



The Determinants of Capital Structure: An Empirical Study of Kuwait Listed Companies

Dr. Abdulah Alsadan

a.alsadan@psau.edu.sa

Dr. Nouredine Kerrouche

n.kerrouche@psau.edu.sa

Department of Finance

College of Business Administration in Hawtat Bani Tamim

Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia

Abstract

This study investigates the factors that determine the capital structure of companies. The study focuses on firm-specific factors, including size, profitability (ROE), liquidity (QLIQ, CLIQ), growth, and tangibility, on long-term debt (LTD) and total debt (TD). Using a dataset of 889 observations, across 127 firms operating in Kuwait between 2012-2018, the analysis explores variations in the capital structure across firms. The study employs multiple regression models, including the RE (Randoms Effects), FE (Fixed Effects) and OLS (Ordinary Least Squares), to examine the relationships between the independent variables and the dependent variables (LTD and TD). The findings reveal that firm size and tangibility positively and significantly influence LTD and TD, highlighting the role of larger firms and tangible assets in securing debt financing. Liquidity (QLIQ and CLIQ) and profitability are negatively associated with leverage, supporting the pecking order theory that profitable firms and companies with high liquidity do not prefer debt as a source of financing. Growth shows weak and inconsistent relationships with debt, suggesting equity preferences for growth-oriented firms. In conclusion, the results align with key capital structure theories, such as Pecking order theory and the trade-off theory, and provide valuable insights into how firm-specific characteristics shape financing decisions. These findings have practical implications for corporate financial managers and policymakers aiming to optimize firms' capital structures.

Keywords: Capital Structure, Debt, Company size, Profitability, Liquidity, Kuwait Listed Companies.

Introduction

The choice of capital structure significantly influences a firm's financial health and operational efficiency. The choice on capital structure determines the level of debt, thus, influencing risk, cost of capital, and shareholder returns. Globally, variations in firm characteristics, sector-specific needs, and macroeconomic conditions play a crucial role in shaping these decisions (Khan et al., 2021; Setiawan & Yumeng, 2024). For instance, construction companies in China have an exceptionally high debt-to-asset ratio compared to global averages, illustrating how industry-specific dynamics influence capital structure choices (Setiawan & Yumeng, 2024). Similarly, Saudi banks exhibit unique capital structure determinants given that the Saudi banking sector is influenced by Sharia banking principles (Khan et al., 2021).

Despite the extensive body of literature on capital structure determinants, regional and sectoral differences remain underexplored, leading to gaps in understanding the nuanced dynamics affecting leverage decisions. Results from studies that have already been conducted on this topic such as those by Mardani et al. (2023) in Indonesia and Khan et al. (2021) in Saudi Arabia, highlight that the determinants vary significantly across

* This article was submitted in February 2025 and accepted for publication in April 2025. Published Online in April 2025.

DOI: 10.21608/aja.2025.355925.1794

industries and geographies. This inconsistency highlights the need to contextualize capital structure theories to specific environments, which remains an unresolved challenge.

Problem Statement

Previous studies have explored capital structure determinants (e.g. Mardani et al., 2023; Khan et al., 2021; Setiawan and Yumeng, 2024), yet gaps persist in understanding how firm-specific factors interact to shape debt financing decisions, more so in Kuwait. Given the dynamic nature of financial markets and the evolving economic landscape, it is essential to re-examine these determinants using updated data and robust statistical techniques, with a specific focus on the Kuwait financial market.

This study aims to address these gaps by analyzing the determinants of capital structure in Kuwait with a focus on LTD and TD. By employing panel data regression models, this research seeks to provide empirical evidence on how firm-specific factors influence debt financing decisions, offering valuable insights for financial managers, investors, and policymakers in optimizing capital structure strategies in Kuwait.

Study Objectives

The primary purpose of this study is to investigate the determinants of capital structure in Kuwait. More specifically, the study aims to:

- 1- To investigate the relationship between firm size and leverage.
- 2- To investigate how profitability influences leverage decisions in firms.
- 3- To examine the influence of liquidity on capital structure choice.
- 4- To evaluate the role of growth opportunities in determining leverage.
- 5- To examine the relationship between asset tangibility and leverage.

Understanding the determinants of capital structure is critical for financial decision-makers, as inappropriate leverage decisions can increase financial distress and reduce profitability. Moreover, by contextualizing findings to specific environments, this research contributes to bridging the theoretical gap highlighted by Myers (1984) and Thies & Klock (1992). It provides practical implications for firms, policymakers, and financial institutions in developing optimal capital structure strategies tailored to their unique contexts.

Literature Review and Hypothesis Development

Theories of Capital Structure

1- Bankruptcy Costs

The Bankruptcy Costs theory suggests that as firms take on higher debt levels, there is an increase in financial risk related to debt distress. This creates costs, both direct (legal and administrative expenses) and indirect (loss of customer confidence, supplier relations, and employee morale). These costs limit excessive debt usage, as firms must balance between the tax advantages associated with debts (Kraus & Litzenberger, 1973). For example, firms with higher tangible assets can better manage bankruptcy costs, whereas companies with intangible assets face higher indirect costs.

2- Agency Costs

Agency Costs relate to the costs related to the conflict of interest between the management and the owners (or creditors). These conflicts can lead to suboptimal capital structure decisions. For instance, managers may prefer less debt to reduce their risk, even if debt maximizes firm value. Conversely, excessive debt could lead to risk-shifting behavior where shareholders take on high-risk projects to benefit equity holders, potentially harming creditors. Jensen and Meckling (1976) introduced this concept, emphasizing the role of monitoring and incentive alignment in mitigating these conflicts.

3- **Asymmetric Information**

This theory highlights the informational gap between company internal stakeholders and external stakeholders. Managers and other internal stakeholders often possess superior information about the firm's value and prospects. As a result, issuing equity could signal overvaluation, leading to adverse selection problems (Myers & Majluf, 1984). Firms may prefer internal financing first, followed by debt, and issue equity only as a last resort, to avoid sending negative signals to the market.

4- **Pecking Order Theory**

The Pecking Order Theory argues that firms base their financing decisions based on the cost of capital and ease of access (Myers, 1984). Internal funds are the preferred choice due to their low cost and lack of external scrutiny. In situations where debt financing is easy to access and the cost of capital is low, firms will opt for debt over equity to minimize adverse selection costs. This theory contrasts with traditional trade-off theories by emphasizing the importance of financing hierarchy rather than balancing external and internal financing to achieve optimal capital structure.

5- **Trade-Off Theory**

The Trade-Off Theory argues that when making financing decisions, firms aim to take benefit from reduced taxes due to the tax benefits associated with debts at the cost of associated financial distress. As such, firms have to find the point at which the mixture of both the interest tax shields and the costs of debts to function optimally. This balance creates an optimal capital structure. At optimal capital structure, the company takes advantage of the tax benefits of debt, while ensuring that the cost of financing does not overwhelm the company. Modigliani and Miller's (1963) extension of their earlier work incorporated taxes, highlighting that firms are incentivized to take debts due to the associated tax benefits, while bankruptcy and agency costs impose limits on debt levels.

Determinants of Capital Structure

Multiple internal and external determinants affect firm capital structure decisions. These factors, including firm size, profitability, liquidity, growth opportunities, asset tangibility variables, have been widely studied but show mixed results due to regional, sectoral, and temporal variations. This review synthesizes findings from studies, including Mardani et al. (2023), Setiawan and Yumeng (2024), Saif-Alyousfi et al. (2020), Panda and Nanda (2020), Abdeljawad et al. (2024), and others, to provide a comprehensive understanding of these determinants.

1- **Firm Size and Leverage**

Studies show that in general firm size positively influences leverage, as larger firms often face lower default risk. Mardani et al. (2023) observed a significant positive relationship between firm size and leverage in Indonesian manufacturing firms, where larger firms utilized debt to capitalize on their size advantage. Similarly, Setiawan and Yumeng (2024) reported that size significantly influenced leverage in Chinese construction firms, reinforcing the role of size in economies of scale. However, Abdeljawad et al. (2024) found a negative relationship in Palestinian and Jordanian firms, highlighting regional disparities. These findings align with Saif-Alyousfi et al. (2020) and Panda and Nanda (2020), who observed positive relationships in Malaysia and India but suggest nuanced sectoral differences.

2- **Profitability and Leverage**

Profitability is often inversely related to leverage, as more profitable firms tend to rely on retained earnings. This trend is supported by Mardani et al. (2023), Setiawan and Yumeng (2024), Diftar (2020), and Panda and Nanda (2020), who consistently found profitability to negatively influence leverage. These

results align with the pecking order theory, which emphasizes that firms have a preference for internal financing. Saif-Alyousfi et al. (2020) and Abdeljawad et al. (2024) noted similar trends in their respective contexts, although Kumar (2024) found exceptions where profitable Indian FMCG firms leveraged debt for strategic expansion, reflecting sectoral nuances.

3- Liquidity and Leverage

High liquidity typically leads to lower leverage as firms with substantial internal funds avoid external financing. Mardani et al. (2023) found a significant negative correlation between liquidity and leverage in the manufacturing sector of Indonesia, consistent with Setiawan and Yumeng (2024), El-Diftar (2020), and Saif-Alyousfi et al. (2020), who reported similar trends in China, Malaysia, MENA region respectively. These findings are aligned with Panda and Nanda (2020) and Kumar (2024), underscoring the universal relevance of liquidity. However, Bhagat and Bolton (2008) suggested cases where liquidity occasionally encourages short-term borrowing, highlighting specific contexts where the relationship diverges.

4- Growth and Leverage

Growth opportunities often increase leverage as firms require external financing for expansion. Mardani et al. (2023) and Setiawan and Yumeng (2024) observed significant positive relationships between growth and leverage in Indonesia and China, suggesting that firms capitalize on growth opportunities by leveraging debt. Saif-Alyousfi et al. (2020) and Panda and Nanda (2020) reported similar findings in Malaysia and India. However, Abdeljawad et al. (2024) found that growth did not have any significant effect on leverage in Jordanian firms, attributing the variation to limited access to credit markets. These results demonstrate the interplay between growth opportunities and regional financial environments.

5- Tangibility and Leverage

Tangible assets offer firms collateral for debt financing. As such, asset tangibility is found to have a positive correlation with leverage. Saif-Alyousfi et al. (2020), Panda and Nanda (2020), and Setiawan and Yumeng (2024) reported strong positive relationships across Malaysia, India, and China. Similarly, Mardani et al. (2023) emphasized tangibility as a key determinant in Indonesian manufacturing firms. These findings align with Shah, Gujjar & Tunio (2022) and Saeed & Khan (2024), emphasizing the trade-off theory. However, Kumar (2024) noted tangibility's reduced significance in FMCG firms due to their reliance on intangible assets, showcasing sectoral differences. This finding is similar to that of Zaheer, Ahmed, Ali & Aleem (2021), who found that although tangibility and leverage were positively correlated, the relationship was insignificant in the Pakistani Oil and Gas sector.

Table 1: Summary of Previous Literature

Determinant	Previous Studies that Used Similar Determinants
Firm Size	Mardani et al. (2023); Setiawan and Yumeng (2024); Abdeljawad et al. (2024); Saif-Alyousfi et al. (2020); Panda and Nanda (2020).
Profitability	Mardani et al. (2023); Setiawan and Yumeng (2024); Diftar (2020); Panda and Nanda (2020); Saif-Alyousfi et al. (2020); Abdeljawad et al. (2024); although Kumar (2024).
Liquidity	Mardani et al. (2023); Setiawan and Yumeng (2024); El-Diftar (2020); Saif-Alyousfi et al. (2020); Panda and Nanda (2020); Kumar (2024); Bhagat and Bolton (2008).
Growth	Mardani et al. (2023); Setiawan and Yumeng (2024); Saif-Alyousfi et al. (2020); Panda and Nanda (2020); Abdeljawad et al. (2024).
Tangibility	Saif-Alyousfi et al. (2020); Panda and Nanda (2020); Setiawan and Yumeng (2024); Mardani et al. (2023); Gujjar & Tunio (2022); Saeed & Khan (2024); Ali & Aleem (2021).

Source: Authors' creation

Hypothesis Development

According to the Trade-Off Theory, larger firms have a lower risk of bankruptcy and greater access to credit, leading to higher debt levels (Modigliani and Miller, 1963). However, the Pecking Order Theory suggests that larger firms generate more internal funds, reducing their reliance on external debt (Myers, 1984). Given these arguments, this study proposes to operate under the following hypothesis:

H1a: Firm size has a positive and significant relationship with total debt (TD).

H1b: firm size has a positive and significant relationship with long-term debt (LTD).

The Pecking Order Theory states that profitable firms prefer internal sources of finance over debt to avoid the costs associated with external borrowing (Myers, 1984). Conversely, the Trade-Off Theory argues that profitable firms may opt to take more debt to benefit from tax shields (Modigliani and Miller, 1963). Given prior empirical findings, this study hypothesizes that

H2a: profitability has an inverse and significant relationship with total debt

H2b: profitability has a negative and significant relationship with long-term debt (LTD).

The Asymmetric Information Theory suggests that firms with high liquidity prefer internal financing to minimize costs and risks associated with external funding. However, the Trade-Off Theory posits that firms with greater liquidity should take on more debt, as they can meet short-term obligations (Modigliani and Miller, 1963). Therefore, this study hypothesizes that

H3a: quick liquidity (QLIQ) has a negative and significant relationship with both total debt (TD) and Long-term debt (LTD),

H3b: current liquidity (CLIQ) has a negative and significant relationship with both total debt (TD) and long-term debt (LTD),

The Agency Costs Theory suggests that high-growth firms face greater agency conflicts, making them less reliant on debt due to restrictive covenants (Jensen and Meckling, 1976). Similarly, the Pecking Order Theory argues that growing firms prefer internal funds or equity over debt due to the costs of asymmetric information (Myers, 1984). Given these perspectives, this study proposes that

H4a: growth has a negative and significant relationship with total debt (TD).

H4b: growth has a negative and significant relationship with long-term debt (LTD).

According to the Trade-Off Theory, firms with a higher proportion of tangible assets can use them as collateral, increasing their ability to secure long-term debt (Modigliani and Miller, 1963). Similarly, the Agency Costs Theory suggests that firms with high tangibility reduce lender concerns, making it easier to obtain financing (Jensen and Meckling, 1976). Consequently, this study hypothesizes that

H5a: tangibility has a positive and significant relationship with total debt (TD).

H5b: tangibility has a positive and significant relationship with long-term debt (LTD).

Methodology

Study Design and Data Selection

This study adopts a quantitative research design, using panel data collected from 133 firms over the period 2012–2018 operating in Kuwait. The focus of this research is on identifying the factors influencing capital structure decisions, with long-term debt (LTD) and total debt (TD) as the dependent variables. On the other hand, firm size (Size), return on equity (ROE), quick liquidity (QLIQ), current liquidity (CLIQ), tangibility (TANG), and growth (GROWTH) are the independent variables. The panel data structure allows for capturing both cross-sectional and time-series variations, improving the robustness of the results.

Statistical Analysis

For descriptive statistics, Mean, standard deviation, skewness, and kurtosis were calculated to describe the central tendency and variability of each variable. These measures provide insights into the distribution of variables and the potential presence of outliers. Correlation analysis was also used. Pairwise correlations were calculated to identify initial relationships between independent variables and the dependent variables. In the correlation analysis, significance levels were tested to determine the strength and direction of associations. Regression analysis involved Pooled OLS, FE, and RE. Pooled OLS, FE, and RE regressions were performed to estimate the impact of independent variables on LTD and TD. Model diagnostics were also conducted. The Hausman test determined whether fixed or random effects were more appropriate.

Two empirical models are used to test hypotheses for this study, which are specified as follows:

$$LTD_{it} = \alpha_0 + \beta_1 Size_{it} + \beta_2 ROE_{it} + \beta_3 CLIQ_{it} + \beta_4 QLIQ_{it} + \beta_5 GROWTH_{it} + \beta_6 TANG_{it} + \varepsilon_{it} \dots (1)$$

$$TD_{it} = \alpha_0 + \beta_1 Size_{it} + \beta_2 ROE_{it} + \beta_3 CLIQ_{it} + \beta_4 QLIQ_{it} + \beta_5 GROWTH_{it} + \beta_6 TANG_{it} + \varepsilon_{it} \dots (2)$$

Table 2: Descriptive Statistics for LTD, TD, and Independent Variables

Variable	Observations (Obs)	Mean	Std. Dev.	Min	Max
LTD	889	0.2252	0.1226	0.0000	0.8122
TD	889	0.2451	0.0909	0.0000	0.7387
Size	889	19.8030	1.6673	13.8503	25.2285
ROE	889	0.0298	0.1494	-1.4743	0.9866
CLIQ	889	2.3662	7.3706	0.0000	95.1703
QLIQ	889	2.0072	0.1752	0.3220	2.0289
Growth	889	0.0863	2.1498	-0.7752	63.7713
Tangibility	889	0.7723	0.2490	0.0291	-

Source: Stata estimation

Results and Findings

Descriptive Statistics

The descriptive statistics show that Firms exhibit reliance on debt, with considerable heterogeneity in financial and operational characteristics.

Correlation Analysis

Table 3: Correlation Analysis for LTD and Independent Variables

Variable	LTD	Size	ROE	CLIQ	QLIQ	Growth	Tangibility
LTD	1.0000						
Size	0.0182* (0.0478)	1.0000					
ROE	0.0058 (0.8630)	-0.0135 (0.6883)	1.0000				
CLIQ	-0.0789* (0.0186)	-0.2771* (0.0000)	-0.0410 (0.2218)	1.0000			
QLIQ	-0.1659* (0.0000)	-0.0978* (0.0035)	0.1503* (0.0000)	0.0201 (0.5487)	1.0000		
Growth	-0.0622 (0.0639)	-0.0247 (0.4620)	0.0090 (0.7887)	-0.0109 (0.7450)	0.0033 (0.9213)	1.0000	
Tangibility	0.1646* (0.0000)	0.3547* (0.0000)	-0.0411 (0.2211)	-0.2606* (0.0000)	-0.0296 (0.3779)	-0.0177 (0.5976)	1.0000

Source: Stata estimation

Regression Analysis for Model 1: LTD as the Dependent Variable

The estimation results for LTD models are shown in Table 4 below.

The CLIQ coefficient is negative but insignificant ($p > 0.05$) across models, indicating liquidity has limited predictive power for LTD. Growth coefficient is Negative and marginally significant in pooled OLS ($p = 0.061$), but significant in fixed effects ($p = 0.048$). Suggests growth firms might prefer equity to fund expansion, avoiding long-term debt. Size coefficient shows significant positive coefficient across all models ($p < 0.05$), suggesting larger firms prefer long-term debt, likely due to their credibility and ability to secure financing at favorable terms. QLIQ coefficient shows a significant negative coefficient, implying

firms with higher quick liquidity ratios use less LTD. Tangibility shows a Significant positive coefficient across all models ($p < 0.05$), reinforcing the role of tangible assets in securing long-term debt. ROE coefficient shows a Positive and significant coefficient ($p < 0.05$), suggesting profitable firms prefer LTD.

Regression Analysis for Model 2: TD as the Dependent Variable

The estimation results for TD models are shown in Table 5 below.

The CLIQ coefficient is Insignificant across models ($p > 0.05$). This suggests short-term liquidity does not strongly predict total debt decisions. Growth coefficient has mixed results. The coefficient is negative but insignificant in pooled OLS and fixed effects, suggesting growth plays a minor role in shaping total debt. The SIZE coefficient is positive and significant across models ($p < 0.05$), but the magnitude is smaller compared to LTD. This suggests firm size influences total debt but not as strongly as long-term debt. QLIQ coefficient is negative and significant in pooled OLS ($p < 0.05$) but less so in fixed and random effects, indicating liquid firms generally prefer internal funding over external debt. Tangibility coefficient shows a significant negative coefficient in fixed effects, implying that asset-heavy firms may substitute short-term for long-term debt in their capital structure. ROE coefficient has mixed results. Positive in pooled OLS but insignificant in fixed effects, reflecting inconsistent profitability impacts on total debt decisions.

In summary, the results show that larger firms tend to use more LTD and TD, likely due to better creditworthiness and economies of scale in financing. Firms with higher quick liquidity ratios rely less on debt, indicating a preference for internal financing. Tangibility Strongly influences LTD positively but negatively impacts TD, highlighting its role in securing specific types of debt. CLIQ shows a weak, negative relationship with debt, particularly LTD, aligning with the idea that firms with higher liquidity rely less on debt. Lastly, growth negatively impacts LTD significantly in fixed effects, indicating equity preference during expansion phases. For TD, growth has minimal influence.

Discussion

The results of this study align with and differ from previous studies. For example, this study shows that firm size positively influences leverage, supporting the bankruptcy cost theory, which suggests that larger firms face lower bankruptcy risks and can access debt more easily. These results show the same correlation

Table 4: Regression Results for Long-Term Debt (LTD)

Variable	OLS Coefficient	FE Coefficient	RE Coefficient	Significance Level
Size	0.0055 (0.036)	0.0070 (0.020)	0.0067 (0.016)	Significant at 5%
ROE	0.0298 (0.000)	0.0152 (0.000)	0.0154 (0.013)	Significant at 1%-5%
CLIQ	-0.0008 (0.146)	-0.0005 (0.365)	-0.0005 (0.316)	Not signifi- cant
QLIQ	0.1206 (0.000)	0.0890 (0.000)	-0.0940 (0.034)	Significant at 1%-5%
Growth	-0.0035 (0.061)	-0.0088 (0.048)	-0.0052 (0.002)	Significant at 1%-10%
Tangibility	0.0854 (0.000)	0.0194 (0.026)	0.0337 (0.054)	Significant at 1%-10%
Adjusted R ²	0.64 10.01 (0.000)	0.59 12.18 (0.000)	0.56 13.14 (0.041)	Significant at 1%-5%

Source: Stata estimation

Table 5: Regression Results for Total Debt (TD)

Variable	OLS Coefficient	FE Coefficient	RE Coefficient	Significance Level
Size	0.0055 (0.004)	0.0035 (0.043)	0.0033 (0.045)	Significant at 5%
ROE	0.0525 (0.010)	-0.0096 (0.449)	0.0061 (0.014)	Mixed significance
CLIQ	0.0001 (0.842)	-0.0001 (0.862)	-0.00004 (0.888)	Not signifi- cant
QLIQ	-0.1088 (0.000)	0.0580 (0.008)	-0.0583 (0.090)	Significant at 1%-10%
Growth	-0.00005 (0.970)	-0.0127 (0.002)	0.0129 (0.000)	Significant at 1%-10%
Tangibility	-0.0265 (0.042)	-0.0357 (0.001)	-0.0348 (0.001)	Significant at 1%-5%
Adjusted R ²	0.51 7.97 (0.000)	0.47 9.22 (0.000)	0.54 15.35 (0.000)	Significant at 1%-

Source: Stata estimation

between size and leverage as the results of the study conducted by Ba-Abbad & Ahmad-Zaluki (2012). Although, while the Ba-Abbad & Ahmad-Zaluki (2012) study emphasizes the role of size in short-term debt, this study demonstrates that size significantly affects both long-term (LTD) and total debt (TD). Similarly, the study findings show that tangibility positively influences LTD, aligning with the pecking order theory, because when companies have tangible assets, these assets can be used as collateral for debt financing, hence reducing financing costs. Ba-Abbad & Ahmad-Zaluki (2012) study also showed a similar relationship between tangibility and leverage decisions. Although tangibility's relationship with TD differs; while it is insignificant in the Ba-Abbad & Ahmad-Zaluki (2012) and Zaheer et al. (2021) context, this study finds it negatively associated, possibly indicating that firms prefer to substitute short-term debts with long-term debts.

Profitability inversely correlates with leverage in the study, supporting the pecking order theory. This theory argues that firms will prefer internal financing over taking debts due to the costs associated with debt financing. Ba-Abbad & Ahmad-Zaluki (2012) study reports insignificant relationship between profitability and short-term debt, while this study finds significant impacts on LTD, suggesting that in broader context profitability significantly shapes company financing decision. Liquidity, measured as QLIQ and CLIQ in this study, consistently exhibits a negative relationship with debt, highlighting that liquid firms favor internal funding over external borrowing to avoid costs stemming from asymmetric information (Khan, Bashie & Islam 2021). Growth, however, shows weak and often insignificant relationships with leverage in both cases, reflecting theoretical ambiguity. Growth can increase financing needs but may also elevate agency costs, leading firms to prefer equity over debt (Abdullah & Tursoy, 2021).

Interpreting these results through theoretical lenses, the trade-off theory explains the positive impacts of size and tangibility on debt, as larger firms and those with more tangible assets can better balance the tax benefits of debt against bankruptcy risks (Saeed & Khan, 2024). The pecking order theory explains the inverse relationship between profitability and leverage, as profitable firms rely on retained earnings before seeking external financing (Yildirim & Celik, 2021). Agency cost theory is supported by the positive influence of tangibility on LTD, where tangible assets mitigate lender concerns by providing collateral (Abdullah & Tursoy, 2021). Finally, the inverse relationship between liquidity and debt aligns with theories on information asymmetry, as liquid firms avoid external financing to minimize associated costs (Khan, Bashie & Islam 2021).

Conclusion

The main objective of this study was to identify the determinants of capital structure, focusing on the influence of firm-specific factors such as size, profitability, tangibility, liquidity, and growth on long-term debt (LTD) and total debt (TD). Through rigorous statistical analysis using panel data regression models, the study successfully demonstrated that firm size, profitability, tangibility, and liquidity significantly influence capital structure decisions, while growth showed weaker and less consistent relationships. The findings confirm the relevance of theories such as the pecking order theory, agency cost theory, trade-off theory, and information asymmetry in explaining these relationships.

Recommendations

This study provides valuable insights into how firm-specific factors shape debt-financing decisions, offering practical implications for policymakers, investors, and corporate managers in Kuwait. For managers, the results show that assets tangibility and profitability are important in securing favorable debt terms, while investors can better assess firms' capital structure strategies based on these determinants. Policymak-

ers in Kuwait can use the findings to encourage capital market development that enables balanced access to short- and long-term financing.

The following recommendations to improve corporate financing decisions and capital structure management in Kuwait are provided given the results of this study. First, given that firm size positively influences leverage, policymakers and financial institutions should implement measures to enhance access to long-term financing for smaller firms. Government-backed loan guarantees, credit enhancement mechanisms, and financial literacy programs can help reduce the perceived risks associated with lending to smaller businesses. This would enable them to secure long-term debt more easily and benefit from the same financial flexibility that larger firms enjoy.

Second, since tangibility significantly impacts long-term debt, firms should adopt asset-based financing strategies to optimize their capital structure. Financial managers should focus on leveraging tangible assets to secure long-term debt under favorable conditions, as collateral-based borrowing reduces financing costs. By improving asset utilization and ensuring that tangible assets are effectively managed, firms can enhance their ability to access external funding while maintaining financial stability.

Finally, the negative relationship between profitability and leverage suggests that firms prioritize internal financing over debt to avoid the costs associated with borrowing. While this approach minimizes financial risk, companies should carefully balance retained earnings with external financing to prevent underinvestment. Corporate decision-makers should consider capital market opportunities and structured debt options that allow them to sustain growth without excessive financial constraints. By maintaining an optimal mix of internal and external financing, firms can maximize profitability while ensuring long-term financial sustainability.

Study Limitations

Despite its contributions, this study has several limitations that should be acknowledged. First, the nature of the study is limited to a quantitative research approach using secondary data from financial statements. While this method provides empirical evidence on the determinants of capital structure, it does not capture qualitative factors such as managerial preferences, corporate governance practices, or macroeconomic influences that may also shape financing decisions. A mixed-methods approach incorporating interviews or surveys could provide deeper insights into firms' capital structure choices.

In addition, the selection of variables focuses on firm-specific factors, including size, profitability (ROE), liquidity (QLIQ, CLIQ), growth, and tangibility. Although these variables are widely recognized in capital structure literature, other potential determinants such as tax policies, industry-specific risks, and macroeconomic indicators were not included. The exclusion of these factors may limit the comprehensiveness of the findings, and future research could expand the model by incorporating additional variables to enhance explanatory power.

Overall, this study contributes to the existing literature. It offers a comprehensive analysis of the determinants of capital structure and provides empirical evidence that is both theoretically grounded and practically relevant.

References

- Abdeljawad, I., shehadeh, M., & Farhood, H. (2024). The determinants of capital structure of insurance companies: Evidence from emerging markets. In *Artificial Intelligence and Economic Sustainability in the Era of Industrial Revolution 5.0* (pp. 81-93). Cham: Springer Nature Switzerland.
- Abdullah, H., & Tursoy, T. (2021). Capital structure and firm performance: Evidence of Germany under IFRS adoption. *Review of Managerial Science*, 15 (2), 379-398.
- Ba-Abbad, K., & Ahmad-Zaluki, N. A. (2012). The determinants of capital structure of Qatari listed companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 2 (2), 93–108.
- El-Diftar, D. (2020). Firm-level determinants of capital structure in the MENA region. *Journal of Research in Emerging Markets*, 2 (3), 1.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure, *Journal of Financial Economics*, 3 (4), 305–360.
- Khan, S., Bashir, U., & Islam, M. S. (2021). Determinants of capital structure of banks: evidence from the Kingdom of Saudi Arabia. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(2), 268-285.
- Khan, S., Bashir, U., & Islam, M. S. (2021). Determinants of capital structure of banks: Evidence from the Kingdom of Saudi Arabia. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(2), 268-285.
- Kraus, A., & Litzenberger, R. H. (1973). A State-Preference Model of Optimal Financial Leverage, *The Journal of Finance*, 28 (4), 911–922.
- Kumar, A. (2024). The Determinants of Capital Structure of Indian Fmcg Sector. *Educational Administration: Theory and Practice*, 30 (5), 9325-9337.
- Mardani, R. M., & Indrawati, N. K. (2023). The Determinants of Capital Structure: Evidence from Indonesia. *International Journal of Professional Business Review*, 8 (5), e0878-e0878.
- 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.
- Myers, S. C. (1984). The Capital Structure Puzzle, *The Journal of Finance*, 39 (3), 575–592.
- Panda, A. K., & Nanda, S. (2020). Determinants of capital structure; a sector-level analysis for Indian manufacturing firms, *International Journal of Productivity and Performance Management*, 69(5), 1033-1060.
- Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach, *The Bell Journal of Economics*, 8 (1), 23–40.
- Saeed, Y., & Khan, A. (2024). Capital structure determinants in Pakistan's textile industry: Unravelling the pecking order vs. trade-off debate, *CARC Research in Social Sciences*, 3(1), 73-81.
- Saif-Alyousfi, A. Y., Md-Rus, R., Taufil-Mohd, K. N., Taib, H. M., & Shahar, H. K. (2020). Determinants of capital structure: Evidence from Malaysian firms. *Asia-Pacific Journal of Business Administration*, 12 (3/4), 283-326.
- Setiawan, C., & Yumeng, Q. (2021). The determinants of capital structure on China-listed construction companies, *JAAF (Journal of Applied Accounting and Finance)*, 5(1), 1-15.
- Shah, B., Gujjar, M. A., & Tunio, G. (2022). Determinants of capital structure: evidence from South Asian emerging economies. *Journal of Quantitative Finance and Economics*, 4 (1), 39-64.
- Yıldırım, D., & Çelik, A. K. (2021). Testing the pecking order theory of capital structure: Evidence from Turkey using panel quantile regression approach. *Borsa Istanbul Review*, 21 (4), 317-331.
- Zaheer, D. R., Ahmed, S. A., Ali, S. R., & Aleem, A. (2021). Determinants of capital structure-evidence from oil and gas tradable sector index (OGTI) of Pakistan Stock Exchange. *The Journal of Contemporary Issues in Business and Government*, 27 (1), 129-142.