



ADVANCED INTERNATIONAL JOURNAL
OF BUSINESS, ENTREPRENEURSHIP
AND SMES
(AIJBES)

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THE DEBT STRUCTURE AND FIRM CHARACTERISTICS OF TOP 50 COMPANIES IN MALAYSIA

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Article Info:

Article history:

Received date: 05.07.2026

Revised date: 20.07.2026

Accepted date: 16.08.2026

Published date: 15.09.2026

To cite this document.

Shaari, S. N. M., Kamarudin, N. N. A. N., Raman, S. A., & Karim, N. A. (2026). The Debt Structure and Firm Characteristics of Top 50 Companies in Malaysia. *Advanced International Journal of Business Entrepreneurship and SMEs*, 8 (29), 756-775.

Abstract:

This study examines the debt structures of the top 50 non-financial companies in Malaysia and investigates how these specific debt instruments associate with firm characteristics. This study is essential because, firstly, a simple debt ratio does not consider the potential conflicts of interest among different groups of debt holders and how these conflicts may shape debt structure choices (Colla et al., 2020) and secondly, a simple debt ratio fails to capture the changes in debt structure when the company takes up a new debt or retires the old one (Rauh & Sufi, 2010). The Malaysian capital market further provides a unique perspective due to the prevalent usage of Islamic debt as an alternative for debt financing. The descriptive analysis reveals that subordinate bonds are excluded due to their empirical absence and capital lease, under MFRS 16, is used as a strategic tool to preserve liquidity and financial slack. There is a decline in long-term borrowing from 2022 to 2025, accompanied by a substantial rise in sukuk utilisation. This sector-specific inclination towards sukuk was driven by the adoption of the SRI-Linked Sukuk Framework in 2022, allowing companies to use Islamic debt for general corporate purposes while securing low-cost funding. The correlation results indicate that Tobin-Q and ROE are negatively associated with short-term debt instruments. This strongly corroborates the pecking order theory; profitable companies prioritise internal retained earnings over external debt. Simultaneously, credit lines have a positive correlation with asset tangibility, supporting the trade-off theory in which fixed assets function as collateral to secure tax-shield advantages from liabilities.

DOI: 10.35631/AIJBS.829042**Keyword:**

Capital Structure, Debt Heterogeneity, Debt Structure, Firm Characteristics.



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Introduction

The capital structure of companies has always been a major focus in corporate finance, with theoretical frameworks like the pecking order theory and the trade-off theory attempting to clarify the factors influencing a company's debt-equity composition. Despite extensive research, these theories frequently yield contradictory predictions for optimal leverage and financing preferences, especially in emerging countries such as Malaysia (Ebrahim et al., 2013). Conventional capital structure theories sometimes treat debt as a singular entity, neglecting the varying impacts of short-term and long-term debt, which can have diverse consequences on profitability and risk profiles (Hatem, 2017). The utilisation of debt instruments, differing in duration and form, can affect a company's operational flexibility and risk exposure, hence providing a more detailed perspective for assessing capital structure decisions (Chin et al., 2021).

Recent study indicates that assuming debt as a uniform entity overlooks essential company-specific dynamics (Colla et al., 2020). The study of capital structure needs to recognise the specific debt structure of a company, which encompasses the types of debt instruments used, maturity profiles, priority of claims, and the level of debt specialisation, as it is essential for understanding corporate financing decisions and their subsequent impact on firm value (Jadiyappa et al., 2020). A company's capital structure is not simply leveraging ratios, such as debt ratio or debt-to-equity, but rather, it is a purposeful strategic debt planning based on information asymmetry, agency costs, asset characteristics and bankruptcy risks. Breaking down the total debt into distinct categories facilitates a detailed analysis of how firm attributes such as profitability, liquidity, and asset tangibility influence the strategic utilisation of various debt types, providing insights that surpass general classifications of internal versus external financing (Le et al., 2021). This in-depth viewpoint on debt structure allows a thorough reassessment of conventional capital structure theories by examining the utilisation of certain debt instruments in relation to firm-specific characteristics, rather than merely focusing on total debt. The structure of debt can clarify how various kinds of debt reduce information asymmetry and agency costs, hence enhancing the explanatory capacity of both the pecking order and trade-off theories (Yıldırım et al., 2018).

This study seeks to understand how these heterogeneous debt components interact with various firm-specific attributes within the Malaysian corporate landscape. This study contributes to the debt structure literature in three ways. Firstly, the financial landscape in Malaysia is characterised by a mix of traditional and Islamic finance alongside varying levels of corporate governance, and this offers an opportunity to study the granularity of debt to the companies'

characteristics that adopt both types of financial instruments. Secondly, Malaysian companies have concentrated ownership and debt functions as a governance device alongside codes like the MCCG (Chow, 2024), which makes understanding the debt structure crucial. Lastly, there is a distinctive gap in the capital structure study of Malaysian companies that breaks down debts to a granular level. As seen in the review of literature, capital structure study is limited to the conventional measurements of debts, such as debt ratio and debt-to-equity. Therefore, this study attempts to investigate the debt structures of the top 50 Malaysian companies and their firm characteristics to gain a more nuanced understanding of financing decisions beyond the generalised assumptions of existing theories. In particular, the research disaggregates debt to analyse how different types of debt instruments are associated with specific firm characteristics, a distinction often overlooked in aggregate leverage analyses.

Literature Review

The literature surrounding capital structure remains anchored between the trade-off theory and the pecking order theory, both of which seek to explain how companies optimise their leverage to balance costs, information asymmetry, and agency concerns (Ebrahim et al., 2013). These frameworks suggest that companies adjust their capital structure to minimise agency costs while navigating sector-specific constraints, though empirical evidence on their applicability remains inconclusive in the Malaysian market (Sahudin et al., 2019). Furthermore, the emergence of Islamic financing alternatives like sukuk has introduced a new dimension to these traditional debates, as the Islamic capital market is increasingly becoming the preferred financial source for Malaysian companies. The coexistence of conventional and Shariah-compliant financing necessitates a re-evaluation of whether standard determinants, such as asset tangibility and profitability, affect these types of debts differently or not. (Akbar et al., 2022).

The pecking order theory suggests that securities with the lowest information costs, such as short-term and secured debt, should be issued before long-term and unsecured obligations, a sequencing hypothesis that has nonetheless received mixed empirical support when tested against the actual maturity and priority profiles of corporate debt portfolios (Frank & Goyal, 2002; Sheikh et al., 2012). On the other hand, the trade-off theory posits that companies can reach an optimal capital structure by balancing the tax advantages of debt financing against the prospective costs of financial distress and bankruptcy (Hackbarth et al., 2007). This is achieved by using the best mix and repayment ranking of bank loans versus market debt, where weaker companies rely solely on renegotiable bank credit while stronger companies add market debt on top of senior bank loans (Hackbarth et al., 2007). Companies with higher asset tangibility also recommend increasing leverage to capture tax shields, as their tangible assets serve as collateral to reduce potential bankruptcy cost. Aside from the main capital structure theories, the signalling theory suggests that managers utilise debt issuance as a strategic mechanism to convey private information regarding prospects to the market. Specifically, the issuance of debt acts as a positive signal of management's confidence in the firm's future profitability, suggesting that the company is currently undervalued by the market.

In the Malaysian context, the integration of sukuk into these traditional frameworks introduces a distinct layer of complexity, as these instruments are structured to comply with Shariah principles while often impacting company financial performance. Unlike conventional bonds, the strategic issuance of sukuk is often driven by agency cost considerations, as companies with high free cash flow and growth opportunities utilise these instruments to align their

financing choices with Shariah compliance while minimising information asymmetry (Halim et al., 2016). This is because the securitisation inherent in sukuk structures ensures a direct link to tangible, recognised assets, which discourages managerial expropriation (Paltrinieri et al., 2019). Incorporating sukuk into the debt structure analysis provides a more unique view of how companies diversify their liabilities because sukuk issuance is often independent of internal funding availability and information costs and as such, it offers a strategic alternative that potentially decouples corporate financing decisions from the traditional theories (Grassa & Miniaoui, 2017).

Firm Characteristics and Debt Structure

Empirical evidence suggests that firm-specific attributes such as asset tangibility, growth opportunities, and cash flow volatility are primary determinants in shaping these heterogeneous capital structures (Colla et al., 2013). Asset tangibility often dictates the capacity for collateral-based borrowing. Companies that hold more tangible assets typically face lower expected bankruptcy costs, which enables them to tap a broader range of debt instruments. In the Malaysian context, companies with a higher proportion of tangible assets are significantly more levered, consistent with the trade-off prediction that fixed assets serve as effective collateral, reduce lenders' risk, and lower the agency costs of debt, thereby enabling companies to issue more debt at lower financing costs (Ebrahim et al., 2013).

Companies with significant growth opportunities often face greater information asymmetry and may prefer equity or specialised debt to maintain financial flexibility, as high growth prospects are frequently tied to intangible assets that provide limited collateral value (Khaki & Akin, 2020). Empirical research within the Malaysian market has demonstrated that companies with higher growth opportunities often exhibit a negative and significant relationship with various debt measures, suggesting that these entities prioritise financial flexibility to fund expansion without triggering restrictive debt covenants (Saif-Alyousfi et al., 2020).

Companies maintaining high liquidity ratios may experience a diminished need for external leverage, as readily available cash flows act as a buffer against unforeseen shocks, thereby reducing the necessity for debt-based monitoring (Othman et al., 2024). Evidence from the Malaysian market supports these findings, where liquidity levels often exhibit an inverse relationship with long-term debt, suggesting that companies with substantial cash reserves may favour internal funding or utilise short-term financing to avoid the rigidities of long-term obligations (Sanil et al., 2018). Furthermore, recent analyses of the Malaysian oil and gas sector confirm that liquidity remains a significant determinant of capital structure, as companies with sufficient internal reserves effectively substitute liquidity for leverage to circumvent the costs of financial distress (Marimuthu et al., 2023).

Beyond these liquidity and tangibility factors, firm performance, which is often proxied by return on equity, serves as a critical determinant, with empirical trends frequently indicating a negative relationship between profitability and debt ratios (Dalwai & Sewpersadh, 2021; Julkid & Lau, 2020). Companies with lower performance metrics may be forced to rely on debt financing to bridge funding gaps because they often lack the internal capital reserves required to sustain operations during periods of market instability (Nuanpradit, 2023). This finding concurs with the pecking order hypothesis, which posits that companies with substantial profits will increase the retained funds rather than seek outside financing, thereby curbing their dependence on borrowed capital. Empirical observations in Malaysia often reflect a stronger

adherence to the pecking order model where profitability inversely correlates with leverage (Mohamed et al., 2015).

Classification of Debt Structure and Firms Characteristics

Bank Loan and Bond Financing

From a borrower's perspective, the trade-off between bank debt and bond financing lies in the fact that financial providers influence companies more efficiently than arm's-length investors (bond investors). On the other hand, bond investors have a lower opportunity cost of capital than the former. The trade-off theory explains the choice of preference between bank loans and bond financing. Larger companies and those with larger average issue sizes exploit the scale economies in the issuance costs of public debt and, thus, have lower proportions of private debt (Grassa & Miniaoui, 2017).

The trade-off theory explains the choice of preference between bank loan and bond financing. On one hand, flexible bank debt offers a superior trade-off between tax shields and bankruptcy costs. On the other hand, the ease of renegotiation limits bank debt capacity. The optimal debt structure for weak companies (i.e., those with little bargaining power in workouts) is high-bank-debt capacity, and these companies use bank debt exclusively; in contrast, strong companies with low-bank-debt capacity use a mix of bank debt and market debt, with the former being senior (Hackbarth et al., 2007).

With significant variations in capital market development, large Malaysian companies often prefer public bond issuance to minimise monitoring costs, whereas smaller entities rely heavily on bank credit to compensate for their limited access to public debt markets (Matemilola et al., 2017; Jaafar et al., 2017). This divergence shows that capital structure depends not only on firm-specific preferences but also on the accessibility and maturity of the local financial infrastructure.

Credit lines And Commercial Papers

Credit lines primarily focus on managing corporate short-term liquidity needs via credit lines provided by banks or through cash holdings. Credit lines emerge as a key part of the optimal capital structure because they offer access to credit that provides a borrower with the financial slack needed given the risk of operating losses. They are the only source of liquidity that offers the same degree of flexibility and safety as cash (Ippolito & Orive, 2012). Aside from these credit facilities, commercial papers serve as short-term, unsecured promissory notes issued by companies to address immediate working capital requirements at interest rates generally lower than those of traditional bank loans (Lemmon & Zender, 2010). These instruments typically appeal to large, creditworthy corporations, allowing them to bypass traditional financial intermediaries and capitalise on institutional investor liquidity (Rauh & Sufi, 2010).

While credit lines provide necessary insurance for companies with volatile cash flows, commercial papers demand a high credit rating, effectively restricting their issuance to larger, established entities that minimise bankruptcy risk (Kacperczyk & Schnabl, 2009). Therefore, companies with substantial tangible assets and stable growth rate often utilise commercial papers to optimise their cost of capital, whereas companies characterised by informational opacity or liquidity constraints rely more heavily on revolving credit lines to navigate potential

financial volatility (Hackbarth et al., 2006). Smaller companies, facing higher information asymmetry and limited collateral, often lack the credit standing required for commercial paper markets and thus consider revolving credit lines more suitable for their financing needs (Altunbaş et al., 2009).

Capital Leases

Capital leases function as an alternative financing instrument, allowing companies to acquire essential assets while preserving cash flow through periodic payments. Under the implementation of MFRS 16, the accounting practice for these leases has shifted significantly, requiring companies to recognise nearly all leases on their balance sheets as right-of-use assets and corresponding lease liabilities (Segal & Naik, 2019). This reporting transition forces companies to acknowledge the full extent of their long-term debt obligations, which effectively reduces reported financial slack and can alter a company's perceived leverage ratios.

Companies with higher asset tangibility often leverage capital leases to secure collateralised financing, while those prioritising growth and liquidity may favour these instruments to bypass restrictive bank debt covenants (Nikolov et al., 2018). The natural flexibility of leasing allows companies to navigate periods of financial volatility by avoiding the strict cash-flow-based covenants frequently attached to traditional bank credit lines (Sufi, 2007). Additionally, companies experiencing rapid growth often exhibit a heightened demand for capital leases to mitigate potential underinvestment issues that might otherwise arise from stringent debt market conditions (Hempel et al., 2024). Conversely, larger, more mature companies with stable profitability may utilise capital leases strategically to match asset maturity, thereby reducing agency costs associated with information asymmetry (Lim, 2024).

Subordinated Bond, Senior Bond and Sukuk Financing

Within the fixed-income market, senior bonds provide investors with primary claims on assets during liquidation, while subordinated bonds occupy a secondary position, bearing higher risk and requiring commensurately higher yields. In contrast to these conventional debt instruments, sukuk represents an alternative financing structure, conceptually functioning as an asset-based or asset-backed participation certificate rather than a traditional debt obligation (Nagano, 2016). Unlike conventional bonds, which are predicated on interest-bearing debt, sukuk financing is tied to the performance of underlying physical assets. While conventional bonds involve interest-based obligations, sukuk holders possess a beneficial interest in the underlying assets, though they typically lack voting rights or managerial influence over the collateral (Guizani, 2020).

Firm characteristics like asset tangibility, liquidity, profitability, growth opportunities, and size notably shape whether companies issue senior bonds, subordinated bonds, or sukuk. The impact of asset tangibility on sukuk issuance is debated, as some findings suggest it is insignificant, particularly in Malaysian samples where sukuk structures can blend both tangible and intangible assets, which may soften the trade-off traditionally tied to collateral value (Ibnu & Lubis, 2022). Highly profitable companies with strong cash reserves typically rely on senior unsecured bonds because their investment-grade credit standing allows them to borrow at favourable yields and avoid the extra monitoring premium charged on junior tranches (Rauh & Sufi, 2010). Lower-rated and less profitable issuers, by contrast, more often incorporate subordinated bonds into their debt structure to spread priority across classes and accommodate

investors with differing risk preferences (Rauh & Sufi, 2010). Companies facing abundant growth opportunities are also drawn toward exchange-based sukuk, whose asset-backed and risk-sharing design helps address the information asymmetry and debt-overhang concerns common among growing businesses (Wardhana & Heru, 2022). Finally, size plays a dual role: large issuers benefit from scale economies that materially lower unit issuance costs on public bond markets, while smaller companies with greater information asymmetry costs often face higher constraints in accessing diverse debt markets (Colla et al., 2013).

Methodology

Sample Selection

The sample chosen is from the top 50 companies in Malaysia. We believe the top 50 companies are sufficient to achieve the research objective because, as of the year ending 2025, they represent 68% of the total market capitalisation. We retrieved the market capitalisation values from the LSEG Refinitiv database and ranked them from highest to lowest. We omit companies that are from the financial, banking and insurance sectors, as they are subject to different laws and regulations. We also exclude companies with incomplete four-year data to ensure the study's completeness. The study also seeks to exclude the effect of the COVID-19 pandemic by limiting the sample from 2022 to 2025. While the economic recovery can be seen as soon as the fourth quarter of 2022, 2023 is regarded as the year Malaysia economically recovered from the COVID-19 recession era because, as of the second quarter of 2023, Malaysia's GDP had exceeded pre-pandemic levels by more than 10% (Bank Negara Malaysia, 2023).

Variable Selection

Debt Structure

The variable selection for debt structure follows the basic classification of debt by Rauh and Sufi (2010) and Colla (2020). However, due to the differences in capital market environments and the generally accepted accounting practices adopted in the annual reports, we categorise the classifications of debts so that they suit the debt structure data provided by the companies' annual reports. The terms are also adjusted to suit the standard terms used in annual reports. The data is taken directly from the annual reports using the financial statements as well as the notes to the accounts, specifically on borrowing and leases. We then scale the raw data of individual debts to total debts to improve the presentation and the data analysis. The definition of debt structure is shown in Table 1.

Table 1: Classification of Debt Structure

Types of Debt	Explanation
Long-Term Bank Loan	This includes all non-current borrowings from financial institutions, such as non-current term loans, non-current revolving credits and other non-current bank facilities. This excludes sukuk, bonds, and lease liabilities.
Credit Line	This includes short-term uncommitted lines, such as current revolving credits, bank overdrafts, bankers' acceptances, and trade facilities.

Commercial Paper	This includes short-term corporate money market notes under a dedicated commercial paper programme.
Capital Leases	This includes total lease liabilities under MFRS 16, combining both current and non-current lease liabilities.
Senior Bond	This includes non-current unsecured senior corporate bond tranches, focusing only on the long-term conventional bonds and medium-term notes.
Subordinated Bond	This refers to deeply subordinated or hybrid debt instruments, such as redeemable instruments and subordinated notes.
Short-term Bank Loan	This includes current portion of term loans repayable within 12 months only, excluding short-term revolving credit, sukuk, bonds, and leases.
Sukuk	This refers to all current and non-current Shariah-compliant financing notes, which are Sukuk Musharakah, Sukuk Wakalah, Sukuk Murabaha and Islamic medium-term notes.
Total Debts	Total Borrowings (Current + Non-Current Borrowings) + Total Lease Liabilities (Current + Non-Current Lease). Excludes trade payables, taxes and provisions.

Firm Characteristics

We incorporate firm-level attributes, namely firm performance, profitability, firm size, asset tangibility and growth opportunity, as measurements of firm characteristic variables to account for their established influence on debt structure decisions. The variables are calculated using the data retrieved from annual reports before they are transformed into financial ratios. These determinants were adopted by Colla et al. (2013) and Rauh and Sufi (2010) in their debt structure studies. The definition of each characteristic is defined in Table 2.

Table 2: Firm Characteristics

Firm Characteristics	Variables	Explanation
$\text{Tobin-Q} = \frac{\text{Market Capitalisation}}{\text{Total Assets}}$	Market Capitalisation	We multiply the net outstanding ordinary shares by the closing share price on the last trading day of the company's financial year. The closing price is usually included in the annual reports; however, if it does not, then we do a manual search on the Bursa Malaysia website.
	Total Assets	The sum of non-current assets and current assets taken from the Statement of Financial Position.
$\text{Return on Equity} = \frac{\text{NPAT}}{\text{Ordinary Equity}}$	Net Profit After Tax	Profit for the financial year (after tax) attributable to owners of the parent/company.
	Ordinary Equity	Total Equity Attributable to Owners, excluding Non-Controlling Interests
$\text{Asset Tangibility} = \frac{\text{Tangible Assets}}{\text{Total Assets}}$	Total Tangible Assets	Total assets minus all intangible assets (goodwill, dealership rights, franchise fees, and other intangible assets). Concession assets are counted as tangible.

Firm Size = $\log(\text{Total Assets})$	Total Assets	The sum of non-current assets and current assets taken from the Statement of Financial Position.
Liquidity = $\frac{\text{Cash}}{\text{Assets} - \text{Cash}}$	Total Cash and Bank	Gross cash and bank balances taken from the notes to the accounts of Cash & Cash Equivalents Note (before netting overdrafts).
Growth = $\frac{\text{Market Capitalisation}}{\text{Book Value of Assets}}$	Book Value of Net Assets	Total equity attributable to owners of the parent/company from Statement of Financial Position. We exclude the non-controlling interest portion.
	Total Liabilities	The figures are taken straight from "Total Liabilities" on the Statement of Financial Position.

Results and Discussion

Descriptive Analysis

Table 3: Descriptive Analysis of Debt Structure and Firm Characteristics

	N	Min	Max	Mean	Std. Dev	Skew	Kurtosis
<i>Firm Characteristics</i>							
Tobin-Q	200	0.040	9.238	1.416	1.618	2.306	5.462
Return on Equity	200	(106.63)	13.641	(0.300)	7.621	(13.754)	193.253
Asset Tangibility	200	0.474	1.0000	0.934	0.113	(2.758)	7.735
Firm Size	200	5.926	8.3137	7.108	0.542	(0.252)	(0.604)
Liquidity	200	0.002	2.1343	0.190	0.277	4.475	23.839
Growth	200	(0.499)	52.418	3.647	7.431	4.747	23.970
<i>Debt Structure</i>							
Long-term Borrowing	200	0.000	0.890	0.182	0.214	1.418	1.459
Credit Line	200	0.000	0.967	0.183	0.268	1.628	1.501
Commercial Papers	200	0.000	0.088	0.002	0.011	6.488	42.640
Capital Lease	200	0.001	1.000	0.224	0.295	1.637	1.630
Senior Bond	200	0.000	0.913	0.090	0.200	2.595	6.330
Short-term Borrowing	200	0.000	0.873	0.081	0.125	2.892	11.364
Sukuk	200	0.000	0.962	0.233	0.285	0.998	(0.196)

Table 3 shows the descriptive data for debt structure. All types of debts are divided by total debts (Total Borrowings (Current + Non-Current Borrowings) + Total Lease Liabilities (Current + Non-Current Lease). Excludes trade payables, tax, and provisions). The sample consists of the top 50 companies from the years 2022 until 2025. The firm characteristics are Tobin-Q (Market Capitalisation/Total Assets), Return on Equity (Net Profit/Total Ordinary Equity), Tangibility (Tangible Assets/Total Assets), Size (log of Total Assets), Liquidity (Cash and Bank/[Total Assets – Cash and Bank]) and Growth (Market Capitalisation/Book Value of Net Assets)

Table 3 summarises the descriptive data for debt structure. Subordinate bonds are excluded from the study due to their empirical absence within the sample set. A comprehensive review of the financial disclosures of the top 50 Malaysian public-listed companies revealed zero utilisation of subordinate debt instruments. This exclusion could be because they carry lower priority in repayment during bankruptcy (Colla et al., 2020), which forces issuers to pay a higher risk premium or coupon rate (Hasan & Suzuki, 2021). Senior bonds or sukuk provide

cheaper and far more flexible funding options for regular corporations. Furthermore, subordinated debt is heavily concentrated within the banking sector to satisfy regulatory capital frameworks (Resti, 2016). Since the sample of the top 50 companies excludes those from the financial sector, these companies do not issue subordinate bonds.

From the list of debt, we can see the immense popularity of capital leases as a source of financing. All companies in the sample have capital leases in their debt structure. The maximum value of 1 in the capital lease shows that there are companies that solely adopt capital lease and no other debts. While past literature suggested that leasing allowed companies to bypass bank monitoring and maintain off-balance sheet operational freedom, this motivation has been fundamentally neutralised by the introduction of MFRS 16. Instead, companies opt for capital leases to preserve their liquidity and gearing ratio. In the case of Inari Amertron Berhad, for example, the company states that it retired the last of its conventional bank loans in 2021 to maintain a strategy of high liquidity and low gearing. By utilising leases for its manufacturing footprint while remaining free of bank loans, Inari Amertron maintains maximum financial flexibility for potential large-scale acquisitions or further technological upgrades in the semiconductor sector. The least popular type of debt (excluding subordinate bonds) is commercial paper.

Table 4: Debt Structure from 2022 to 2025

Debt Structure	2022	2023	2024	2025
Long-term Borrowing	0.2219	0.1931	0.1700	0.1445
Credit Line	0.1616	0.1911	0.2101	0.1708
Commercial Papers	0.0015	0.0016	0.0020	0.0023
Capital Lease	0.2361	0.2301	0.2121	0.2196
Senior Bond	0.0828	0.0903	0.0892	0.0977
Short-term Borrowing	0.0946	0.0691	0.0809	0.0809
Sukuk	0.1892	0.2247	0.2357	0.2841

Table 4 shows the trend analysis data for debt structure from 2022 until 2025. All types of debts are divided by total debts (Total Borrowings (Current + Non-Current Borrowings) + Total Lease Liabilities (Current + Non-Current Lease). Excludes trade payables, taxes and provisions).

Table 4 displays the year-to-year trend analysis. Sukuk is clearly gaining its foothold as the percentage of the sukuk-to-total-debt ratio increases from 2022 to 2025. This specific 2022-2025 window could potentially be due to the SRI-Linked Sukuk Framework, a regulatory framework launched by the Securities Commission Malaysia (SC) on 30 June 2022, which allows companies to use the proceeds from sukuk issuance for general corporate purposes, provided they legally commit to improving their overall sustainability performance. This is supported by the data from the Securities Commission Malaysia (2026), where outstanding SRI Sukuk grew exponentially from just RM5.3 billion in 2020 to RM52.3 billion by the end of 2025, dominating a staggering 85% of the total corporate bond segment in Malaysia by the end of 2025. This trend could explain the decline in long-term borrowing, as investors find green (SRI) sukuk attractive and are willing to accept lower returns, which leads to low-cost funding. (Pirgaip & Arslan-Ayaydin, 2024)

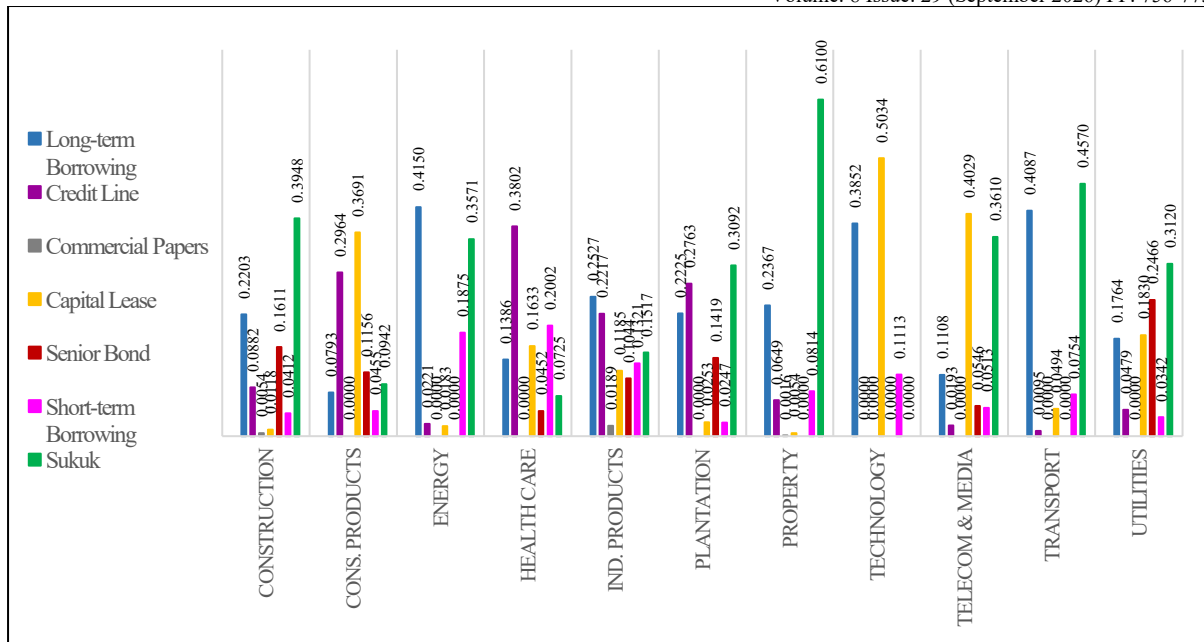


Figure 1: Debt Structure by Sectors

The classification of sectors follows Bursa Malaysia, which consists of eleven sectors. In Figure 1, companies in the property sector vastly prefer sukuk as their choice of debt. In fact, sukuk is the main choice for several sectors as well, such as construction, transportation and logistics, plantation and utilities. Sectors like technology, consumer products, telecommunication and healthcare prefer to use capital leases. This could be because they deal with equipment that becomes obsolete in 3 to 5 years. Capital leases often include terms for upgrades, disposal, or structured buyouts. This allows the company to continuously utilise state-of-the-art assets without suffering from capital depreciation losses or disposal problems. Perhaps the most prominent observation is the preference of companies in the health sector to opt for a credit line as their main source of debt financing. This reliance on credit lines likely reflects the industry's need for high-frequency liquidity to manage working capital volatility and the rapid turnover of medical supplies.

Spearman Correlation Analysis

Table 5 details the correlation between firm characteristics and specific types of debts (Table 5(a)) and the correlation results between the debt structure itself (Table 5(b)). Key corporate metrics do not meet the normality assumption, showing significant skewness and kurtosis. Therefore, to examine the statistical associations between the capital structure and corporate performance variables, this study employs Spearman's rank-order correlation analysis as the primary non-parametric estimator. This ensures a mathematically robust, stable, and unbiased assessment of the monotonic relationships underlying the hypothesised capital structure determinants. Furthermore, this approach mitigates the influence of extreme outliers inherent in the financial data of Malaysia's largest companies, which often exhibit non-linear distributions (Chaleeda et al., 2019; Heng et al., 2012). Both tables are shown together to provide a comprehensive view of how internal firm attributes influence the choice of various financing instruments among Malaysian companies.

Table 5: Spearman Correlation Analysis

Table 5 (a): Correlation between Debt Structure and Firm Characteristics							
Debt Structure		Tobin Q	ROE	Tangibility	Firm Size	Liquidity	Growth
Long-term Borrowing	β	(0.133)	(0.154)*	(0.098)	(0.388)**	(0.018)	(0.090)
	Sig.	0.061	0.029	0.167	0.000	0.804	0.207
	N	200	200	200	200	200	200
Credit Line	β	(0.023)	(0.024)	0.167*	(0.137)	(0.370)**	(0.093)
	Sig.	0.749	0.737	0.018	0.053	0.000	0.192
	N	200	200	200	200	200	200
Commercial Papers	β	(0.155)*	(0.142)*	0.168*	0.130	0.016	(0.157)*
	Sig.	0.028	0.045	0.017	0.066	0.823	0.026
	N	200	200	200	200	200	200
Capital Lease	β	0.296**	0.245**	(0.151)*	(0.127)	(0.026)	(0.261)**
	Sig.	0.000	0.000	0.032	0.073	0.719	0.000
	N	200	200	200	200	200	200
Senior Bond	β	(0.286)**	(0.187)**	(0.152)*	0.494**	0.037	(0.223)**
	Sig.	0.000	0.008	0.031	0.000	0.598	0.001
	N	200	200	200	200	200	200
Short-term Borrowing	β	(0.259)**	(0.312)**	(0.007)	0.259**	(0.010)	(0.242)**
	Sig.	0.000	0.000	0.920	0.000	0.886	0.001
	N	200	200	200	200	200	200
Sukuk	β	(0.243)**	(0.010)	(0.153)*	0.302**	(0.156)*	(0.075)
	Sig.	0.001	0.886	0.030	0.000	0.028	0.288
	N	200	200	200	200	200	200

Table 5 (b): Correlation between Firm Characteristics								
Debt Structure		LTB	Credit Line	CP	Capital Lease	Senior Bond	STB	Sukuk
Long-term Borrowing	β	1.000	(0.030)	0.023	(0.414)**	0.134	0.443**	0.025
	Sig.	.	0.674	0.745	0.000	0.058	0.000	0.728
	N	200	200	200	200	200	200	200
Credit Line	β	(0.030)	1.000	0.132	(0.171)*	(0.013)	0.050	(0.271)**
	Sig.	0.674	.	0.063	0.015	0.859	0.479	0.000
	N	200	200	200	200	200	200	200
Commercial Papers	β	0.023	0.132	1.000	(0.244)**	0.252**	0.177*	(0.011)
	Sig.	0.745	0.063	.	0.000	0.000	0.012	0.877
	N	200	200	200	200	200	200	200
Capital Lease	β	(0.414)**	(0.171)*	(0.244)**	1.000	(0.182)**	(0.360)**	(0.317)**
	Sig.	0.000	0.015	0.000	.	.010	0.000	0.000
	N	200	200	200	200	200	200	200
Senior Bond	β	0.134	(0.013)	0.252**	(0.182)**	1.000	0.008	(0.028)
	Sig.	0.058	0.859	0.000	0.010	.	0.905	0.690
	N	200	200	200	200	200	200	200

Short-term Borrowing	β	0.443**	0.050	0.177*	(0.360)**	0.008	1.000	(0.042)
	Sig.	0.000	0.479	0.012	0.000	0.905	.	0.558
	N	200	200	200	200	200	200	200
Sukuk	β	0.025	(0.271)**	(0.011)	(0.317)**	(0.028)	(0.042)	1.000
	Sig.	0.728	0.000	0.877	0.000	0.690	0.558	.
	N	200	200	200	200	200	200	200

Table 5 shows the two-tailed Spearman Correlation Analysis for debt structure and firm characteristics. All debts are divided by total debts (Total Borrowings (Current + Non-Current Borrowings) + Total Lease Liabilities (Current + Non-Current Lease). Excludes trade payables, tax, and provisions). The sample of 200 consists of 50 companies from the years 2022 until 2025. The firm characteristics are Tobin-Q (Market Capitalisation / Total Assets), Return on Equity (Net Profit / Total Ordinary Equity), Tangibility (Tangible Assets / Total Assets), Size (log of Total Assets), Liquidity (Cash and Bank / [Total Assets – Cash and Bank]) and Growth (Market Capitalisation / Book Value of Net Assets)

**Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Long-term borrowing is negatively and significantly correlated with firm size, suggesting that larger organisations in the Malaysian market potentially substitute conventional long-term loans with more sophisticated or Shariah-compliant financing instruments, like sukuk, to optimise their capital structure. It is also negatively correlated with ROE, indicating that as profitability improves, these companies may prioritise internal equity or retained earnings over traditional bank lending (Lee & Manual, 2019). Short-term borrowing exhibits significant negative correlations with performance, profitability, and growth while maintaining a positive correlation with firm size. Larger companies preferring short-term borrowing to long-term debt is in line with the signalling theory, where they utilise short-term borrowing to signal creditworthiness and capture the lower interest rates associated with an upward-sloping yield curve. The negative association between liquidity and short-term debt reinforces the pecking order theory, as companies with sufficient internal cash flows preferentially retire obligations rather than incurring additional debt. These companies generate sufficient internal cash flow to sustain working capital demands, rendering short-term external credit redundant (Saif-Alyousfi et al., 2020). Table 6 further reveals a significant, positive correlation between long-term borrowing and short-term borrowing, indicating that these two debt categories tend to coexist rather than displace one another within the overall funding mix. This complementary relationship suggests that Malaysian companies adopt a tiered financing strategy where long-term obligations provide stability for capital expenditures, while short-term instruments address fluctuating operational liquidity requirements (Öhman & Yazdanfar, 2017).

Credit line is shown to be positively and significantly correlated with firm tangibility, suggesting that companies with higher asset bases find it easier to secure flexible short-term revolving credit facilities (Almeida & Campello, 2007). The significant negative correlation to liquidity is to be expected because companies with substantial cash holdings utilise that liquidity to satisfy short-term obligations, thereby reducing the dependency on revolving credit lines. Furthermore, the negative correlation observed between credit lines and sukuk suggests a potential displacement effect, where companies with higher fixed asset ratios often prefer collateral-backed revolving facilities that provide immediate liquidity over the structural complexities of sukuk issuance (Smaoui & Ghouma, 2019). It means that, while sukuk remains a critical instrument for long-term capital formation, companies with high asset tangibility prioritise the operational agility afforded by credit lines to navigate cyclical funding needs.

Table 5 further reveals a significant negative correlation between commercial paper issuance and firm performance (Tobin's Q), profitability (ROE), and growth. Commercial paper is usually utilised by highly profitable, creditworthy companies to secure a lower cost of short-term borrowing. However, this negative relationship still aligns with the pecking order theory, which suggests that highly profitable companies prioritise internal retained earnings over debt instruments. Furthermore, this inverse relationship may reflect that high-growth, profitable companies in Malaysia prefer more stable, long-term financing vehicles to hedge against market volatility, effectively marginalising the use of short-term corporate paper (Bevan & Danbolt, 2002). Notably, Table 6 highlights a significant positive correlation between commercial paper and senior bonds, suggesting that companies use these instruments in tandem to manage their debt maturity profiles effectively.

The finding for capital lease reveals a significant positive correlation between capital lease utilisation and return on equity. By opting for lease financing over outright asset purchases, Malaysia's top 50 non-financial companies avoid large, immediate cash outflows, thereby preserving vital liquid capital reserves. This financial slack grants companies the strategic flexibility to redeploy liquid capital into high-yield operational projects and core business growth rather than tying up capital in depreciating, non-liquid fixed assets. Furthermore, because lease liabilities increase corporate leverage without diluting equity, the capital structure optimises the equity multiplier effect. This is further enhanced with the tax shield benefits derived from the simultaneous deduction of right-of-use (ROU) asset depreciation and implicit finance costs under MFRS 16; capital leasing effectively drives corporate net margins and enhances shareholder returns. What is more fascinating is that capital leases are significantly and negatively correlated with all types of debt structure, indicating that capital leases are used as substitutes for all types of debt. It implies that when Malaysian companies prioritise lease financing to finance their assets, it can promote the strategic minimisation of bankruptcy risk and the optimisation of tax shields that come with capital leases, ultimately maximising firm value, which is in line with trade-off theory.

The significant positive correlation of senior bonds and sukuk conforms with previous empirical findings, where sukuk is found to be no different from bonds, even with all the differences in their structure or type of contracts. Alfalah et al. (2022) found that bonds and sukuk are not only highly correlated, but also there are no significant differences between sukuk and bonds. That is, the correlation analysis of senior bonds and sukuk to firm characteristics shows similar results of significant and negative correlation to performance, profitability, asset tangibility and growth, while having a positive correlation to firm size. Companies with high performance and profitability adopt lower senior bonds and sukuk, reflecting a preference for internal financing or less restrictive capital instruments as they mature and scale (Khan, 2012). This reliance on internal funding by profitable companies remains consistent with the pecking order theory, where companies avoid the information asymmetry and signalling costs associated with issuing long-term public debt (Nazir et al., 2021; Jee et al., 2021). For the negative correlation results of growth, this could be due to senior bonds and sukuk being accompanied by the rigid, long-term repayment schedules and restrictive covenants that high-growth companies want to avoid as they require the agility and flexibility to pivot, invest, or downsize rapidly (Billett et al., 2007). Moreover, the inverse relationship between asset tangibility and the issuance of senior debt instruments suggests that companies with significant collateralisable assets may perceive the restrictive covenants often embedded in these long-term contracts as an unnecessary constraint on their operational autonomy (Hanifa et al., 2014).

Conclusion

This study examines the debt structures of the top 50 non-financial companies in Malaysia and investigates how specific debt types interact with internal firm characteristics. By breaking down total debt into distinct instruments rather than viewing capital structure solely as a single leverage ratio, this research provides a clearer and more granular understanding of corporate financing decisions on Bursa Malaysia. Because the financial metrics did not meet the normality assumption, the study applied Spearman's rank-order correlation analysis to ensure a mathematically robust, stable, and unbiased assessment of these relationships.

The descriptive analysis reveals important structural trends within the Malaysian corporate landscape. Subordinate bonds are entirely absent from the sample because they are heavily concentrated in the banking sector to satisfy regulatory frameworks, making them unpopular among the non-financial corporations. On the other hand, capital leases show universal adoption among all sampled companies. Despite the accounting changes brought by MFRS 16, capital leases continue to serve as a highly popular strategic tool for Malaysian companies to preserve cash flow, build financial slack, and ultimately optimise their return on equity. Crucially, the trend analysis from 2022 to 2025 highlights a significant shift in long-term corporate financing. While traditional long-term bank borrowing steadily declined, the reliance on sukuk significantly increased across several key sectors, such as property, construction, and utilities. This sector-specific preference was heavily driven by the regulatory rollout of the SRI-Linked Sukuk Framework in 2022. This framework allowed companies to utilise Shariah-compliant financing for general corporate purposes, attracting investors who are willing to accept lower returns and thereby providing companies with low-cost funding.

The correlation results offer strong empirical support for established capital structure theories. The significant negative relationships between firm performance, profitability, and short-term debt instruments, such as commercial papers and short-term borrowing, firmly reinforce the pecking order theory. Highly profitable Malaysian companies generate sufficient internal cash flows to sustain working capital demands, meaning they prioritise internal retained earnings and consider external short-term credit redundant. Meanwhile, the positive correlation between credit lines and asset tangibility supports the trade-off theory, demonstrating that companies with a higher fixed asset base can easily leverage their tangible assets as collateral to secure flexible revolving facilities.

In conclusion, this study demonstrates that capital structure decisions among top Malaysian companies are not random but are purposeful strategic choices shaped by firm characteristics, MFRS 16 accounting rules, and the growth of Islamic financial alternatives. For managers and policymakers, these findings underscore how regulatory frameworks and market incentives can successfully influence corporate financing behaviour in emerging markets.

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- Acknowledgements:** The authors would like to express their sincere gratitude to Universiti Teknologi MARA Perak Branch, Tapah Campus for providing the necessary resources and support throughout the course of this research. Special appreciation is extended to colleagues and peers who contributed valuable insights and constructive feedback, which greatly enhanced the quality of this paper.
- Funding Statement:** No Funding
- Conflict of Interest Statement:** The authors declare that there is no conflict of interest regarding the publication of this paper. All authors have contributed to this work and approved the final version of the manuscript for submission to the Advanced International Journal of Business, Entrepreneurship and SME's (AIJBES).
- Ethics Statement:** This study did not involve any human participants, animals, or sensitive data requiring ethical approval. The authors confirm that the research was conducted in accordance with accepted academic integrity and ethical publishing standards.
- Author Contribution Statement:** All authors contributed significantly to the development of this manuscript. Siti Nabilah Mohd Shaari was responsible for the literature review, conceptualization, methodology, and overall supervision of the study. Siti Nabilah and Nik Nurul Awani Nik Kamarudin handled data collection, analysis, and interpretation of results. Suryani Abd Raman and Norazira Abd Karim contributed to drafting, and critical revision of the manuscript. All authors read and approved the final version of the manuscript prior to submission.
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