

Debt Financing Strategies and Capital Structure Optimization in Saudi Arabian Corporations

Abstract

Saudi Arabian corporations are financing an unusually rapid phase of expansion, diversification, privatization, and infrastructure development while operating within a financial system shaped by concentrated ownership, Islamic financing principles, developing debt markets, and changing governance expectations. This review synthesizes recent evidence on debt financing strategies and capital structure optimization in Saudi corporations and evaluates whether conventional capital structure theories remain adequate in this institutional setting. A structured integrative review was designed around peer-reviewed studies identified through Scopus-oriented publisher platforms and major academic databases, emphasizing research published from 2020 to 2025 while retaining a small number of earlier studies with direct theoretical or Saudi-specific relevance. The synthesis is organized around leverage determinants, debt maturity, Islamic financing and Sukuk, governance and ownership, uncertainty and financing constraints, and the performance consequences of debt. Evidence consistently shows that profitability is associated with lower leverage, whereas firm size, tangibility, growth opportunities, market access, and governance conditions influence both debt capacity and adjustment toward target leverage. However, optimal financing in Saudi Arabia cannot be reduced to a single debt ratio. Sharia compliance, ownership concentration, geographic location, debt-market depth, borrowing costs, and firm-specific distress risk alter both the feasible financing set and the speed of adjustment. The review therefore proposes a multidimensional optimization perspective in which corporations jointly manage leverage level, maturity, instrument type, liquidity, refinancing exposure, and governance discipline. The main implication is that Saudi firms should adopt dynamic target ranges rather than static leverage benchmarks, combining conventional bank debt, Sukuk, retained earnings, and equity according to cash-flow resilience, asset structure, strategic investment needs, and market conditions. Policy development should continue to deepen domestic debt markets and improve disclosure so financing choices become more diversified, transparent, and competitively priced.

Keywords: Saudi Arabia; debt financing; capital structure; leverage; Sukuk; debt maturity; corporate finance; Vision 2030

1.Introduction

Capital structure is still one of the most enduring problems in corporate finance since the way companies finance their operations has a simultaneous impact on their investment capacity, level of risk, governance arrangements, liquidity, and the returns to shareholders. In Saudi Arabia the question has become more strategically significant as companies finance expansion linked to economic diversification and large-scale investment. The national situation is different from that in which many of the traditional financing theories were created. Saudi firms experience varying levels of influence from family, institutional, and state sources; Islamic principles have an effect on both the acceptability and the design of financing contracts; the domestic bond and Sukuk markets are developing; and access to finance varies according to company size, location, transparency, and industry. It therefore follows that capital structure optimization should be seen as a process that is conditioned by the institutional environment rather than as a simple attempt to find a general debt-to-equity ratio.

Recent research carried out in Saudi Arabia generally supports a number of global trends but also shows some local exceptions. Profitability usually leads to a reduction in leverage, in line with a preference for internal financing, while both firm size and tangible assets can increase a company's ability to borrow, whether it is a bank or a nonfinancial corporation (Khan et al., 2021; Khan et al., 2024). Firms that follow Sharia law tend to use less leverage and have particular financing hierarchies since the types of debt-like instruments that are allowed under Sharia differ from traditional interest-bearing debt (Alnori& Alqahtani, 2019; Guizani, 2020; Guizani& Ajmi, 2021). Location is also a factor: firms with their head offices in the major cities of Saudi Arabia show a different leverage pattern compared to those based elsewhere, something which is in agreement with the existence of information and access-to-finance frictions (Jerbeen&Alnori, 2020). Newer evidence has established a connection between leverage and performance, investment, governance, earnings management, debt maturity, and financing costs, thus supporting the idea that the appropriate level of debt varies according to the firm's characteristics and the state of the market rather than staying the same across different companies (Ghardallou, 2023; Alnori, 2024; Khan & Qasem, 2024).

The fact that the situation in Saudi Arabia also calls for a reexamination of the traditional tax-focused approach of the trade-off theory. In the past, the tax advantage of conventional interest-

bearing debt has not fitted smoothly with domestic firms operating under Zakat and Islamic financing rules. As a result, Makni (2020) concluded that the role of debt in determining firm value among Saudi listed companies might differ from what is usually expected. On the other hand, the increasing sophistication of the capital markets, the emergence of Sukuk, institutional reforms, and greater investor oversight have led to the development of new avenues by which debt can reduce financing costs, signal quality, keep managers in check, or increase distress exposure. Saudi research into capital structure therefore needs to combine corporate finance theory with views from the fields of institutional analysis, governance, and Islamic finance.

The review meets this need by summarising the latest evidence concerning the way that Saudi companies select, organise and optimise their debt. In addition to looking at the factors that determine leverage, it also examines debt composition and maturity, the financing hierarchy, market access, governance, risk and corporate performance. Its main point is that debt optimisation in Saudi Arabia is multidimensional in that a firm has to decide how much debt to use, which type of instrument to issue, when to refinance, how much liquidity to keep and how rapidly to reach its target while at the same time maintaining strategic flexibility.

2.Aim Of The Study

The aim of the study is to carry out a critical review of the current evidence concerning debt financing strategies and the optimization of capital structure in companies based in Saudi Arabia and to establish an integrated framework that connects firm characteristics, institutional conditions, financing instruments, risk, and corporate outcomes. Instead of testing one particular theory, the review examines the points at which the trade-off, pecking-order, agency, signaling, and institution-based explanations agree or differ in the Saudi environment.

3.Research Objectives

The review has five aims. The first of these is to identify the main firm-specific and macro-institutional factors that influence leverage in companies in Saudi Arabia. The second aim is to

look at the way in which conventional debt, Islamic financing methods, and Sukuk affect financing hierarchies and debt capacity. Third, it investigates how debt maturity, refinancing risk, governance, ownership, and information asymmetry influence the move towards target capital structures. Fourth, it examines the effects of leverage on performance, investment, financing costs, and managerial behaviour. Fifth, it draws conclusions regarding research, managerial, and policy priorities in order to improve capital structure decisions as part of Saudi Arabia's ongoing economic transformation.

4. Research Questions

Four questions guide the synthesis: Which determinants most consistently explain leverage and debt maturity in Saudi corporations? How do Sharia compliance and Sukuk alter the financing choices predicted by conventional capital structure theories? Under what firm and market conditions does additional debt support investment and value creation rather than increase distress or reduce performance? Which governance, market-development, and disclosure mechanisms can improve the speed and quality of capital structure adjustment?

5. Review Methodology

A structured integrative review design was adopted because the topic combines empirical corporate finance, Islamic finance, governance, and institutional evidence that a narrowly defined meta-analysis cannot capture adequately. The review used the attached Springer article only as a reference for scholarly organization, progression from theory to method and discussion, and disciplined presentation; it did not reuse its wording, dataset, arguments, or results. The evidence base for this manuscript was independently identified and synthesized.

Searches were designed for Scopus, Web of Science, ScienceDirect, Emerald Insight, SpringerLink, Wiley Online Library, Taylor & Francis Online, and Crossref-supported publisher records. Search strings combined terms such as “Saudi Arabia,” “Saudi listed firms,” “capital structure,” “debt financing,” “leverage,” “target leverage,” “debt maturity,” “Sukuk,” “Islamic financing,” “Sharia compliance,” “cost of debt,” “financial constraints,” “corporate governance,”

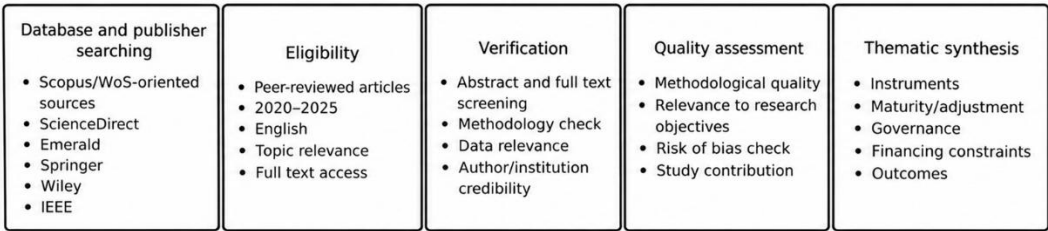
“ownership,” and “firm performance.” The principal publication window was 2020–2025, with earlier studies retained only when they provided direct Saudi evidence or an important bridge for interpreting recent findings. This approach prioritizes contemporary conditions without severing the literature's theoretical continuity.

Eligible studies were peer-reviewed journal articles with clear relevance to corporate financing, leverage, debt markets, or closely related financing constraints. We prioritized Saudi-specific studies, followed by GCC evidence, then international studies that offered a mechanism directly applicable to Saudi firms, such as uncertainty, fintech, governance quality, or leverage heterogeneity. We excluded studies that were purely descriptive without an identifiable financing implication, focused exclusively on household or sovereign finance without transferable corporate relevance, lacked verifiable bibliographic information, or substantially duplicated the same evidence without adding analytical value. No article-screening counts are reported because the review was a structured integrative synthesis rather than a PRISMA-style systematic review with a pre-registered, exhaustive corpus.

The evaluation of the studies placed particular importance on the peer-review status, the level of methodological transparency, the adequacy of the data, the way endogeneity was addressed, the robustness checks carried out, the relevance of the variables to capital structure theory, and the direct relevance of the findings to Saudi or similar emerging-market institutions. When making claims about causality or adjustments, research that had used dynamic panel estimators, fixed effects, instrumental variables, or carefully defined robustness procedures was given more weight in interpretation. Cross-sectional associations were dealt with in a more cautious manner. Before being included, the DOI information and bibliographic details were verified by referring to the publisher's or DOI database records.

The synthesis followed a thematic and theory-mapping procedure. Findings were coded into six domains: leverage determinants; financing hierarchy and Islamic instruments; debt maturity and dynamic adjustment; governance and ownership; uncertainty, financial constraints, and financing

cost; and performance or investment outcomes. The study first identified convergent findings, followed by contradictions and boundary conditions. The method is limited by heterogeneity in leverage measures, sample periods, sectors, and econometric specifications. It also cannot eliminate publication bias or guarantee that all relevant Arabic-language studies are represented. Nevertheless, triangulating Saudi, GCC, and mechanism-oriented international evidence provides a credible basis for identifying robust patterns and unresolved questions.



Structured integrative review: no fabricated screening counts; emphasis on transparent search logic and critical synthesis

Figure 1. Integrated framework for dynamic capital structure optimization in Saudi corporations

6. Thematic Literature Review And Critical Analysis

6.1 Theoretical foundations and the meaning of optimization

The trade-off theory predicts that firms balance the benefits of debt against expected distress and agency costs. In Saudi Arabia, that intuition remains useful, but the composition of benefits differs because conventional tax shields have historically been less central for many domestic firms, while financing access, governance discipline, and asset-backed structures may matter more. Makni(2020) found evidence consistent with the possibility that leverage does not automatically increase Saudi firm value, warning against importing tax-centered predictions

without institutional adjustment. Dynamic evidence from GCC firms likewise shows that no single theory fully explains financing decisions (Khan et al., 2024).

The pecking-order theory is often more consistent with the negative association between profitability and leverage. Profitable firms can fund investment internally and avoid issuance costs or external monitoring. Saudi studies of Islamic-compliant firms, however, show that the hierarchy itself does not match the conventional sequence of retained earnings, debt, and equity. Guizani (2020) and Guizani and Ajmi (2021) report that sale-based Islamic instruments can track financing deficits more closely than Sukuk, while equity can appear before Sukuk in the financing order. This means that information asymmetry interacts with contract permissibility and instrument availability.

Agency and governance theories add another layer. Debt can constrain free cash flow, yet excessive leverage can intensify risk shifting, covenant pressure, or managerial incentives to manage reported earnings. Nguyen et al. (2022) show internationally that firm-level governance and national governance jointly shape leverage choices, while Al-Faryan (2021) demonstrates the importance of governance arrangements for Saudi firm outcomes. The implication is that debt's disciplinary value depends on the quality of alternative monitoring mechanisms. Where boards, disclosure, and investor protection are stronger, firms may need less leverage as a governance substitute.

Table 1 summarizes the principal theoretical mechanisms and their Saudi-specific interpretation. The synthesis indicates that optimization should be defined as a target range that minimizes financing frictions while preserving investment capacity, not as a single point estimate. The target should vary with profitability, asset risk, maturity needs, governance quality, market access, and Sharia constraints.

192 **Table 1. Capital structure theories and their interpretation in the Saudi corporate context.**

Perspective	Core mechanism	Saudi interpretation
Trade-off theory	Debt benefits versus distress and agency costs	Useful as a balancing logic, but tax-shield assumptions require institutional adjustment; financing cost, distress resilience and instrument structure become central.
Pecking-order theory	Internal funds preferred when information asymmetry makes external finance costly	Often consistent with profitability-leverage evidence, but Islamic financing can alter the conventional order of debt and equity.
Agency/governance theory	Debt disciplines free cash flow but may create risk-shifting and covenant costs	Ownership concentration, board quality and disclosure determine whether leverage adds discipline or compounds governance risk.
Signaling/market access	Financing choices communicate quality and depend on investor access	Geographic location, disclosure, sustainability credibility and market depth can change both pricing and feasible leverage.
Institutional/Islamic finance	Financing set constrained by Sharia principles and contract design	Murabahah, Ijara and Sukuk should be modeled separately from conventional debt because costs, assets, investors and issuance frictions differ.

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194 **6.2Leverage determinants and financing capacity**

195 Across Saudi and GCC studies, profitability, size, tangibility, growth, liquidity, and market
196 conditions repeatedly appear as core determinants. Khan et al. (2021) find that bank-specific
197 characteristics and macroeconomic conditions explain Saudi bank leverage, while Jerbeen and
198 Alnori (2020) show that even corporate geographic location changes leverage behavior. Their

location result matters because it shows that financing capacity depends not only on balance-sheet fundamentals but also on proximity to financial institutions, investors, information networks, and advisory services.

Sharia status can impose an additional financing constraint. Alnori and Alqahtani (2019) report lower leverage and slower target adjustment among Sharia-compliant Saudi non-financial firms, suggesting that a narrower set of permissible financing channels can create a supply-side financing gap. Narayan et al. (2021), using a broader Islamic-stock setting, reach a partially different conclusion by finding faster adjustment for Islamic stocks, illustrating that religious screening does not have a uniform effect across markets. The contradiction is analytically useful: Sharia compliance may reduce feasible leverage in Saudi Arabia while risk-sharing characteristics or market development can accelerate adjustment elsewhere. Institutional context therefore moderates the apparent effect of religious orientation.

Firm size generally increases debt capacity through diversification, collateral, analyst coverage, and lender familiarity, while profitability commonly reduces external borrowing because retained earnings substitute for debt. Tangibility can support secured borrowing, especially in capital-intensive sectors. Growth has a more ambiguous effect: expanding firms require external finance, but high growth also raises concerns about underinvestment and distress. Khan et al. (2024) find that GCC financing decisions reflect a combination of these factors rather than one dominant theory. Bas et al. (2022) similarly show that, in developing-country family firms, firm size, family management, and country institutions jointly affect leverage, reinforcing the relevance of ownership and institutional heterogeneity to Saudi corporate groups. Macroeconomic conditions also influence financing flexibility: Guizani (2021) shows that Saudi investment sensitivity to internal cash flow varies with economic conditions, reinforcing the importance of cyclical financing capacity planning.

6.3Debt maturity, refinancing risk, and dynamic adjustment

Capital structure optimization requires deciding not only the amount of debt but also its maturity. Alnori (2023) finds that Saudi debt maturity is shaped by leverage, profitability, size, liquidity, asset maturity, firm risk, economic growth, and interest rates. The matching logic is particularly

important: long-lived assets should generally be financed with liabilities whose maturity does not force premature refinancing. Short-term debt may be cheaper or more flexible, but repeated rollover exposes firms to liquidity shocks and changing credit spreads.

Alnori (2024) extends this debate by examining investment, leverage, and debt maturity. The finding that leverage can support corporate investment in Saudi listed firms complicates the frequent assumption that debt mainly disciplines or constrains investment. For firms pursuing major capital expenditures, borrowing can expand the feasible investment set when internal cash is insufficient. Yet debt maturity may not always predict investment, suggesting that the amount, covenant structure, and cost of financing can matter more than maturity alone.

Dynamic adjustment studies also show that firms do not instantaneously move to target leverage. Adjustment costs, issuance timing, information asymmetry, and market risk create partial adjustment. Benkraiem et al. (2023) find that GCC firms exposed to higher stock-price crash risk adjust more slowly toward target leverage, especially when over-levered. International evidence supports the same mechanism: Im et al. (2020) show that uncertainty lowers target leverage by reducing expected tax benefits and increasing distress and agency costs. Benlemlih et al. (2024) further demonstrate that policy uncertainty can restrict access to finance. For Saudi managers, target leverage should therefore be state-contingent: the appropriate range narrows when uncertainty, refinancing risk, or market opacity rises.

6.4 Islamic financing and Sukuk as strategic debt substitutes

Islamic financing materially expands the definition of debt strategy. Guizani (2020) and Guizani and Ajmi (2021) show that Saudi Islamic-compliant firms use Murabahah and Ijara as important responses to financing deficits, while Sukuk may be used later because issuance is comparatively complex and scale-dependent. Guermazi (2020) similarly finds that Sukuk issuance in GCC countries cannot be explained completely by conventional trade-off or pecking-order variables. Sukuk therefore should not be treated as a simple bond substitute in empirical models.

Market development influences whether Sukuk can become a practical optimization tool. Boukhatem (2022) finds that financial-risk conditions help explain Saudi Sukuk market development, emphasizing exchange-rate, foreign-debt, and debt-service stability. Boujlil et al.

(2020), studying sovereign issuance choices across Islamic economies, show that market development and credit quality influence the preference for Sukuk relative to conventional bonds. Although sovereign and corporate issuers differ, the transferable lesson is that Sukuk issuance depends on institutional capacity, investor demand, transaction infrastructure, and issuer fundamentals.

Naifar et al. (2022) demonstrate that Sukuk prices co-move with global risk factors, oil prices, and pandemic conditions across time and frequencies. Corporate treasurers should therefore avoid assuming that Sharia-compliant instruments insulate firms from global repricing. Sukuk can diversify funding sources and broaden the investor base, but market timing, maturity concentration, and secondary-market liquidity remain important. An optimized Saudi financing mix may combine retained earnings, bank facilities, Murabahah or Ijara, Sukuk, and equity, with the proportions determined by project duration, asset eligibility, investor demand, and balance-sheet resilience.

6.5 Governance, ownership, disclosure, and the cost of debt

Ownership concentration is a defining feature of many Saudi corporations. It can reduce classic manager-shareholder agency problems when controlling owners monitor closely, but it can also create minority-shareholder concerns and influence financing preferences. Alshareef (2024) shows that family ownership moderates the relationship between board gender and capital structure in Saudi listed firms, indicating that board attributes do not operate independently of ownership structure. Bas et al. (2022) also find that family management changes debt choices in developing economies.

Cash holdings and disclosure further condition debt demand. Alghadi et al. (2021) link ownership structure to cash holdings in Saudi firms, which matters because internal liquidity can substitute for external borrowing and provide a buffer against refinancing risk. Stronger disclosure can lower information asymmetry and potentially reduce the cost of debt. Al Barrak et al. (2023) find that stronger sustainability practices are associated with lower borrowing costs among Saudi listed firms, with financial distress affecting the relationship. This is strategically

important: capital structure optimization is not only a treasury exercise but also an outcome of reporting quality, ESG credibility, and perceived default risk.

Fintech may strengthen this channel. Zhou and Li (2024) find that fintech development can accelerate capital structure adjustment by improving information transparency, easing financing constraints, and increasing competition among banks. Although their evidence is from China, the mechanisms are relevant to Saudi Arabia's expanding digital financial infrastructure. Better credit analytics, electronic issuance processes, and competitive lending platforms can reduce adjustment costs and allow firms to rebalance more quickly.

6.6Leverage, performance, investment, and financial discipline

A central managerial question is whether more debt improves or damages corporate outcomes. Saudi evidence is predominantly cautious. Ghardallou (2023) finds an adverse effect of leverage on Saudi listed-firm performance, with the magnitude differing by profitability and size. Khan and Qasem (2024) likewise report negative associations between multiple leverage measures and performance across GCC non-financial firms. Comparable emerging-market evidence from Das et al. (2022) shows that the performance effect of leverage is heterogeneous rather than constant across firms, while Ronoowah and Seetanah (2023) find capital structure interacts with governance, shaping performance.

These findings do not imply that firms should minimize debt. Alnori (2024) shows that leverage can support investment, and debt remains valuable when it finances positive-net-present-value projects, matches long-lived assets, or prevents excessive equity dilution. The problem is nonlinear: debt can be productive up to the point where interest, refinancing, covenant, and distress burdens dominate. Sarpong-type institutional reasoning appears in Nguyen et al. (2022), where governance quality changes leverage's role as a monitoring device. Managers should therefore assess marginal debt capacity rather than rely on average sector ratios.

Behavioral and uncertainty research reinforces this conditional view. Rocciolo and Brooks (2024) show that managerial overcaution can affect capital structure choices, while Im et al. (2020) demonstrate that uncertainty reduces optimal leverage. Corporate financing policy should consequently incorporate scenario analysis around cash-flow volatility, borrowing spreads,

refinancing windows, and project delays. Figure 1 presents an integrated optimization framework in which firm fundamentals and institutional conditions determine the feasible financing set, after which managers jointly optimize leverage, maturity, instrument type, and liquidity before evaluating outcomes and feeding new information back into target ranges.

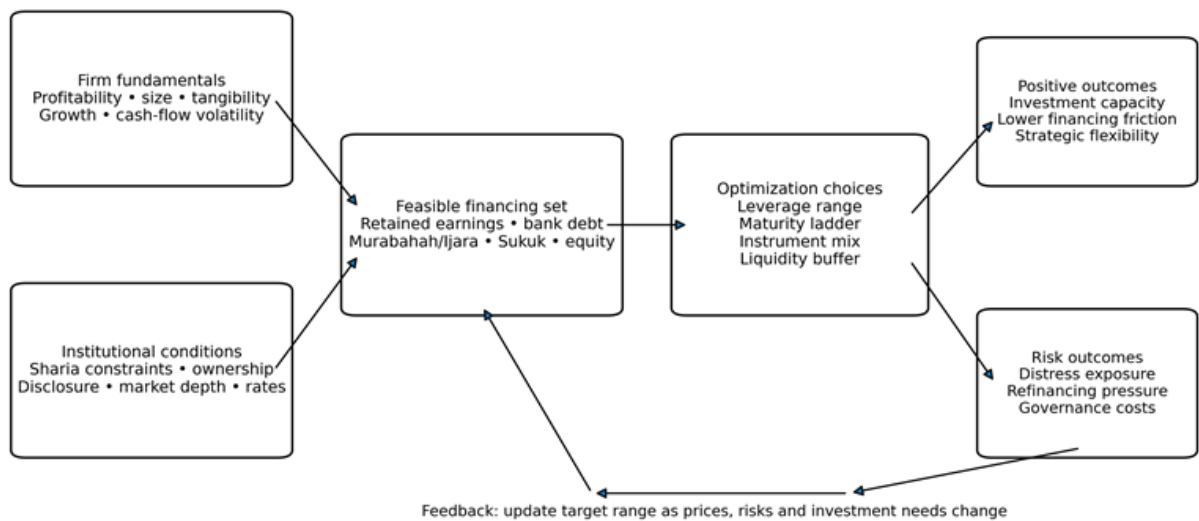


Figure 2. Structured integrative review workflow used for evidence identification, verification, quality assessment, and thematic synthesis

7. Discussion

The reviewed evidence supports four broad conclusions. First, Saudi capital structure decisions broadly align with global determinants but face stronger institutional constraints. Profitability, size, tangibility, growth, liquidity, and risk matter, yet their effects operate through a market characterized by Islamic financing, concentrated ownership, uneven information environments, and rapidly deepening capital markets. This explains why studies can support elements of both pecking-order and trade-off reasoning without fully validating either theory.

Second, “debt” is too aggregated a category for Saudi analysis. Conventional bank loans, Murabahah, Ijara, and Sukuk differ in contractual design, investor base, issuance cost, collateral or asset requirements, and market liquidity. Guizani and Ajmi (2021) and Guermazi (2020) show

that these instruments occupy different positions in financing hierarchies. Optimization therefore requires instrument-level analysis rather than total leverage ratios alone.

Third, optimal capital structure is dynamic. Firms adjust gradually because issuance costs, uncertainty, crash risk, and financing constraints prevent immediate rebalancing. Benkraiem et al. (2023) and Im et al. (2020) make clear that higher risk can both lower target leverage and slow adjustment. A firm may therefore be rationally away from its long-run target if market conditions make immediate refinancing expensive. This distinction between target and observed leverage is crucial for boards evaluating treasury performance.

Fourth, the performance consequences of leverage are heterogeneous. Negative average relationships in Ghardallou (2023) and Khan and Qasem (2024) suggest that excessive borrowing can impair profitability and market outcomes, but Alnori (2024) shows that leverage may support investment. Debt should thus be judged by use, maturity, pricing, and resilience rather than by level alone. Table 2 consolidates the thematic evidence and identifies the decision rule implied by each stream.

Figure 2 depicts the review logic from database searching and eligibility through quality assessment and thematic synthesis. Importantly, it does not report invented screening counts; it emphasizes reproducible search logic and transparent synthesis rather than an artificial appearance of exhaustiveness.

8. Research Gaps And Future Research

Several gaps remain. First, Saudi evidence still relies heavily on listed non-financial firms, while large private family groups, government-related entities, and mid-sized firms remain underexamined. Their access to bank finance, implicit support, collateral, and disclosure obligations differ materially. Future studies should compare ownership forms using matched samples and explicitly model related-party financing.

Second, instrument-level capital structure research is insufficient. Studies should distinguish conventional loans, revolving facilities, Murabahah, Ijara, project finance, conventional bonds, and different Sukuk structures rather than aggregating them into total debt. This would permit

tests of whether firms substitute across instruments when rates, Sharia screening, collateral requirements, or investor demand change.

Third, dynamic optimization should incorporate refinancing calendars and interest-rate exposure. Existing leverage studies often estimate target ratios but rarely model clustered maturities, covenant headroom, floating-rate exposure, or hedging. Research using transaction-level debt data could identify whether Saudi firms deliberately ladder maturities and whether Sukuk improves resilience during credit tightening.

Fourth, governance mechanisms need to be integrated with financing costs. Alshareef (2024), Al-Faryan (2021), and Al Barrak et al. (2023) indicate that ownership, boards, sustainability, and distress matter, but causal pathways remain unclear. Future work should examine whether disclosure quality and ESG performance reduce spreads because they lower information asymmetry, expected default losses, or both.

Fifth, digital finance deserves Saudi-specific analysis. Zhou and Li (2024) suggest that fintech can accelerate capital structure adjustment, yet comparable evidence from Saudi Arabia is scarce. The expansion of digital banking, data-rich credit assessment, and electronic debt-market infrastructure creates a natural setting for studying whether technology lowers financing frictions for smaller or geographically distant firms.

Finally, future studies should examine regime changes. Oil-price shocks, monetary tightening, tax and Zakat reforms, bankruptcy-law development, and capital-market reforms can alter both target leverage and adjustment speed. Designs using regulatory events, difference-in-differences, and granular issuance data would strengthen causal inference beyond conventional static panel regressions.

9. Practical, Managerial, and Policy Implications

For corporate managers, the principal implication is to replace a single leverage target with a policy range tied to cash-flow resilience and strategic investment. Treasury teams should stress-test interest coverage, liquidity, covenant headroom, and refinancing concentration under adverse scenarios before adding debt. Maturity should be aligned with asset life, while short-term

borrowing should be reserved for working-capital needs or situations where refinancing risk is demonstrably manageable.

Select financing instruments for economic function rather than label. Sukuk and Islamic financing can broaden access and meet investor preferences, but they still carry pricing, documentation, liquidity, and maturity risks. Firms should compare all-in cost, flexibility, collateral implications, execution time, and investor diversification across conventional and Sharia-compliant alternatives. Boards should also monitor the use of proceeds: debt that finances resilient, cash-generating assets differs fundamentally from debt used to support distributions or cover persistent operating deficits.

Treat governance and disclosure as financing assets. Strong boards, transparent reporting, credible sustainability practices, and disciplined liquidity management can lower perceived risk and expand funding options. The evidence on ESG and debt cost in Saudi firms suggests that nonfinancial reporting can have direct treasury consequences (Al Barrak et al., 2023). Managers should therefore integrate financing strategy with investor relations and risk reporting.

For policymakers, continued development of liquid corporate bond and Sukuk markets is central. Greater market depth can reduce dependence on banks, improve price discovery, and create longer-term financing alternatives for Vision 2030 investment. Standardized disclosure, efficient issuance procedures, reliable credit assessment, and deeper secondary-market liquidity can reduce financing frictions. Policy should also support access beyond major cities, because the geographic financing differences documented by Jerbeen and Alnori (2020) suggest that information and network advantages remain economically relevant.

10.Limitations

This review has four limitations. As an integrative review rather than a statistical meta-analysis, it does not estimate pooled effect sizes. The underlying studies use heterogeneous measures of book leverage, market leverage, debt maturity, performance, and governance, limiting direct coefficient comparison. Saudi-specific evidence is concentrated in listed firms and therefore may not generalize to private groups or smaller enterprises. Finally, the review prioritizes recent

English-language peer-reviewed literature and verified DOI records; relevant Arabic-language or practitioner evidence may therefore be underrepresented.

11. Conclusion

Debt financing strategies in Saudi Arabian corporations cannot be optimized through a universal leverage ratio. The evidence instead supports a dynamic, multidimensional approach in which leverage, maturity, financing instrument, liquidity, governance, and market timing are jointly managed. Profitability generally reduces demand for debt, while size, tangibility, investment needs, access to markets, and ownership conditions shape borrowing capacity. Sharia compliance changes the feasible financing set and the sequence in which firms access external funds, making Murabahah, Ijara, Sukuk, and conventional debt economically non-equivalent. Debt maturity and the speed of adjustment matter because refinancing risk and uncertainty can keep firms away from long-run targets even when managers recognize the desired direction of change.

The strongest synthesis is therefore conditional rather than doctrinal. Pecking-order logic explains profitable firms' preference for internal funds; trade-off reasoning explains the balance between financing benefits and distress; agency and governance perspectives explain monitoring incentives; and institution-based analysis explains why these relationships differ across Saudi firms. Evidence that leverage can reduce performance yet support investment confirms that debt is neither inherently beneficial nor harmful. Its value depends on what it finances, how it is structured, and whether the firm can absorb shocks without sacrificing strategic flexibility.

For Saudi corporations, capital structure optimization should be implemented as an ongoing governance process. Boards and treasury teams should define leverage corridors, ladder maturities, diversify instruments, preserve liquidity buffers, and revise targets when uncertainty, borrowing costs, or project risks change. For policymakers, deeper corporate debt and Sukuk markets, stronger disclosure, improved price discovery, and broader access to finance can reduce adjustment costs and support efficient capital allocation. Future research should move from aggregate leverage ratios to transaction-level evidence that explains how Saudi firms select instruments, maturities, covenants, and refinancing pathways across changing economic regimes.

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445 **Table 2. Critical synthesis of evidence and decision implications.**

Theme	Evidence synthesis	Decision implication
Leverage determinants	Profitability usually lowers leverage; size/tangibility often expand capacity; growth and liquidity are conditional.	Use target ranges differentiated by sector, asset structure and cash-flow resilience.
Debt maturity and adjustment	Maturity reflects firm and macro factors; uncertainty and crash risk slow adjustment toward targets.	Ladder maturities and treat temporary deviations from target as potentially rational when refinancing conditions are poor.
Islamic instruments and Sukuk	Islamic instruments occupy different positions in financing hierarchies; Sukuk depends on market depth and issuer quality.	Compare all-in economics and execution constraints at instrument level rather than treating all debt as homogeneous.
Governance and financing cost	Ownership, boards, disclosure and sustainability affect financing choices and borrowing cost.	Integrate treasury strategy with governance, ESG reporting and investor communication.
Performance and investment	Average leverage-performance effects are often negative, yet debt can support investment when deployed productively.	Evaluate marginal debt by use of proceeds, cash-flow coverage, covenant headroom and downside scenarios.

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