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Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)Platform & Workflow by: [Open Journal Systems](#)**ESG Disclosure and Capital Structure of Non-Financial Firms in Pakistan: A Conceptual Framework****Amir Zeb**

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Email: abdulmalikbkucianwork@gmail.com**Abstract**

This paper provides a conceptual framework between environmental, social and governmental (ESG) disclosure and firm capital structure decisions. The paper is built upon trade-off theory, pecking order theory, agency theory, stakeholder theory, legitimacy theory and signaling theory, suggesting that ESG disclosure has two main effects on leverage: firstly, it reduces information asymmetry and decreases the cost of debt, and secondly, it increases the legitimacy and trust of the stakeholders and broadens access to debt and equity. Firm size, profitability, growth opportunities, asset tangibility and industry regulatory intensity are hypothesized to moderate the relationship. Five testable propositions are put forward, which are substantiated with the latest empirical evidence from both developed and emerging markets including Pakistan, and implications for firms, regulators and empirical research are given.

Key Words: Capital structure; emerging markets; ESG disclosure; legitimacy theory; leverage; signaling theory; stakeholder theory

1. Introduction

Since Modigliani and Miller (1958) introduced the capital structure irrelevance proposition, it is one of the most widely studied fields in corporate finance. Subsequent theory has provided some answers to the financing behaviour observed, such as trade-off theory, pecking order theory (Myers, 1984; Myers and Majluf, 1984), and agency theory (Jensen and Meckling, 1976), but no single theory is able to answer fully the question of financing behaviour. Rajan and Zingales (1995) found that the relationship of the leverage ratio with firm-level characteristics like size, profitability, tangibility, and growth is fairly similar across the major industrial countries, but also observed that the theoretical underpinnings of these correlations are only partially understood.

ESG disclosure is also shifting from a side business to a mainstream expectation from capital markets, as the regulators, institutional investors, or lenders increasingly incorporate ESG risk into their capital allocation decisions (Tawfiq *et al.*, 2024). In Pakistan, the Securities and Exchange Commission of Pakistan (SECP) in collaboration with Pakistan Stock Exchange (PSX) and the Pakistan Institute of Corporate Governance (PICG)

has released voluntary ESG Disclosure Guidelines for listed companies, which is part of the broader regional trend of standardised and comparable ESG reporting (KPMG Taseer Hadi & Co., 2024).

However, the linkage between what companies report on their ESG performance and the capital structure of the company is underdeveloped, even now that most of these disclosures are mandatory, and capital markets are not as well-developed, especially in emerging economies where disclosure is often voluntary, and lending depends more on personal relationships than publicly reported information. This paper tackles that issue by producing a conceptual framework which makes the disclosure of environmental, social and governance (ESG) information an antecedent of capital structure decisions and passes through two theoretically distinct channels, with a group of variables at the firm and industry level as a set of moderating variables. The framework is designed to serve as a building block for future empirical research, such as the studies on Pakistan focused corporate finance research that are predominantly conducted with panel data with fixed-effects, random-effects, or GMM estimation.

2. Conceptual Definitions

2.1 Capital Structure

The specific mix of debt and equity that a company uses to finance its assets and activities is called its capital structure. Commonly used leverage ratios include debt-to-equity, debt-to-assets, and long-term debt-to-capital ratios. Capital structure decisions have direct implications for the cost of capital, risk of the financial system, and value of the firm, and depend on firm characteristics like size, profitability, growth opportunities and asset structure, as well as institutional and regulatory characteristics of the environment in which the firm operates (Rajan & Zingales, 1995).

2.2 ESG Disclosure

ESG disclosure is the quantity and depth of information a company provides on its environmental efforts (such as emissions, resource utilization, etc.), social efforts (such as labour standards, community relations, product responsibility, etc.) and governance efforts (such as board composition, executive compensation, shareholder rights, etc.). Disclosure can occur voluntarily, in annual or sustainability reports, or through a growing regulatory push, particularly in stock exchanges, for such disclosures. ESG disclosure is usually translated into a composite score based on content analysis of annual reports or from a third party ESG rating provider (Tawfiq *et al.*, 2024).

The scope and boundary conditions are described. The scope and boundary conditions are detailed.

This paper constructs a framework that is limited in three ways. Secondly it is designed for the listed non-financial firms—the type of firm for which leverage data and ESG disclosure are most clearly observable and comparable—as these are the firms for which the framework is most relevant, even if it would need to be separately adapted for financial-sector firms like banks, in which leverage is as much a regulatory outcome as a financing choice. Second, the framework's premise is that ESG disclosure contains some information that goes beyond what is already disclosed in financial statements — something that is more defensible in markets where ESG disclosure is credible and at least partially externally verified than in contexts where disclosure is symbolic or unaudited. Third, the framework is not predictive at the firm level: it states possible mechanisms and moderating factors, but the prevailing direction of the ESG disclosure–leverage relationship is an empirical matter, and the mechanisms are not mutually exclusive but rather depend on the prevalence of each channel in a specific empirical context, which is an empirical question as well.

3. Development of capital structure thought

The basic theory of capital structure is presented by Modigliani and Miller (1958), who proved that, given a set of restrictive assumptions (no taxes, no bankruptcy costs, and frictionless capital markets), the value of a firm is the same regardless of how it is financed. When these assumptions are no longer imposed, the issue of financing comes into play and two major alternatives have emerged in the literature since then. The static trade-off school assumes that leverage is a consequence of a company trying to balance the tax shield advantage of borrowing against the potential financial distress costs and that companies reach a target debt ratio over time. Another view, that of the pecking order school which was formalized by Myers (1984) and Myers and Majluf (1984), on the contrary, sees leverage rather as a residual effect from an information asymmetry-based financing hierarchy: firms use up their internal capital first, then borrow from banks, and only in a last resort fund themselves through external equity.

Empirically, Rajan and Zingales (1995) applied their theories to test their predictions on the cross-section of the G-7 economies — and found variables like firm size, tangibility, profitability and market-to-book ratio correlated with leverage in broadly similar ways across countries, though they were not able to decisively identify the theoretical mechanism that generates these correlations from the data alone. The unresolved debate is important for the current paper because it allows for the possibility that ESG disclosure could lead to either of two outcomes: a) a shift to a different optimal debt ratio, a change that a firm would choose, based on its target-seeking behavior (trade-off logic); or b) a reduction in the informational friction that results in a firm being pushed to external financing in the first place (pecking order logic). The conceptual framework outlined in this paper does not try to resolve this underlying debate; instead, this paper views the disclosure of ESG as a variable that can be measured as an output from both logics, the net impact of which on leverage will depend on the empirical context.

Lately, these classical theories have been expanded to include the non-financial aspects of firm action. Agency theory (Jensen & Meckling, 1976) has been adapted to consider the impact of governance quality, a key ESG component, on agency costs of debt, and stakeholder theory (Freeman, 1984) and legitimacy theory (Suchman, 1995) have been employed to explain the voluntary disclosure of non-financial information that is not mandated by regulation. Bae *et al.* (2011) was one of the first empirical studies that clearly established a link between a stakeholder-relevant firm attribute (labour treatment) and leverage and interpreted this relationship as being in line with a stakeholder-oriented theory of capital structure where firms that perform well on non-financial measures do not need to discipline their debtors as tightly. This discovery supports the current paper's hypothesis that the relationship between leverage and ESG disclosure should be similar, as this disclosure is a more comprehensive and systematic form of non-financial information than each of its individual components.

4. Theoretical Foundations

The proposed solution is based on six theories that have been found to explain why ESG disclosure could influence the capital structure.

Trade-off Theory: Firms weigh the tax benefits of debt against the financial distress and bankruptcy costs (Modigliani & Miller, 1958); Disclosure of ESG information may influence this trade-off, affecting a lender's perception of default risk.

Pecking Order Theory: Myers (1984) and Myers & Majluf (1984) suggest that to minimize information asymmetry between the firm and the outside financier, firms would prefer to fund their projects from

internal sources first and then through debt, only resorting to equity financing as a last option. This is called Pecking Order Theory, and ESG disclosure can push a firm further down the hierarchy.

Agency Theory: Jensen & Meckling (1976), financing decisions are affected by agency issues between managers, shareholders and debtholders and agency costs of debt can be reduced by good governance disclosure, the 'G' of ESG, which leads to better willingness of lender to lend on favourable terms.

Stakeholder Theory: firms have responsibilities to a wider group of stakeholders – communities, employees, regulators – and the disclosure of ESG signifies that commitment; (Freeman, 1984) ESG disclosure may help improve the relationship with capital providers, who may take stakeholder considerations into account. Bae, Kang and Wang (2011) offer direct empirical evidence for this channel as they show that the firms that have the highest employee treatment have significantly lower leverage ratios than those with lower treatment, in line with the stakeholder theory of capital structure.

Legitimacy Theory: Companies report ESG information, in part, because they want to keep their social license and social licence to operate within the norms and expectations of society (Suchman, 1995), which can lead to greater access to capital markets, and better financing conditions.

The signaling theory: This Theory suggests that, in markets where information is imperfect, financing decisions and voluntary disclosure are costly and credible signals of firm quality (Ross, 1977), and thus, in the context of ESG, disclosure acts as a signal to reduce the cost of debt and equity funding of the firm.

Table 1 presents the role of each theory in the framework and the mechanism of the ESG disclosure–capital structure relationship suggested by that theory.

Theory	Core Argument	Implied Mechanism for ESG–Capital Structure Link
Trade-off Theory	Optimal leverage balances the tax shield of debt against expected financial distress costs (Modigliani & Miller, 1958).	ESG disclosure may lower perceived distress risk, shifting a firm's target debt ratio upward.
Pecking Order Theory	Firms finance internally first, then with debt, then with equity, to minimise information-asymmetry costs (Myers, 1984; Myers & Majluf, 1984).	ESG disclosure reduces information asymmetry, potentially moving firms up or down the financing hierarchy.
Agency Theory	Financing choices reflect efforts to control conflicts between managers, shareholders and debtholders (Jensen & Meckling, 1976).	Governance disclosure lowers agency costs of debt, potentially easing lender terms.
Stakeholder Theory	Firms are accountable to a broad set of stakeholders beyond shareholders (Freeman, 1984).	Strong ESG disclosure signals stakeholder accountability,

Theory	Core Argument	Implied Mechanism for ESG–Capital Structure Link
		associated with lower leverage (Bae <i>et al.</i> , 2011).
Legitimacy Theory	Firms disclose to maintain their social license to operate (Suchman, 1995).	Legitimacy gained through disclosure widens access to both debt and equity capital.
Signaling Theory	Costly, credible actions distinguish higher-quality firms from lower-quality ones under information asymmetry (Ross, 1977).	ESG disclosure functions as a credible signal, lowering the cost of external capital (Moussa & Elmarzouky, 2024).

Table 1. Summary of theoretical foundations underlying the proposed framework

5. Linking ESG Disclosure to Capital Structure

Two competing, though not mutually exclusive, conceptual pathways connect ESG disclosure to capital structure.

5.1 The Information Channel

ESG disclosure is a way to lower the information gap between a firm and its capital sources, so it fits in with pecking order and signaling logic. Lenders and investors are exposed to reduced uncertainty regarding environmental liabilities of a company, governance and social risk exposure resulting in reduced risk premium demands. Tawfiq *et al.* (2024) utilize a system-GMM approach for non-financial Fortune 500 companies between 2007 and 2022 and conclude that the firms with greater ESG disclosure have lower leverage ratios and a lower weighted average cost of capital (WACC), and that ESG disclosure has a stronger effect on leverage ratio than on the WACC. Likewise, Moussa and Elmarzouky (2024) find that UK companies that disclose broader ESG information have lower costs of capital, further supporting the information-channel argument that where there is credible ESG reporting, the capital markets will price it attractively.

5.2 The Legitimacy Channel

Strong ESG disclosure can also boost a firm's reputation and social standing, potentially leading to increased access to capital, including equity markets, green bonds and concessional lending facilities linked to sustainability performance, under stakeholder and legitimacy logic. The overall effect of this channel on leverage is thus theoretically unclear, as companies with good legitimacy may also be able to secure easier equity financing, and may even wish to decrease their debt financing. This is in line with the results of Tawfiq *et al.* (2024), which found that increased ESG disclosure was negatively correlated with the observed leverage, but not with the increase in debt taken on; this result indicates that, in some settings, the legitimacy channel outweighs the information channel, as firms shift to equity in lieu of further debt borrowing due to the enhanced ESG signals. This is an ambiguity of its own worth, and is mirrored in the propositions of Section 7.

6. Empirical Context: Global and Pakistan-Specific Evidence

There is still very limited evidence on the link between ESG disclosure and the capital structure in developed markets. Bae *et al.* (2011) offer early evidence in the U.S. that employee-friendly companies have less debt

that is socially related. More recent studies by Tawfiq *et al.* (2024) and Moussa and Elmarzouky (2024) have also found that ESG disclosure–leverage and ESG disclosure–cost-of-capital relationships are negative, albeit at a broader level, for large, developed-market firms with mature ESG reporting frameworks.

There is relatively little evidence from emerging markets, but it is gaining in momentum with Pakistan. However, when Gillani and Khan (2024) analyse 90 non-financial companies listed on the Pakistan Stock Exchange, they find that compliance with the ESG reporting is less than 50% for most of the indicators where most companies are not doing well in Environmental or Social disclosure; while the governance disclosure is in general stronger. They also find that environmental disclosure is correlated with better ROA and Tobin's Q, and that there is a mediation effect between ESG disclosure and financial performance: higher levels of ESG disclosure lead to better investment ratings, which in turn lead to better financial performance. This is an important mediating role of investment rating for the current framework because it is conceivable that credit and investment ratings are a channel that ESG disclosure could influence the cost of debt and consequently the capital structure of the firm.

The SECP's voluntary ESG Disclosure Guidelines, which were developed in collaboration with the PSX and the Pakistan Institute of Corporate Governance and are aligned with the IFRS S1 and S2 sustainability disclosure standards, represent an early, but structurally important, step towards standardisation of ESG reporting in Pakistan (KPMG Taseer Hadi & Co., 2024). However, as illustrated by Gillani and Khan (2024), compliance has yet not been assured on all the ESG dimensions in developed markets; thus, the relationship between disclosure and capital structure may not be as strong or in the same direction as was illustrated in developed markets yet in Pakistan, rendering the need of empirical testing of the framework proposed here in context.

7. Other variables of relevance (moderating)

It is not likely that the strength of the relationship between disclosure and capital structure will be consistent for all firms with ESG disclosures. The frame is based on the following conceptually important moderating variables.

Firm Size: ESG disclosure is more likely to be reported by larger firms and larger firms have larger debt capacity, which could make the impact of ESG disclosure on debt capacity more pronounced (Rajan & Zingales, 1995).

Profitability: In line with pecking order theory, profitable firms could still choose to not borrow even though the cost of debt is reduced due to ESG disclosure, reducing the disclosure–leverage link (Myers, 1984).

Growth Opportunities: companies with positive growth potential might find that equity financing is the better way to go because they do not have the debt overhang issue, even if they disclose good ESG data to lenders.

Asset Tangibility: The structural advantage of firms with more tangible, collateralisable assets to accommodate positive perceptions by lenders on their ESG status, which then translate to higher debt financing (Rajan & Zingales, 1995).

Industry Regulation: Environmental and social disclosure are likely to be more strongly related to financing than governance disclosure, as ESG risk is priced directly in these industries by their lenders and regulators (Tawfiq *et al.*, 2024), supporting the industry analysis by which firms in environmentally sensitive, heavily regulated industries (e.g., energy, cement, textiles) are likely to have a higher level of relation between ESG disclosure and capital structure.

Country-level institutional context is also relevant as in a developing market like Pakistan, where ESG disclosure is still in the process of becoming more standardised and regulated by SECP and PSX guidelines,

while the level of disclosure of governance is outstripping that of environmental and social disclosure (Gillani & Khan, 2024), the nature of these relationships may differ from those found in more developed markets like the United States and United Kingdom.

8. Proposed Conceptual Framework

The framework is summarized in Figure 1, which suggests that the information and legitimacy channels will both influence capital structure, and that the effect of ESG disclosure is moderated by the firm- and industry-level factors.

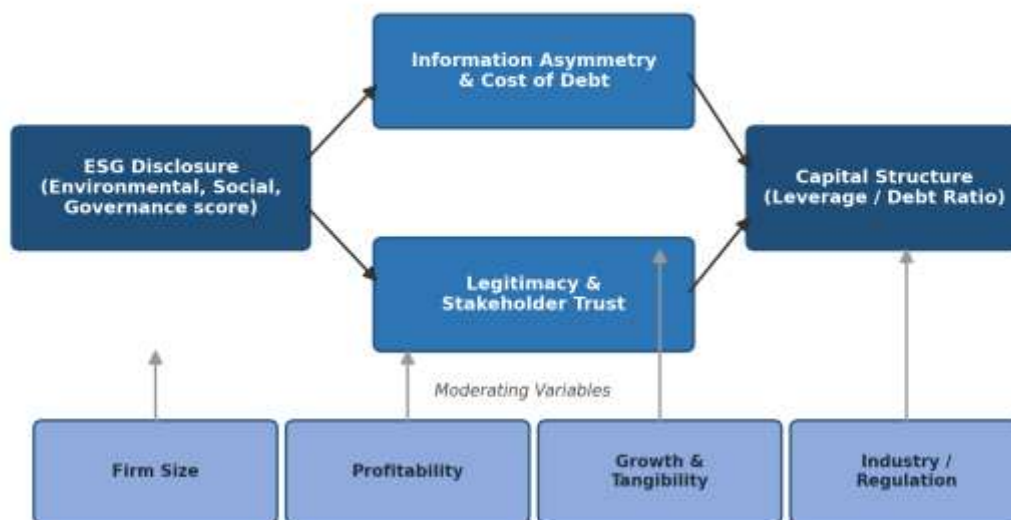


Figure 1. Conceptual framework linking ESG disclosure and capital structure

9. Propositions

Linking to the previous,

P1: The ESG disclosure has a negative relationship with the cost of debt of firms, mediated by the decrease of information asymmetry between the firm and the lender, as suggested by Moussa & Elmarzouky (2024).

P2: ESG disclosure positively correlates with bank financing access in emerging markets, with the connection being stronger as the ESG disclosure practice becomes more developed (Gillani & Khan, 2024).

P3: The findings of the moderating effect of firm size in the ESG disclosure-leverage relationship indicate that bigger and more transparent firms have higher observed leverage than their less transparent counterparts.

P4: The ESG disclosure-leverage relationship is negatively moderated by profitability. This would suggest that highly profitable firms with high ESG disclosure would be more inclined to use debt financing than to avail of internal financing, which is consistent with pecking order behaviour (Myers, 1984).

P5: The relationship between the ESG disclosure and capital structure in the firms is stronger in industries with higher environmental sensitivity or environmental regulation compared with industries with lower environmental sensitivity and regulation (Tawfiq *et al.*, 2024).

10. Implications

10.1 Theoretical Implications

The framework brings together signaling and legitimacy theory to the capital structure domain and considers disclosure of ESG as a separate signal to those traditionally considered in accounting disclosure. In addition, it underscores the need to account for the tension between the predictions of pecking order and legitimacy-based mechanisms; as observed in this study, the predictions of the two mechanisms may be conflicting as Tawfiq *et al.* (2024) find a negative relationship between ESG disclosure and leverage, despite observing a lower cost of debt.

10.2 Practical Implications

The framework argues that for corporate managers, the investment in ESG disclosure is not simply a compliance or reputation issue, but could be a plausible factor that affects the cost and availability of financing. A conceptual argument for the need to further strengthen and standardise the disclosure requirements regarding ESG can be drawn from the findings of Gillani and Khan (2024) that environmental and social disclosures are lagging behind governance disclosures. The framework offers good theoretical support for banks and lenders to include ESG disclosure quality in credit risk assessments, rather than doing so to appease outside pressure to be seen as sustainable.

10.3 Implications for Investors and Lenders

The framework suggests that not all ESG data is ethically motivated, but that the quality of disclosure is a legitimate addition to the variables considered when valuating equity and assessing credit risk, not just an ethical filter. While the medium-term effect of investment rating is found to be between ESG disclosure and financial performance in Pakistan as shown by Gillani and Khan (2024), this could provide a direct pathway to formally integrating the quality of ESG disclosure into the rating process of local credit rating agencies, thereby fast-tracking the information channel proposed in Section 5.1 and providing better-priced financing to firms with good ESG disclosure.

11. Suggested Operationalization for Future Empirical Testing

Future empirical testing is suggested under this section.

At a conceptual level it is helpful to define, how each construct could be operationalized to facilitate subsequent empirical research that is guided by the framework. Following the methodology of the Rajan and Zingales (1995) and Tawfiq *et al.* (2024), the dependent variable namely, capital structure is measured in terms of debt to equity ratio, debt to total assets ratio (leverage), and long term debt to total capital ratio. Measuring ESG disclosure can be done either by using a composite disclosure index generated by manually or automatically processing the content of the annual reports and sustainability reports, as done by Gillani and Khan (2024) for PSX listed companies; or by using third-party ESG scores, if available, as done by Tawfiq *et al.* (2024), which measure the disclosure separately in three dimensions — environment, social and governance — to test for the differential financing effects of the three that are suggested.

The moderating variables found in Section 7 — firm size, profitability, growth opportunities, asset tangibility and industry regulatory intensity — relate to the standard firm-level controls used in the capital structure literature: firm size is usually represented by the natural log of total assets or natural log of sales; profitability is represented by ROA; growth opportunities are represented by the market-to-book ratio or by sales growth; asset tangibility is represented by the ratio of fixed assets to total assets; and industry regulatory intensity is represented by sector classification or by a regulatory exposure index. If ESG disclosure and leverage are jointly determined (as would be the case if firms with lower leverage and stronger balance

sheets were more likely to be able to bear the costs of comprehensive ESG reporting, which would imply that disclosure could drive up leverage as well), then system-GMM estimation, as used by Tawfiq *et al.* (2024), might be appropriate. Fixed-effects and random-effects estimators can control for unobserved firm heterogeneity if panel data suitable for both years and firms are available.

To test the framework in a Pakistan-specific context, the non-financial firms listed on the Pakistan Stock Exchange would be an ideal sample, but with an explicit inclusion of leverage as the dependent variable instead of firm performance as done by Gillani and Khan (2024). Based on the findings of Gillani and Khan (2024) that governance disclosure is systematically stronger than environmental or social disclosure among Pakistani companies, an empirical test of the framework in Pakistan should consider the three elements of ESG disclosure separately rather than a composite score, because of the possibility that the three elements of the ESG disclosure could offset each other (e.g. strong governance disclosure may reduce the cost of debt, while weak environmental disclosure could increase it in environmentally exposed companies).

12. Conclusion and Future Research

This paper has suggested a conceptual association between ESG disclosure, capital structure and the information and legitimacy channels, with a moderating effect of firm size, profitability, growth opportunities, asset tangibility and industry regulation. The framework is grounded in the existing literature on capital structure theory (Modigliani & Miller, 1958; Myers, 1984; Jensen & Meckling, 1976; Rajan & Zingales, 1995) and recent empirical work that focuses specifically on ESG disclosure (Bae *et al.*, 2011; Tawfiq *et al.*, 2024; Moussa & Elmarzouky, 2024; Gillani & Khan, 2024), and is purposively designed to be testable in the empirical literature. Panel data from listed firms can be used to operationalise each proposition, as can be done with the disclosure scores on ESG data, which are derived from content analysis and/or from ESG rating providers, and the leverage ratios that are used to measure capital structure.

Fixed-effects, random-effects and system-GMM estimators are appropriate to estimate these relationships adjusting for firm-specific heterogeneity and endogenous ESG disclosure and leverage choices. Future research should also investigate if the framework is transferable across different sectors, and if the SECP's ESG Disclosure Guidelines and PSX's ongoing effort on ESG reporting have had any meaningful impact on the financing behaviour of listed Pakistani firms as they disclose environmental and social information compared to governance information.

References

- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*, 48(3), 261–297.
- 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. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach. *The Bell Journal of Economics*, 8(1), 23–40. <https://doi.org/10.2307/3003485>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 575–592. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421–1460. <https://doi.org/10.1111/j.1540-6261.1995.tb05184.x>
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571–610. <https://doi.org/10.5465/amr.1995.9508080331>
- Bae, K.-H., Kang, J.-K., & Wang, J. (2011). Employee treatment and firm leverage: A test of the stakeholder theory of capital structure. *Journal of Financial Economics*, 100(1), 130–153. <https://doi.org/10.1016/j.jfineco.2010.10.019>
- Gillani, S. U. A., & Khan, A. (2024). Environmental social and governance impetus and firm performance: Assessing the role of sustainability on corporate success. *Journal of Policy Research*, 10(3), 434–446.
- KPMG Taseer Hadi & Co. (2024). *Demystifying ESG disclosures: SECP guidelines on ESG disclosure*. KPMG in Pakistan.
- Moussa, A. S., & Elmarzouky, M. (2024). Beyond compliance: How ESG reporting influences the cost of capital in UK firms. *Journal of Risk and Financial Management*, 17(8), 326. <https://doi.org/10.3390/jrfm17080326>
- Tawfiq, T. T., Tawaha, H., Tahtamouni, A., & Almasria, N. A. (2024). The influence of environmental, social, and governance disclosure on capital structure: An investigation of leverage and WACC. *Journal of Risk and Financial Management*, 17(12), 570. <https://doi.org/10.3390/jrfm17120570>