2000–2020) were analysed using a fixed-effect panel data regression model. The findings show that leverage is significantly impacted negatively by profitability (-0.049, $p < 0.01$). Leverage is also observed to be negatively impacted by liquidity (-0.15, $P < 0.05$). Conversely, leverage is strongly and favourably impacted by asset tangibility (coefficient = 0.116, $p < 0.01$). These findings indicate that the non-financial companies listed in DSE mainly use internal financing, as it fits the pecking order theory, and tangible assets allow the companies to take on more debt, as it fits the theory of trade-offs. The paper concludes that profitability is an important determinant of leverage, which contributes to firms giving preference to internal funds. Managers have been encouraged to concentrate on generating profits and to manage concrete resources strategically to maximise their capital structure.

Introduction

Capital structure remains a central area of financial management, a topic of discussion since the pioneering work of Modigliani & Miller (1958). The debate on whether a particular combination of equity-debt is optimal in business profitability and the factors influencing this optimal capital structure has so far become a subject of much discussion in the corporate finance literature (Myers & Majluf, 1984). Capital structure is the mix of debt and equity used to finance a company's investments (Brigham & Houston, 2024). Equity financing is the issuance of shares to establish partial ownership by a public or privately owned entity and, in the process, to award equity holders a share of profits in the form of dividends (Brigham & Houston, 2024). On the other hand, debt refers to borrowing funds that will be repaid in the future, typically with interest (Olufemi, Abu & Olugbenga, 2018; Swanson, Srinidhi & Seetharaman, 2003; Ngghabi, 2012).

Companies in the non-financial sector, such as manufacturing, agriculture, mining, telecommunications, and aviation, are essential to the economic growth of both developed and emerging economies, as they contribute significantly to national gross domestic product (GDP) (World Bank, 2023; OECD, 2023). This means that their choices regarding capital structure require careful consideration (Haragusi, Chend & Smeet, 2016). High capital costs may result from poor capital structure choices, thereby reducing shareholders' equity (Sheikh & Wang, 2011). Financial management to balance capital requirements is one of the most crucial aspects of the current



competitive environment (Kurniasari, Murhadi & Utami, 2016). Nevertheless, there is debate over the feasibility of an optimal capital structure, and questions have been raised about whether a business can influence its share price and capital expenditures through a shift in sources of funding (Brigham & Houston, 2024).

The literature has consistently shown that both internal and external finance influence a company's capital base (Strebulaev, 2023). Capital structure is generally determined by a company's liquidity, asset tangibility, and profitability ratios (Strebulaev, 2023; Hailegebreal & Wang, 2019). In the Tanzanian context, the determinants of capital structure for listed companies on the DSE, as analysed by Kapaya et al. (2018), include profitability ratios, size, and growth opportunities.

The Dar es Salaam Stock Exchange (DSE) has grown rapidly since its incorporation in 1996 and the commencement of operations in 1998 (African Financials, 2023). This is evident in the constant growth of the number of listed companies, which reached 28 (DSE, 2021; African Financials, 2023). As Tanzania's sole capital market, the DSE lists many non-financial corporations across industries such as agriculture, tourism, mining, telecommunications, aviation, and industrial companies, thereby providing broad economic representation (DSE, 2021). The DSE comprises 15 non-financial companies, specifically, the companies include Tanzania Breweries Limited (TBL), The Coca-Cola Company (TCC), Tanzania Portland Cement Company (TPCC), East African Breweries Limited (EABL), Tanzania Cigarette Company Limited (TCCL), Vodacom (VODA), Swala (SWALA), Precision Air Services (PAL), Kenya Airways (KA), Uganda Breweries Limited (USL), Tanzania Tea Packers Limited (TATEPA), and the Nation Media Group (NMG) (DSE, 2021).

Theories Underpinning and Hypotheses Development

Profitability and Leverage

According to the Pecking Order Theory, companies' financial constraints are understood through information asymmetry between managers/owners and investors (Myers & Majluf, 1984; Lemmon & Zender, 2010; Bharath et al., 2009). As a result, businesses have a pecking order of sources of finance. Their initial capital source is internal capital (retained profits); the second source is low-risk leverage (typically short-term debt); the third source is external equity (Frank et al., 2021). The higher a business's profitability, the greater its likelihood of accumulating retained earnings, which in turn reduces its need for external funding (Frank et al., 2021; González & González, 2011).

In China, Chen et al. (2014) and Pakistan, Nadeem et al. (2011) empirically established a significant correlation between the leverage and profitability. On the same note, Gomez, Rivas, et al. (2014) found evidence that profitability positively affects leverage in Peru. Chang et al. (2014) in China reported profitability as the most common factor, indicating the need to accumulate internal capital due to severe financial constraints.

But recent research has both positive and negative evidence. India Sofat and Singh (2017) found that profitability was negatively associated with leverage. Likewise, M'ng, Rahman, and Sannacy (2017) observed a substantial negative impact of profitability on capital structure in Malaysia and Singapore, but not in Thailand. These results are consistent with Fred (2015) in Tanzania, who found that leverage was negatively correlated with profitability in some companies, implying a preference for internal funds. Based on Pecking Order Theory and evidence from literature, the following hypothesis was developed:

H1: There is a negative relationship between profitability and leverage



Tangibility and Leverage

Tangible assets may be used as collateral in the event of a company's bankruptcy, as creditors' interests are protected (Frank & Goyal, 2009). In addition to dealing with litigation costs of bond utilisation, fixed assets can also be utilised to curb agency issues (Degryse, de Goeij, & Kappert, 2012). Companies with large amounts of tangible assets that can be used as collateral, which provides greater access to external funds, tend to have higher debt levels than companies with fewer tangible assets (Cortina et al., 2023; Almeida & Campello, 2007). In turn, the Trade-off Theory suggests a positive correlation between the tangibility and leverage (Dang et al., 2020; Frank & Goyal, 2009).

Latest research still indicates mixed outcomes. Dang et al. (2022) in Europe found that tangibility was one of the business characteristics that positively influenced capital structure decisions. Nonetheless, in a study conducted by Umer (2014) in Ethiopia, an inconsistent finding emerged: asset tangibility was negatively associated with leverage. In Tanzania, Mushi and Kihaule (2022) examined the determinants of capital structure among listed non-financial firms and found that asset tangibility was a significant determinant, whereas company size and liquidity were not.

More recent findings on the role of African companies in tangibility and leverage exhibit mixed outcomes; for example, a study of African-listed companies by Mofor (2024) suggests that investment tangibility and financial leverage are negatively correlated, whereas other studies confirm that they are positively related. From Trade-off Theory and existing literature, the hypotheses were developed as:

H2: There is a positive relationship between asset tangibility and leverage.

Liquidity and Leverage

The Pecking Order Principle implies that highly liquid companies can borrow less (Drobetz et al., 2018; Chikolwa, 2017). Indeed, managers may also use excess assets to the advantage of equity holders at the expense of bondholders, thereby heightening the agency costs of debt (Al-Najjar, 2023; Bao et al., 2022). Therefore, a negative association of liquidity and leverage is anticipated.

Empirical data remains inconclusive. In Pakistan, Nadeem and Zongjun (2011) found a negative relationship between the leverage ratio and liquidity levels. The article by Teddy (2015) implied that the firm's independent variables, including asset tangibility, were not significantly associated with leverage; therefore, corporations utilise internal funds. However, in Nigeria, Chandrasekharan (2012) found that a firm's tangibility significantly and positively influenced its capital structure. Recent studies of the determinants of capital structure in the African context, and Tanzania in particular, continue to debate the direction of this relationship; some studies have focused on liquidity management within the banking sector as it relates to leverage (Kipesha, 2021; Shikumo, 2018; Fitch Solutions, 2025). Hence, the following hypotheses are developed:

H3: There is a negative relationship between liquidity and leverage.

Research Methods

Sample Description

The study employed a cross-sectional research design, an observational study that captures a "snapshot" of a specific population at a single point in time (Dubey & Kothari, 2022). All non-financial companies listed on the DSE constituted the target population, representing a broad range of sectors, including agriculture, tourism, mining, telecommunications, aviation, and industry. These companies made up the population of 15 (DSE, 2021). Because the population was very small (only 15 companies) in order to reduce sampling error with such a small population, a researcher decided to use the whole population (census) (Dubey & Kothari, 2022). However, the researcher applied filters (judgemental



criteria) to select a specific, relevant subset (Dubey & Kothari, 2022). Judgemental sampling was employed in the selection of companies that were listed between 2000 and 2020 and released their annual financial information (Dubey & Kothari, 2022). Finally, 11 non-financial firms were used, namely TBL, TCC, TOL, TPCC, TTP, EABL, TCCL, PAL, KA, SWIS, and USL over 20 years.

Variable Description

Table 1: List of Variables

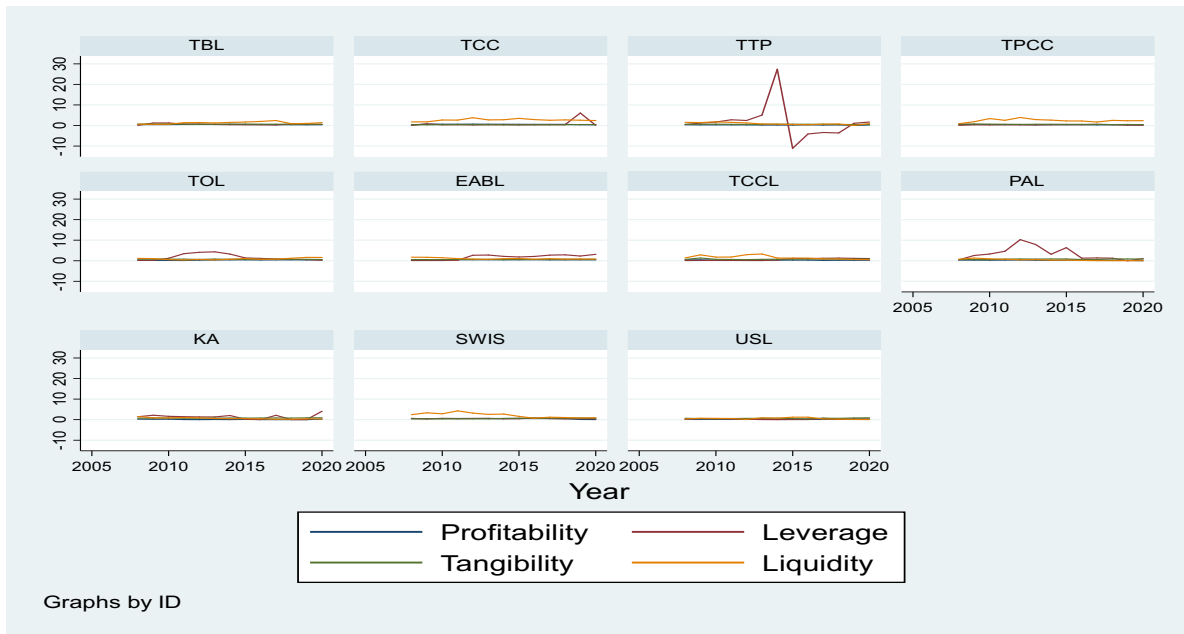
Dependent Variable: 1. Leverage		
Indicator	Unit of Measurement	Source & Rationale
1. Debt to Equity Ratio	Total Debt / Total Shareholders' Equity	Kapaya et al. (2018), Fred (2020), Sofat & Singh (2017). This is a risk-focused measure. It shows the proportion of financing coming from creditors (debt) versus owners (equity). A higher ratio indicates more financial leverage and higher risk.
2. Debt to Asset Ratio	Total Debt / Total Assets	Kapaya et al. (2018), Fred (2020), Implied from the table. This is a solvency-focused measure. It indicates what percentage of a company's assets are financed by debt. It's broader than D/E and is often used in cross-industry comparisons.
Independent Variables: 1. Profitability (PROF)		
Indicator	Unit of Measurement	Source & Rationale
Gross Profit Margin (GPM).	Gross Profit / Net Sales	Kapaya et al. (2018), Sofat & Singh (2017). Measures operating efficiency before administrative and financial costs. According to Pecking Order Theory, more profitable firms should use <i>less</i> debt (they fund projects internally).
Return on Capital Employed (ROCE).	PBIT / (Total Assets - Current Liabilities)	Chalu et al. (2019); Ming, Rahman & Sunnay (2017). Measures overall efficiency in generating profits from all long-term capital. It's a pre-financing measure, making it a good predictor for financing decisions.
Return on Assets (ROA).	PBIT / Total Assets	Ming, Rahman & Sunnay (2017). Measures management's efficiency in using assets to generate earnings. Like ROCE, it's a key variable in testing Pecking Order vs. Trade-Off theories.
Independent Variables: 2. Tangibility (TANG)		
Indicator	Unit of Measurement	Source & Rationale
Asset Tangibility	Net Fixed Assets / Total Assets	Chalu et al. (2019); Masele (2016). A core variable in capital structure studies. Tangible assets (like plant, machinery) can serve as collateral, reducing lender risk. According to Trade-Off Theory, firms with more tangible assets should have higher debt capacity and use more debt.
Independent Variables: 3. Liquidity (LIQ)		
Indicator	Unit of Measurement	Source & Rationale
Current Ratio	Current Assets / Current Liabilities	Ming, Rahman & Sunnay (2017); Chalu et al. (2019). Measures short-term financial health and the ability to cover short-term obligations. The expected relationship with leverage is ambiguous:
		• High liquidity might mean less need for short-term debt (negative relationship).
		• Conversely, high liquidity could signal strong collateral for more debt (positive relationship). It's an important control variable.



Data Analysis

This research was quantitative in nature. The quantitative information was gathered using Microsoft Excel and analysed using Stata 11. A panel regression analysis was used to examine the determinants of the capital structure of non-financial firms in Tanzania. Before estimation, the time series data were plotted to identify trends, seasonality, and stationarity (Wagofya, 2019). As indicated in Figure 4.1, all variables were stationary, with fluctuations around constant means and variances in asset profitability, tangibility, leverage, and liquidity ratios over time.

Figure 1: Time Series Plot for Listed Non-Financial Companies in DSE



Econometrics Model

A Hausman test was performed to determine whether a fixed-effects or a random-effects model is the most appropriate for the regression analysis. The regression pattern was based on the work of Fauzi, Basyith, and Idris (2013), Gomez et al. (2014), and Umer (2014) and was defined as follows.:

$$CS_{it} = \beta_0 + \beta_1PROF_{it} + \beta_2TANG_{it} + \beta_3LIQ_{it} + \epsilon_{it} \dots \dots \dots (1)$$

Where:

CS_{it} = Capital structure of firm i at time t, as expressed by the debt to equity ratio

β₀ = intercept, β₁- β₃ = Coefficients of Parameters

PROF_{it} = Profitability of firm i at time t

TANG_{it} = Tangibility of firm i at time t

LIQ_{it} = Liquidity of firm i at time t

ε_{it} = error term

To ensure consistency of estimates, the following random-effect regression model was also considered:

$$CS_{it} = \alpha + \beta_1PROF_{it} + \beta_2TANG_{it} + \beta_3LIQ_{it} + \mu_{it} + \epsilon_{it} (2)$$

Where:

- μ_{it} - Between-entity errors
- ε_{it} - Within-entity error
- α - is the unknown intercept for each entity



- β_1 – β_3 – are coefficients of independent variables
- CSit – represents capital structure

Results and Discussion

Table 2: Descriptive Statistics

Table 2. Descriptive Statistics						
Variable		Mean	Std. Dev.	Min	Max	Observations
ID	Overall	6	3.173393	1	11	N = 143
	Between		3.316625	1	11	n = 11
	Within		0	6	6	T = 13
Year	Overall	2014	3.754809	2008	2020	N = 143
	Between		0	2014	2014	n = 11
	Within		3.754809	2008	2020	T = 13
LEV	Overall	1.181906	2.967432	-11.0942	27.3828	N = 143
	Between		0.916423	0.271362	3.358769	n = 11
	Within		2.834924	-11.5739	26.90311	T = 13
LEV	Overall	1.181906	2.967432	-11.0942	27.3828	N = 143
	Between		0.916423	0.271362	3.358769	n = 11
	Within		2.834924	-11.5739	26.90311	T = 13
PROF	Overall	0.355639	0.161916	0.0059	0.6808	N = 143
	Between		0.137648	0.109939	0.560546	n = 11
	Within		0.094187	-0.05975	0.525785	T = 13
TANG	Overall	0.651679	0.149437	0.3314	1.3655	N = 143
	Between		0.113608	0.403531	0.798915	n = 11
	Within		0.102545	0.429164	1.218264	T = 13
LIQ	Overall	1.337367	0.955385	0.0454	4.2825	N = 143
	Between		0.772458	0.442315	2.675208	n = 11

The sample firms (Table 2) exhibited a debt-focused capital structure, with high average leverage (mean = 1.18) and substantial variation (SD = 2.97), indicating significant variation in debt levels. Profitability was moderately consistent (mean 0.36, SD 0.16). Asset composition was predominantly tangible (mean = 0.65), with minor differences across companies. Liquidity was generally adequate (mean 1.34), yet highly variable (SD 0.96), revealing stark differences in firms' short-term financial resilience. Overall, while these companies relied heavily on debt and fixed assets, their liquidity and specific leverage ratios differed substantially, reflecting varied financial strategies and risk profiles within the group.

Pairwise Correlation

Pairwise correlation was conducted among leverage, profitability, tangibility, and liquidity to examine their relationships. This method is commonly employed to detect multicollinearity. Table 3 presents the pairwise correlation values for each variable.



Table 3: Pairwise Correlations

Variables	(LEV)	(PROF)	(TANG)	(LIQ)	(L_LEV)	(L_PROF)	(L_TANG)	(L_LIQ)
LEV	1.000							
PROF	-0.06**	1.000						
TANG	0.128**	-0.437**	1.000					
LIQ	-0.15**	0.620***	-0.557***	1.000				
L_LEV	0.075	-0.076	0.131	-0.151*	1.000			
L_PROF	-0.061	0.868***	-0.425***	0.620***	-0.065	1.000		
L_TANG	0.097	-0.462**	0.718***	-0.550***	0.121	-0.425***	1.000	
L_LIQ	-0.130	0.555***	-0.554***	0.844***	-0.143*	0.620***	-0.527***	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3 shows the pairwise correlations for the variables included in the model. Tangibility has a positive, albeit weak, association with leverage ($p < 0.05$). Similarly, profitability exhibits a weak negative association with leverage ($p < 0.05$). Furthermore, there is a negative relationship between liquidity and leverage, implying that higher liquidity is associated with lower leverage.

Regression Results

The Influence of a Firm’s Profitability on Leverage

Table 4: Regression Results for Fixed Model (Profitability)

Leverage	Coef.	St.Err.	T-value	P-value	[95% Conf Interval]	Sig
Profitability	-0.049	0.017	-2.82	0.005	-0.015 0.083	***
Lag Profitability	0.010	0.004	2.57	0.010	0.002 0.017	**
Constant	1.219	0.279	4.37	0.000	0.672 1.766	***
Mean dependent var	0.674		SD dependent var		0.168	
R-squared	0.545		Number of obs		2182.000	
F-test	8.126		Prob > F		0.000	
Akaike crit. (AIC)	-1549.266		Bayesian crit. (BIC)		-1523.849	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 4 shows a substantial negative correlation between profitability and leverage. Leverage decreases by -0.049 units for every unit rise in profitability ($p = 0.005$). Businesses with higher profits utilise a lot less debt. This shows that companies prefer to finance investments using internal retained earnings rather than external loans, which provides significant support for the Pecking Order Theory.

The Influence of Firm’s Asset Tangibility on Leverage

Table 5: Regression Results for Fixed Model (Asset Tangibility)

Leverage	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
Asset Tangibility	0.116	.025	4.75	0.000	0.068 0.164	***
Lag Asset Tangibility	0.060	.025	2.37	0.018	0.010 0.109	**
Constant	-0.731	.396	-1.85	0.065	-1.509 0.046	*
Mean dependent var	0.616		SD dependent var		0.259	
R-squared	0.363		Number of obs		1192.000	
F-test	112.312		Prob > F		0.000	
Akaike crit. (AIC)	-713.025		Bayesian crit. (BIC)		-687.608	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$



Table 5 shows that asset tangibility, leverage, and significance are positively correlated. Leverage increases by 0.116 units for every unit rise in asset tangibility ($p=0.000$). Businesses with more material assets, such as real estate and machinery, have greater debt levels. Because tangible assets can be used as security, debt financing is less expensive and hazardous, supporting the Trade-Off Theory.

The Influence of a Firm’s Liquidity on Leverage

Table 6: Regression Results for Fixed model

Leverage	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Liquidity	-0.315	0.043	-7.41	0.000	-0.232	-0.399	***
Lag Liquidity	0.011	0.010	1.16	0.248	-0.008	0.030	
Constant	2.310	0.687	3.36	0.001	0.962	3.659	***
Mean dependent var		0.955	SD dependent var			0.375	
R-squared		0.469	Number of obs			1192.000	
F-test		14.539	Prob > F			0.000	
Akaike crit. (AIC)		600.899	Bayesian crit. (BIC)			626.316	

*** $p<.01$, ** $p<.05$, * $p<.1$

Table 6: There is a substantial negative correlation between leverage and liquidity. Leverage decreases by -0.315 units for every unit increase in liquidity ($p=0.000$). Businesses that have greater liquidity that is, more cash and cash equivalents use a lot less debt. Because liquid assets offer an internal funding source and lessen the need for borrowing, this is also consistent with the Pecking Order Theory.

Discussion of Hypotheses

Profitability and Leverage

The regression results in Table 4 demonstrindicate that the leverage ratio is negatively affected by current profitability ($P<0.01$), with a coefficient of -0.049. This directly supports Hypothesis 1: “There is a negative relationship between profitability and leverage.” The negative coefficient indicates that leverage decreases by 0.049 percentage points for each one percentage-point increase in profitability. This overwhelming negative correlation between current profitability and leverage is a strong indication that the Pecking Order Theory is the dominant force behind the financing decisions of DSE-listed non-financial companies. This theory assumes that companies initially seek to fund their projects with internally generated funds (retained earnings) and subsequently turn to external funding. The results are consistent with the findings of other studies in emerging economies which also propose the pecking order theory of profitability, including the studies by Arsov and Naumoski (2016), Guner (2016), Mng et al. (2017) of Malaysia and Singapore, and Sofat and Singh (2017) of India, as well as Umer (2014) of Ethiopia. The variance it shares with other studies, such as Afza and Hussain (2011) and Chandrasekharan (2012), which support the trade-off theory, illustrates regional and contextual variation in the development and corporate financing practices of capital markets. In a developing economy such as Tanzania, where foreign sources may be more expensive or less available, it is more feasible and cost-effective to rely on domestic sources.

Asset Tangibility and Leverage

According to the regression results (Table 5), asset tangibility has a statistically significant positive effect on the leverage ratio ($P < 0.01$), with a coefficient of 0.116. This observation is a reasonable justification of Hypothesis 2: “H2: There is a positive relationship between asset tangibility and leverage.” A 1% increase in asset tangibility will result in a 0.116 percentage-point increase in leverage. Like profitability, there is also a positive and significant effect of Long-term effects on debt capacity of tangible assets (coefficient = 0.060, $P<0.05$), which supports this point.



The tangibility of assets and leverage are positively correlated, consistent with the Trade-off Theory. According to this theory, companies with higher physical assets can pledge those assets, thereby reducing risk for lenders. This reduces the cost of debt, augments the capacity to borrow, and makes debt a more favourable source of finance. Real property also serves as a buffer in the event of financial distress or bankruptcy, as it can be sold to satisfy debts. This is intended to reduce agency conflicts between shareholders and debtholders by safeguarding the interests of the latter.

These findings are similar to those of Fauzi et al. (2013), Mng et al. (2017), and Umer (2014), who reported similar positive associations. This contradiction with the research, such as Acaravci (2015), which found a negative correlation, and the studies by Alves and Ferreira (2011) and Bauer (2004), which found no apparent correlation, highlights the importance of the particular institutional and economic environment. In Tanzania, where access to finance may be limited, the ability to provide physical security may be critical to obtaining debt, especially long-term debt, from financial institutions.

Liquidity and Leverage

Pareto correlation outcomes (Table 3) indicate that the two variables, liquidity and leverage, are negatively correlated (correlation coefficient = -0.15, $P < 0.05$). Although a complete regression result for liquidity was not presented in the core results tables (Tables 4 and 4.5), the correlation indicates that higher liquidity is associated with lower leverage. This finding supports Hypothesis H3 – “There is a negative relationship between liquidity and leverage.”

The adverse correlation between liquidity and leverage is consistent with the Pecking Order Theory. Highly liquid companies (i.e., have ample cash, marketable securities, and current assets relative to their current liabilities) require less external financing. They have sufficient internal resources to finance their operations and new investments, thereby reducing their dependence on debt. As a manager, the advantages of high liquidity include greater financial flexibility and reduced pressure to raise external funds, which are expensive and often subject to restrictive covenants.

The result is consistent with research by Nadeem and Zongjun (2011) and Teddy (2015), who also found a negative correlation or no significant association between liquidity and leverage, suggesting that internal funds are preferred. The outcome is lower than expected under the Trade-off Theory, which would imply that the higher a firm's liquidity, the more it borrows because of its perceived repayment capacity; however, this does not appear to be the case in the DSE environment, where there is a preference for using existing liquid facilities.

Conclusion

The study concludes that profitability and liquidity negatively influence leverage, while asset tangibility positively affects it among DSE-listed non-financial firms. These findings align with the pecking order theory, as firms prefer internal financing when profitable and liquid, and the trade-off theory, where tangible assets facilitate debt acquisition through collateralization.

For managers, prioritising profit retention and strategic management of tangible assets is recommended to enhance financial flexibility and debt capacity. Policymakers should focus on deepening capital markets and improving access to long-term financing to reduce over-reliance on internal funds and short-term debt. Future research could expand the sample, incorporate dynamic models, and examine industry-specific variations to elucidate capital structure dynamics in emerging markets further.



References

- Afza, T., & Hussain, A. (2011). Determinants of capital structure: a case of Pakistan. *African Journal of Business Management*, 5(26), 10839-10848.
- Acaravci, A. (2015). Determinants of Capital Structure in Turkish Manufacturing Sector. *Journal of Business, Economics and Finance*, 4(1), 16-24.
- Almeida, H., & Campello, M. (2007). Financial constraints, asset tangibility, and corporate investment. *The Review of Financial Studies*, 20(5), 1429-1460.
- Al-Najjar, B. (2023). Corporate governance and the agency problem: An overview. *Journal of Risk and Financial Management*, 16(2), 122.
- Alves, S., & Ferreira, M. A. (2011). Capital structure and profitability: Evidence from Portugal. *Journal of Applied Finance & Banking*, 1(3), 11-28.
- Arsov, S., & Naumoski, A. (2016). Determinants of Capital Structure: Evidence from Macedonian Listed Companies. *Procedia Economics and Finance*, 39, 442-449.
- Bao, D., Jiang, G., & Wang, W. (2022). Free cash flow, overinvestment and corporate governance: Evidence from China. *Pacific-Basin Finance Journal*, 71(5).
- Bauer, J. (2004). *The determinants of capital structure: Empirical evidence from German SMEs*. University of Mannheim.
- Brigham, E. F., & Houston, J. F. (2012). *Fundamentals of Financial Management*. Cengage Learning.
- Brigham, E. F., & Houston, J. F. (2024). *Fundamentals of financial management* (17th ed.). Cengage Learning.
- Chalu, P. H., Richard, O., & Ngohelo, A. (2019). Factors Influencing Capital Structure Decisions: Evidence from Manufacturing Companies in Tanzania. *International Journal of Finance and Accounting*, 8(2), 26-38.
- Chandrasekharan, R. (2012). Capital structure determinants: Evidence from Nigerian manufacturing firms. *Journal of Economics and Sustainable Development*, 3(14), 112-120.
- Chang, C., Chen, J. J., & Liao, W. C. (2014). Financial constraints and capital structure: evidence from China. *Emerging Markets Finance and Trade*, 50(2), 52-70.
- Chen, J., Jiang, F., & Lin, C. (2014). Financial development and capital structure: an empirical analysis of Chinese listed companies. *Emerging Markets Finance and Trade*, 50(2), 116-136.
- Chipeta, C., & Deressa, B. (2016). Determinants of capital structure of listed firms in Malawi. *African Journal of Economic and Management Studies*, 7(4), 488-502.
- Cortina, J. J., Didier, T., & Schmukler, S. L. (2023). The use of collateral in formal and informal lending. *Journal of Financial Intermediation*, 56, 101061.
- Dang, V. A., Kim, M., & Shin, Y. (2020). Asymmetric adjustment toward optimal capital structure: Evidence from a crisis. *International Review of Financial Analysis*, 73, 101620.
- Dang, V. A., Lee, E., Liu, Y., & Zeng, C. (2022). Corporate debt financing in Europe: The role of creditor protection. *Journal of Corporate Finance*, 72, 102155.
- Dar es Salaam Stock Exchange (DSE). (2021). *Annual Reports*.
- Degryse, H., de Goeij, P., & Kappert, P. (2012). The impact of firm and industry characteristics on European firms' capital structure. *Journal of Banking & Finance*, 36(11), 3045-3056.
- Dubey, U. K. B., & Kothari, D. P. (2022). *Research methodology: Techniques and trends*. Chapman and Hall/CRC.
- Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order theories of capital structure. *Journal of Financial Economics*, 64(2), 297-327.
- Fauzi, S. Z. M., Basyith, A., & Idris, M. (2013). Determinants of capital structure: an evidence from Malaysian public listed companies. *International Journal of Accounting and Financial Reporting*, 3(1), 209-224.



- Fitch Solutions. (2025, June 24). Tanzania's Banking Sector: Expanding Assets Amid Liquidity Challenges. [Accessed July 8, 2025].
- Frank, M. Z., & Goyal, V. K. (2021). Testing the pecking order theory of capital structure: A new approach. *Journal of Financial and Quantitative Analysis*, 56(4), 1187-1219
- Fred, E. J. (2015). *The Determinants of Capital Structure of Listed Companies in Tanzania*. Unpublished Master's Thesis, Mzumbe University.
- Gómez, P. H., Rivas, G. A., & Bolaños, A. R. (2014). Determinants of capital structure in Latin America. *Revista Latinoamericana de Administración*, 25(2), 1-26.
- González, V., & González, F. (2011). The role of bank regulations in the capital structure decisions of firms: Evidence from Latin America. *Journal of Financial Economics*, 102(1), 1-23.
- Güner, B. A. (2016). Determinants of capital structure in developing countries: Evidence from Turkey. *International Journal of Economics and Financial Issues*, 6(3), 884-893.
- Hailegebreal, S. B., & Wang, Q. (2019). Determinants of Capital Structure: Empirical Evidence from Ethiopian Manufacturing Firms. *Journal of Finance and Economics*, 7(1), 20-30.
- Haragusi, K., Chend, J., & Smeet, C. (2016). Capital structure and financial performance of manufacturing firms in Bangladesh. *International Journal of Economics and Financial Issues*, 6(4), 1435-1442.
- Kapaya, S. M., Ngatuni, A., & Katunzi, M. (2018). Determinants of Capital Structure of Public Firms in Tanzania. *European Journal of Business and Management*, 10(28), 1-10.
- Karadeniz, E., Kandir, S. Y., & Balci, M. (2009). Determinants of capital structure in Turkish manufacturing firms. *International Journal of Financial Research*, 1(2), 85-98.
- Kipasha, E. F. (2021). Liquidity and leverage: A twin financial challenge to commercial banks in Tanzania. *Journal of Accounting, Finance and Auditing Studies*, 7(4), 143-162.
- Kurniasari, T., Murhadi, W. R., & Utami, L. C. (2016). Determinants of capital structure: evidence from Indonesian listed companies. *Journal of Business and Accounting*, 18(2), 135-150.
- Machogu, R. M. (2012). *Determinants of Capital Structure of Non-Financial Companies Listed on Nairobi Securities Exchange*. University of Nairobi.
- Masele, F. E. (2016). *Determinants of Capital Structure of Commercial Banks in Tanzania*. Unpublished Master's Thesis, Mzumbe University.
- Mazur, M. (2007). The impact of product market competition on capital structure: Theory and evidence. *Journal of Financial Economics*, 86(3), 690-717.
- M'ng, J. C., Rahman, N. N. A., & Sannacy, S. (2017). Capital structure determinants of manufacturing firms: evidence from Malaysia, Singapore and Thailand. *Asian Academy of Management Journal of Accounting and Finance*, 13(2), 1-28.
- 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.
- Mofor, R. C. (2024). Unveiling the Role of Investment Tangibility on Financial Leverage: Insights from African-Listed Firms. *Journal of Risk and Financial Management*, 17(11), 478.
- Mujwahuzi, G. V., & Mbogo, C. J. (2020). Effects of Capital Structure on Business Profitability of Processing Enterprises Listed on the Dar es Salaam Stock Exchange, Tanzania. *Journal of Finance and Accounting*, 8(4), 165-171.
- Mwang'onda, M., Ntui, P., Makindara, J., & Mbilinyi, N. (2018). Determinants of capital structure of non-financial firms listed at Dar es Salaam stock exchange (DSE), Tanzania. *International Journal of Research in Business and Social Science*, 7(2), 1-13.
- Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 575-592.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.



- Nadeem, M., & Zongjun, W. (2011). Determinants of capital structure in Pakistan: An empirical investigation. *International Journal of Business and Management*, 6(1), 220-230.
- Nalurita, S. (2019). Determinants of Capital Structure: Empirical Study on Manufacturing Companies in Indonesia. *International Journal of Scientific and Research Publications*, 9(7), 80-87.
- Ng'habi, E. J. (2012). *Factors influencing capital structure decisions of firms listed at Dar Es Salaam stock exchange*. Unpublished Master's Dissertation, University of Dar es Salaam.
- Olufemi, A. M., Abu, O. D., & Olugbenga, A. K. (2018). Capital structure and financial performance of listed manufacturing firms in Nigeria. *Journal of Research in International Business and Management*, 5(1), 81-89.
- Organisation for Economic Co-operation and Development (OECD). (2023). *Financing SMEs and Entrepreneurs 2023: An OECD Scoreboard*. OECD Publishing.
- Papadavid, P. (2017). *Understanding the drivers of capital structure in developing countries: Evidence from Ghana*. International Growth Centre. Avail. At. <https://aercafrica.org/old-website/wp-content/uploads/2018/07/RP176.pdf>
- Purwanto, P. (2021). *PLS-SEM: A Comprehensive Guide to Structural Equation Modeling*. Deepublish.
- Sheikh, S. A., & Wang, Z. (2011). Determinants of capital structure: an empirical study of Pakistani manufacturing sector. *Journal of Finance and Economics*, 5(3), 114-122.
- Shikumo, D. H. (2018). Firm-specific determinants of capital structure for companies listed on the Dar es Salaam Stock Exchange, Tanzania. *African Journal of Business Management*, 12(19), 576-585.
- Sofat, C., & Singh, R. (2017). Determinants of capital structure of Indian manufacturing firms. *International Journal of Managerial Finance*, 13(1), 89-106.
- Strebulaev, I. A. (2023). Capital structure. In D. Bernhardt & C. R. Parise (Eds.), *The Palgrave encyclopedia of private equity*. Palgrave Macmillan
- Swanson, P. E., Srinidhi, B. N., & Seetharaman, S. (2003). The impact of capital structure on firm performance: Evidence from India. *Journal of Indian Business Research*, 1(2), 78-90.
- Teddy, J. (2015). Determinants of capital structure in selected manufacturing firms in Kenya. *International Journal of Social Sciences and Entrepreneurship*, 2(1), 1-15.
- The Citizen. (2019). Tanzania's Manufacturing Sector in Focus. [Online News Article]. <https://www.thecitizen.co.tz/tanzania/news/national/key-agents-of-industrial-growth-2554226>
- Umer, F. A. (2014). Determinants of capital structure of Ethiopian manufacturing share companies. *European Journal of Business and Management*, 6(2), 25-38.
- Wagofya, M. (2019). *Research Methodology for Business and Economics Students*. Mzumbe University.
- Wangwe, S., Mmari, D., Aikaeli, J., Rutatina, B., Mboghoina, T., & Kinyondo, A. (2016). *Industrialization and poverty reduction in Tanzania: What role for research and policy?* REPOA.
- World Bank. (2023). *Global economic prospects, January 2023*. The World Bank Group.