European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

# Corporate Borrowings: A Conceptual Perspective

**Surya Narayan Behera[1] & Maheswar Sethi[2]**

[1]Research Scholar, P.G. Department of Commerce, Berhampur University, Berhampur, Ganjam, Odisha, Email: suryanb95@gmail.com, ORCID ID: 0009-0002-3017-8806
[2]Assistant Professor, P.G. Department of Commerce, Berhampur University, Berhampur, Ganjam, Odisha, Email: maheswar.sethi1989@gmail.com, ORCID ID: 0000-0002-7456-9203

## 1. Introduction:

In the dynamic landscape of global business and finance, corporate borrowings play a crucial role in addressing firms' capital needs, promoting economic growth, and facilitate expansion (Levine, 2003) amidst ever-changing global business and financial scene. Corporate borrowings are essential in forming the financial frameworks of companies in all sectors of the economy. The borrowings, as a source of capital, are considered by the corporate due to limitation of equity capital such as higher risk association from the investors' perspective and high cost of capital from the company perspective. Borrowings include debt securities, loans, and other credit instruments. Corporations strategically decide whether to leverage borrowed capital in order to maximise their capital structure (Rocca et al., 2011), manage risk (Eunju & Jang SooCheong, 2005), and take advantage of growth prospects (Zhang & Wu, 2017). It is because of the fact that borrowings hold an ambivalent status of acceptance among the corporate. In one hand, borrowings bring benefits to a firm in the form of tax shield effect and less costly capital thereby enhancing shareholders value. On the contrary, it brings many costs to a firm like bankruptcy cost, financial distress etc. So, when making financial decisions, managers carefully examine the option of corporate borrowings as a critical source of funding.

The recent emphasis on environmental sustainability by the Govt. and corporate, has led emphasis on the raising capital through green bond by the corporate that contribute positively to the climate or environment. Further, the concept of ESG (Environmental, Social and Governance) performance of the corporate has now dragged the attention of the investor as a measure of good corporate citizenship and thereby enabling the corporate to raise less costly capital through borrowings.

In a time of economic uncertainties, technological advancements, and evolving paradigms in financial markets, it is critical to comprehend the corporate borrowings. Hence, this paper aims to give a thorough overview of corporate borrowings by exploring the various facets that characterise this important component of contemporary financial ecosystems.

Further, this paper navigates across the potential benefits and theories which affect corporate financing decisions. On this investigation of corporate borrowings, we aim to provide valuable insights for scholars, policy makers, and industries. The remainder of this paper deals with importance, theories, cost, benefits, and determinants of corporate borrowings and last section provides the conclusion.

## 2. Importance of Corporate Borrowings

Corporate borrowings form a crucial source of finance and plays a pivotal role in realizing the firms' objective of value maximization. The importance of the borrowings has been widely described in the corporate literature. The literatures explain borrowings as a major factor in optimising a firm's capital structure and maximise the shareholders' value. Strategic borrowing choices that balance the debt and equity enable effective use of available funds while lowering capital costs (Deangelo et al., 2006). Because of this flexibility, firms can invest in growth projects, manage cash flows, and meet short-term liquidity needs ensuring that the right mix of funding sources is in place to support their strategic goals. Further, O'Brien (2003) argued that borrowed capital empowers companies to strategically invest in technological advancements, and innovations which allow companies to promote sustainability and long-term feasibility. Similarly, Brush et al. (2009) opined that businesses can support their expansion plans, foster innovation, and keep a competitive advantage in their respective industries by obtaining external fund. Thus, corporate borrowings act as an opportunity for businesses looking to grow, enter new markets, or embark on capital-intensive initiatives. This financial path makes it possible for firms to grow sustainably, giving them the ability to take advantage of new possibilities and maintain their competitiveness in the dynamic marketplace.

Strategic corporate borrowing decisions are also associated with growth strategies that contribute to enhancing shareholder value (Martin & Sayrak, 2003). Businesses boost shareholders' confidence and wealth by using borrowed funds to raise returns on invested capital. A prudent use of borrowed capital boosts investor confidence and market perception in addition to increasing the returns for shareholders. Further, according to the empirical evidences (Auerbach, 1985; Lin et al., 2011; Majumdar & Senb, 2010), the tax benefit of debt financing is another important factor to encourage use of such debts. Debt interest payments are tax deductible, which helps businesses in paying less taxes. Due to the tax shield effect, debt financing is more cost-effective than equity financing thereby giving the businesses a tactical way of maximising their capital

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

structure and total cost of capital. Overall, a company's financial strategy, capital allocation, and growth trajectory are greatly influenced by its corporate borrowings which also have an effect on the company's performance, competitiveness and ability to create value in the marketplace.

## 3. Theories of Corporate Borrowings

There are several theories developed by the financial economist that describe the behavior of the corporate in raising capital from borrowings sources. These theories are explained as follows:

- **MM Theory**

Theory of Modigliani & Miller (1958a) is considered as the foundation for contemporary capital structure theory. MM opines that the firm's capital structure don't have any bearing on its overall value. Securities are transacted in a friction less and perfect capital market where there is no information asymmetry and all pertinent information is available to all. As a result, there is absence of transaction costs, bankruptcy costs or taxes. Under these assumptions of MM theory, it is demonstrated that there is no optimum debt-equity ratio and capital structure is not relevant for the shareholders value creation (Abeywardhana, 2017). Further, the crucial contribution of Rubinstein (2003) and Stiglitz (1969) to the MM approach is that increase in debt enhances the firm's risk which in turn increase the cost of equity. However, the firm's Overall Cost of Capital remain constant since the higher cost of equity balances the lower cost of debt.

- **Trade-off Theory**

Subsequent to MM theorem, the Trade-off Theory became a crucial addition to corporate finance literature, and in enhancing the comprehension of capital structure choices by the firms. While MM theory proved that, under ideal circumstances, capital structure don't influence firm's value in a perfect market. The Trade-off Theory offered a realistic point of view by considering the complexity of corporate financial decisions and defects in the market (Sethi & Swain, 2019a; Jahanzeb et al., 2013).

This theory emphasises the importance of balancing benefits and cost of debt financing. It highlights the tax benefits, financial distress and higher cost associated with increased leverage (Haugen & Senbet, 1978). As per this theory, businesses look for the best debt-to-equity ratio, taking tax advantages into account and avoid taking too much risk from high debt levels (Abeywardhana, 2017). The dynamic aspect of corporate finance decisions is highlighted by the recognition of the interplay of tax shields, bankruptcy costs, and agency conflicts (Fama & French, 2002; Graham, 2003; Haugen & Senbet, 1978). Thus, it is a useful framework that considers market imperfections and assists businesses in directing the capital structure decisions which makes the Trade-off Theory valuable. It integrates practical concerns with the knowledge of ideal capital structures and offered insights into the reasons behind why businesses retain a particular amount of debt.

- **Pecking Order Theory**

In corporate finance, this theory is notable for deviating from conventional theories of capital structure and providing a behavioral perspective that is consistent with actual observations of corporate financing practices (Frank et al., 2003). Unlike conventional theories like MM theory and Trade-off theory, this theory concentrates on understanding how companies actually finance their operations and prioritise different funding sources. This theory suggests that companies line up the funding sources based on the principle of information asymmetry (Harris & Raviv, 1991). It describes that businesses tend to rely on the internal capital first, then move to debts and lastly, issue equity which replicates a strategy to avoid assigning adverse information to investor that firm's stock is overvalued (Shyam-Sunder & Stewart, 1994). On the basis of earlier studies (Baskin, 1989; Sethi & Swain, 2019b; Fama & French, 2002; Frank et al., 2003; Hamilton & Fox, 1998; Holmes & Kent, 1991; Shyam-Sunder & Stewart, 1994), it is revealed that this theory is significant because it discards the idea of optimal capital structure. Rather, it is consistent with observed behaviors, identifying that firms often have limited access to perfect information about their own value and the market's perception. By recognizing the importance of internal funds and signaling effects, this theory suggests a more realistic understanding of how companies finance their operations, incorporating behavioral aspects into the capital structure decision.

- **Agency Theory**

Agency Theory provides a comprehensive framework to recognize and address conflicts of interest between different stakeholders within a firm. It is important because it illuminates the principal-agent relationship and the ways in which conflicts affect capital structure, decision-making, and corporate governance (Shapiro, 2005). This theory detects inherent conflicts arising from different goals and incentives between principals or shareholders, and agents or management. According to Eisenhardt (1989), agency theory has resolved two problems that are persistent in agency relationships. Firstly,

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

agency problem happens when the objective of the principal doesn't match with that of agent. Secondly, it is challenging and costly for the principal to verify the actions of the agent. Here, the problem is that the principal can't verify the appropriate behaviour of the agent and both have different attitude towards the risks, resulting in inefficiencies and increased agency costs.

Agency theory has a significant impact on how corporate governance procedures are designed and how stakeholders' interests are coordinated. To reduce agency issues, it promotes incentive systems and monitoring. This involves strategies like board supervision, shareholder activism, and executive compensation linked to performance measures, and to ensure management choices reflecting the interests of shareholders (Shapiro, 2005). Moreover, this theory recognises how agency costs affect a firm's financing decisions which in turn influences capital structure choices. Companies may choose to use debt financing, which reduces agency conflicts by monitoring managers and placing discipline on them.

- **Market Timing Theory**

The Market Timing Theory identifies the importance of time in a company's capital structure decisions, particularly on debt issuance. The study of Baker & Wurgler, (2002) found that on the basis of this theory, a company issue new equity share when their share price is overvalued and buy back shares when shares price is undervalued. It recognises that companies schedule their debt offers based on market conditions, aiming to capitalise the favorable opportunities or avoid adverse situations. Market timing theory acknowledges that businesses intentionally adjust the amount of debt they issue in response to changes in interest rates, market sentiment, and the state of the economy as a whole. The significance of the Market timing theory extends its implications for a firm's cost of capital which implies that businesses try to issue debt during times of favorable market conditions to optimise their capital structure and reduce borrowing costs by matching with advantageous market conditions (Graham et al., 2001). Overall, the value of the Market timing theory lies in realizing how much the state of the market influences a company's debt choice, which in turn affects its cost of capital and financial approach.

- **Information Signaling Theory**

Information Signaling Theory provides important insights into how businesses strategically use their financial decisions particularly the issue of debt to convey information about their underlying health and future prospects. The contribution of this theory is the explaining of how companies utilize their financial actions to signal the external stakeholders about confidential information influencing investor behaviour and market perceptions (Connelly et al., 2011). Accordingly, companies issue debts not only to raise capital but also to signal their confidence in future performance (Karasek & Bryant, 2012). Companies show their positive outlook on future cash flows and stability by freely choosing to issue debt. The time, volume, and kind of debt issued indicate the firm's financial stability and future growth possibilities.

The significance of the Information Signaling Theory is not limited to its influence on market movements and investor views. Investor confidence may be positively impacted by a successful debt offering, which may decrease information asymmetry and the cost of finance for the company (Mavlanova et al., 2012). Moreover, this theory directs businesses in their strategic financing choices by taking the market's potential interpretations into account. Companies can more effectively manage investor expectations, boost market confidence, and strategically position themselves within the financial landscape by understanding the signaling impacts of financial decisions (Taj, 2016). In general, the information signaling theory adds clarity to how market views are shaped, business finance plans are influenced, and financial activities work as signals.

## 4. Cost of Corporate Borrowings

The cost of corporate borrowings includes all the expenses and factors that companies consider when accessing external funds. This comprehensive assessment is essential in determining borrowing choices, financial plans, and overall capital structure management in businesses (Lin et al., 2011). Examination of the complexities of cost of corporate borrowings involves various components and each component adds to the comprehensive valuation of borrowing expenses. Such costs are explained as follows:

- **Interest Expenses:**

Interest payments indicate a significant portion of borrowing costs. The cost of borrowings is affected by the interest rate which is determined by monetary policy, creditworthiness, and market conditions (Berg et al., 2016). Companies must decide between fixed and variable rates while understanding how such variations impact cash flow and stability (Lin et al., 2011).

- **Credit Rating and Risk Premiums:**

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

Companies with lower credit ratings are subject to higher interest rates or risk premiums (Lin et al., 2010). Firms with high ratings may acquire more satisfactory loan terms such as lower interest rates compared to without credit ratings or with low credit ratings firms. (Strahan et al., 2005). Creditworthiness has a profound influence on pricing and access to financing sources.

- **Maturity:**

The tenure of the loans affect the expenses. Because longer-term loans require larger interest payments over time and they are typically more expensive (Choi et al., 2015). However, practitioners claim that the reason of choosing debt maturity is to reduce rollover risk which is the factor that affect overall borrowing costs (Lins et al., 2010). Further, while long-term borrowings frequently come with higher costs, they provide stability in interest payments and protect companies from short-term market fluctuations (Stohs & Mauer, 1996).

- **Exchange Rate Risks:**

Exchange rate fluctuations have a significant influence on repayment commitments and can affect a company's capacity to efficiently manage exchange rate risk (Eichengreen & Hausmann, 1999). Companies that borrow in foreign currencies have to deal with the difficulties of properly managing their currency exposures in addition to the possible hazards brought by currency volatility.

- **Opportunity Cost:**

In making financing decision, borrowing options are compared to other financial options. Companies evaluate the advantages and disadvantages of borrowing against using funds from within, issuing stock, or looking into other financing sources while taking opportunity costs into account (Jensen, 1986). There is a wide and consistent outcome that for growing companies the opportunity cost of debt is high because debt can confine a firm’s capacity to exercise future growth opportunities due to debt extension (Myers, 1977). The inflexibility arising from debt covenants could also limit a firm’s capacity to have optimal investment and exercise growth choices which in turn increase the cost of debt.

## 5. Benefits of Corporate Borrowings

Corporate value is optimised when the benefits of corporate borrowings are carefully balanced against the possible drawbacks like financial risk and responsibility (Leland, 1994). The benefits associated with corporate borrowings includes:

- **Tax Shields:**

Interest payments on debt are tax-deductible. It creates a tax shield that cuts the company's overall tax burden and makes debt financing more affordable than equity financing. Beyond reducing tax loads, interest payments encourage businesses to use leverage wisely (Salubi & Marcella, 2010). The study of Modigliani & Miller (1958) also demonstrates that how debt enables businesses to modify their capital structure in order to balance between financial risk and tax benefits.

- **Reduced Cost of Capital:**

Debt is often less expensive than equity, due to its lower cost of borrowing (Silaghi, 2018). Businesses can minimise their total cost of capital by using debt which boosts the profitability of their investment initiatives. Similarly, Graham et al., (2001) opined that because of tax benefits, debt is typically less expensive and can lower a company's total cost of funding.

- **Enhanced Flexibility in Capital Structure:**

Debt leverages a business's operations without reducing ownership. It allows companies to keep control on capital structure. According to the pecking order hypothesis, debt gives financial flexibility by enabling the firms to have cash in hand and internal finances for unexpected opportunities or strategic investments.

- **Investment Opportunities:**

Debt enables companies to take advantage of investment opportunities even when internal funds are insufficient. Firms can quickly take the advantage of strategic possibilities like technical advancements, expansions, and acquisitions by using debt instruments (Myers & Majluf, 1984). Further, firms can venture into new markets, diversify their sources of income, and take on large-scale projects by accessing external and additional capital (Silaghi, 2017). However, prudent evaluation and risk assessment are still essential to make sure that the advantages of using debt for expansion balance with the associated financial risks and obligations.

- **Discipline:**

Debt holders employ discipline on management. They have a stake to protect their investment which can make a parallel of interest between management and creditors (Ansong, 2021). Further, to ensure responsible management and financial discipline, creditors frequently have contractual agreements in place that establish certain operational and financial constraints. Thus, this position of interests between management and creditors promotes openness, responsibility, and responsible risk management, which eventually benefits creditors as well as shareholders and other stakeholders (Myers & Majiuf, 1981).

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

- **Enhanced Return on Equity (ROE):**

Indeed, the use of borrowed capital in projects that provide returns higher than the cost of debt amplify shareholder returns (Modigliani & Miller, 1959). An increase in ROE frequently has a favorable impact on the firm's performance, attract investors seeking higher returns and boost trust in management's capacity to create value.

## 6. Determinants of Corporate Borrowings

The corporate borrowings, which forms a vital component of firm's capital structure and helps the firm in enhancing shareholders value, is affected by multiplicity of factors. The factors as revealed by the earlier studies are discussed below:

- **Profitability:**

Profitability is an important determinant of corporate borrowings, influencing a company's access to credit and its terms of borrowings. Studies (Auerbach, 1985; Bhaduri, 2002) indicate that profitable companies are less risky on lenders view since they can generate steady profits, which improves their creditworthiness and makes it easier for them to access capital markets. Their strong financial position makes it possible to manage their debt more effectively, which improves borrowing conditions. Further, trade-off theory predicts the relation between profitability and borrowings is positive as high profit firm need better tax shelter and have more debt taking capacity.

- **Collateral Ability:**

Collateral ability affects lenders' perceptions of risk and loan terms which driving corporate borrowings. A company's capacity to obtain debt finance is improved when it has physical assets, such as real estate, machinery, or inventory, that can be used as collateral. According to Booth & Booth, (2006) and Hall, (2012), businesses with valuable collateral assets have easier access to credit since these assets reduce the risk for lenders by acting as a safety net in the event of default. Additionally, strong collateral assets provide better conditions on borrowings like lower interest rates and larger loan amounts as lenders perceive less risk when there are assets to back the loan.

- **Financial Distress:**

Companies with signs of financial distress, such as low liquidity, diminishing profitability, or high leverage often have difficulties in obtaining debt funding (Berlin et al., 1996; Bhaduri, 2002; John, 1993). On lenders point of view, these companies' are riskier and they impose higher interest rates and concerned about companies' ability to repay their debts (Opler & Titman, 1994).

- **Growth Opportunities:**

Majumdar, (2010) opined that companies which need to take advantage of growth opportunities are more likely to borrow and use debt as a tactical tool to finance their initiatives. Growth-oriented businesses are seen favorably by lenders who see their potential for higher future cash flows as a way to pay the debt. On the other hand, growing businesses are more likely to have more serious agency issues since they have greater investment flexibility in the future (Bhaduri, 2002). Further, as per Myers, (1977), growing firms can use short-term debt instead of long-term debt to avoid agency costs.

- **Firm Size:**

Large companies are generally less exposed to financial distress due to their greater diversification. Therefore, many studies (Ezeoha, 2008; Majumdar & Sen, 2010; Myers, 1977) conclude that a company's size affects its debt selection. Thus, it is anticipated that business size and leverage correlate positively. Further, size have a significant role in determining corporate borrowings if transaction costs related to the issue choice define the capital market (Krishnaswami et al., 1999).

- **Information Asymmetry:**

Due to information asymmetry, lenders might not be able to determine a potential borrower's creditworthiness with enough accuracy. This can lead to lenders charging higher interest rates or imposing stricter terms to compensate for the increased risk (Stiglitz & Weiss, 1981). Companies with better information access and higher openness are frequently seen as less risky borrowers. Firms that give lenders a thorough and timely information might gain better terms and conditions, cheaper interest rates, and easier access to finance.

- **Age:**

Younger firms frequently depend on internal fund or equity funding because of their short credit history, inexperienced track record, and increased perceived risk by lenders (Pfaffermayr et al., 2013). As firms mature and built a strong track record of operations, they have easier access to debt funding. On the other hand, according to Rocca et al., (2011), industrial policies in developing countries benefit startups and small enterprises by providing them with access to cheap capital, which lowers the cost of debt relative to equity.

## 7. Conclusion

Examining the corporate borrowings literature open up a complex world in which financial strategies balance with theoretical concepts and practical application. These borrowings become essential tools for organisational growth, innovation, and strategic direction (Drake & Fabozzi, 2010). Theories such as Trade-off theory, Pecking order theory, Agency theory, etc. are

European Economic Letters
ISSN 2323-5233
Vol 14, Issue 1 (2024)
https://doi.org/ 10.52783/eel.v14i1.1036
http://eelet.org.uk

some of the theoretical foundations that help businesses in managing the complex interplay between debt, equity, and signaling mechanisms. The paradox of costs and benefits such as interest charges, fees, financial hazards, and tax advantage that determines the net cost of borrowings appear throughout this complex picture. Businesses carefully consider these factors, distinguishing between short-term and long-term borrowings, and evaluate funding sources in light of potential regulatory and tax implications. In the complicated structure of the corporate world, borrowings become a symphony of balancing possibilities, risks, and long-term value creation. Companies use borrowings as a canvas to paint their dreams, illustrating routes to innovation, economic stimulation, and social impact. It is the evidence of how skillfully businesses handle complexity, and create financial structures that go beyond figures and create a story of sustained success and resiliency in a dynamic business environment. This journey represents a narrative and strategic foresight that goes beyond financial indicators.

**References:**

[1] Abeywardhana, D. K. Y. (2017). Capital Structure Theory: An Overview. *Accounting and Finance Research*, *6*(1), 133. https://doi.org/10.5430/afr.v6n1p133

[2] Ansong, G. (2021). Debt Management Challenges Facing Small Business Holders of Kaneshie Market, Accra-Ghana. *American Journal of Industrial and Business Management*, *11*(07), 785–803. https://doi.org/10.4236/ajibm.2021.117049

[3] Baker, M., & Wurgler, J. (2002). Market Timing and Capital Structure. In *Source: The Journal of Finance* (Vol. 57, Issue 1).

[4] Baskin, J. (1989). An Empirical Investigation of the Pecking Order Hypothesis. In *Source: Financial Management* (Vol. 18, Issue 1). https://www.jstor.org/stable/3665695

[5] Berg, T., Saunders, A., & Steffen, S. (2016). The Total Cost of Corporate Borrowing in the Loan Market: Don't Ignore the Fees. *Journal of Finance*, *71*(3), 1357–1392. https://doi.org/10.1111/jofi.12281

[6] Berlin, M., John, K., & Saunders, A. (1996). Bank Equity Stakes in Borrowing Firms and Financial Distress. In *Source: The Review of Financial Studies* (Vol. 9, Issue 3). https://www.jstor.org/stable/2962314

[7] Bhaduri, S. N. (2002). Determinants of Corporate Borrowing: Some Evidence from the Indian Corporate Structure. *Journal of Economics and Finance*, Vol. 9 (2).

[8] Atul Kathole , Dinesh Chaudhari "Securing the Adhoc Network Data Using Hybrid Malicious Node Detection Approach", Proceedings of the International Conference on Intelligent Vision and Computing (ICIVC 2021) pp 447–457 © 2022 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.

[9] Booth, J. R., & Booth, L. C. (2006). Loan Collateral Decisions and Corporate Borrowing Costs. In *Source: Journal of Money, Credit and Banking* (Vol. 38, Issue 1). https://about.jstor.org/terms

[10] Brush, C. G., Ceru, D. J., & Blackburn, R. (2009). Pathways to entrepreneurial growth: The influence of management, marketing, and money. *Business Horizons*, *52*(5), 481–491. https://doi.org/10.1016/j.bushor.2009.05.003

[11] Choi, J., Hackbarth, D., Zechner, J., Almeida, H., Duchin, R., Gorbenko, A., Flannery, M., He, Z., Hwang, C., Lyandres, E., Maug, E., Song, M.-K., Sundaresan, S., Titman, S., Wald, J., & Whited, T. (2015). *Beisheim School of Management*.

[12] Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. In *Journal of Management* (Vol. 37, Issue 1, pp. 39–67). https://doi.org/10.1177/0149206310388419

[13] Deangelo, H., Deangelo, L., Fama, E., Hirshleifer, D., Masulis, R., Ritter, J., Sensoy, B., Stulz, R., Sufi, A., &Westerfield, M. (2006). *Capital Structure, Payout Policy, and Financial Flexibility*.

[14] Drake, P. P., & Fabozzi, F. J. (2010). The basics of finance: An introduction to financial markets, business finance, and portfolio management (Vol. 192). John Wiley & Sons.

[15] Ebel Ezeoha, A. (2008). Firm size and corporate financial-leverage choice in a developing economy: Evidence from Nigeria. *Journal of Risk Finance*, *9*(4), 351–364. https://doi.org/10.1108/15265940810895016

[16] Atul B Kathole, Dr.Prasad S Halgaonkar, Ashvini Nikhade, " Machine Learning & its Classification Techniques, "International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9S3, July 2019.

[17] Eichengreen, B., & Hausmann, R. (1999). *NBER Working Paper Series. Exchange Rates And Financial Fragility Exchange Rates and Financial Fragility*. http://www.nber.org/papers/w7418

[18] Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. In *Source: The Academy of Management Review* (Vol. 14, Issue 1). https://www.jstor.org/stable/258191

[19] Eunju, Y., & Jang SooCheong. (2005). Journal of Hospitality Financial Management. *Journal of Hospitality Financial Management* (Vol. 13, Issue 1).

[20] Fama, E. F., & French, K. R. (2002). Testing Trade-Off and Pecking Order Predictions about Dividends and Debt. In *Source: The Review of Financial Studies* (Vol. 15, Issue 1). https://www.jstor.org/stable/2696797

[21] Frank, M. Z., Goyal, V. K., Bechmann, K., Chirinko, R., Dasgupta, S., Hadlock, C., Head, K., Maksimovic, V., Titman, S., & Wruck, K. (2003). Testing the pecking order theory of capital structure $. In *Journal of Financial Economics* (Vol. 67).

[22] Atul B Kathole, Dr.Dinesh N.Chaudhari, "Pros & Cons of Machine learning and Security Methods, "2019.http://gujaratresearchsociety.in/index.php/ JGRS, ISSN: 0374-8588, Volume 21 Issue 4

[23] Auerbach, A. J. (1985). *Real Determinants of Corporate Leverage*. University of Chicago Press.

[24] Graham, J. R. (2003). Taxes and Corporate Finance: A Review. In *Review of Financial Studies* (Vol. 16, Issue 4, pp. 1075–1129). Oxford University Press. https://doi.org/10.1093/rfs/hhg033

[25] Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. Journal of financial economics, 60(2-3), 187-243.

[26] Hall, T. W. (2012). The collateral channel: Evidence on leverage and asset tangibility. Journal of Corporate Finance, 18(3), 570-583.

[27] Hamilton, R. T., & Fox, M. A. (1998). The financing preferences of small firm owners. *International Journal of Entrepreneurial Behaviour & Research*, *4*(3), 239–248. https://doi.org/10.1108/13552559810235529

[28] Harris, M., & Raviv, A. (1991). The Theory of Capital Structure. In *Source: The Journal of Finance* (Vol. 46, Issue 1).

[29] Haugen, R. A., &Senbet, L. W. (1978). The Insignificance of Bankruptcy Costs to the Theory of Optimal Capital Structure. In *Source: The Journal of Finance* (Vol. 33, Issue 2).

[30] Holmes, S., & Kent, P. (1991). *An Empirical Analysis of the Financial Structure of Small and Large Australian Manufacturing Enterprises*.

[31] Ahmadimousaabad, A., Bajuri, N., Jahanzeb, A., Karami, M., & Rehman, S. (2013). Trade-off theory, pecking order theory and market timing theory: a comprehensive review of capital structure theories. International Journal of Management and Commerce Innovations, 1(1), 11-18.

[32] Jensen, M. C. (1986). *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers* (Vol. 76, Issue 2). American Economic Association.

[33] John, T. A. (1993). Accounting Measures of Corporate Liquidity, Leverage, and Costs of Financial Distress. In *Source: Financial Management* (Vol. 22, Issue 3). https://about.jstor.org/terms

[34] Karasek, R., & Bryant, P. (2012). *Signaling Theory: Past, Present, and Future*. https://www.researchgate.net/publication/287028676

[35] Krishnaswami, Sudha and Spindt, Paul A. and Subramaniam, Venkat R. (1999). Information Asymmetry, Monitoring, and the Placement Structure of Corporate Debt. Journal of Financial Economics, Vol. 51(3), Available at SSRN: https://ssrn.com/abstract=149308

[36] La Rocca, M., La Rocca, T., & Cariola, A. (2011). Capital Structure Decisions During a Firm's Life Cycle. In *Source: Small Business Economics* (Vol. 37, Issue 1).

[37] Leland, H. E. (1994). Corporate Debt Value, Bond Covenants, and Optimal Capital Structure. In *Source: The Journal of Finance* (Vol. 49, Issue 4).

[38] Levine, R. (2003). More on Finance and Growth: More Finance, More Growth? *Review*, *85*(4). https://doi.org/10.20955/r.85.31-46

[39] Lin, C., Ma, Y., Malatesta, P., & Xuan, Y. (2011). Ownership structure and the cost of corporate borrowing. *Journal of Financial Economics*, *100*(1), 1–23. https://doi.org/10.1016/j.jfineco.2010.10.012

[40] Lin, C., Ma, Y., Malatesta, P., Xuan, Y., Esty, B., Gilson, S., Gompers, P., Porta, R. La, Listokin, Y., Schwert, B., Shleifer, A., Starks, L., Stein, J., Villalonga, B., Weisbach, M., & Weisbenner, S. (2010). *Ownership Structure and the Cost of Corporate Borrowing* *. http://ssrn.com/abstract=1522726

[41] Lins, K. V., Servaes, H., & Tufano, P. (2010). What drives corporate liquidity? An international survey of cash holdings and lines of credit. Journal of financial economics, 98(1), 160-176.

[42] *Majumdar, R. (2010). Corporate Borrowing and Growth Opportunities: Evidence from Indian Manufacturing Sector. IUP Journal of Applied Finance, 16(5).*

[43] Majumdar, S., & Sen, K. (2010). *Corporate Borrowing and Profitability in India*. *31*(1), 33–45. https://doi.org/10.1002/mde.l472

[44] Majumdar, S., &Senb, K. (2010). Corporate borrowing and profitability in India. *Managerial and Decision Economics*, *31*(1), 33–45. https://doi.org/10.1002/mde.1472

[45] Martin, J. D., &Sayrak, A. (2003). Corporate diversification and shareholder value: A survey of recent literature. In *Journal of Corporate Finance* (Vol. 9, Issue 2, pp. 37–57). Elsevier. https://doi.org/10.1016/s0929-1199(01)00053-0

[46] K. N. Vhatkar and G. P. Bhole, "Optimal container resource allocation in cloud architecture : A new hybrid model," Journal of King Saud University - Computer and Information Sciences, vol. 34, no. 5, pp. 1906–1918, 2022, doi: 10.1016/j.jksuci.2019.10.009.

[47] Mavlanova, T., Benbunan-Fich, R., & Koufaris, M. (2012). Signaling theory and information asymmetry in online commerce. *Information and Management*, *49*(5), 240–247. https://doi.org/10.1016/j.im.2012.05.004

[48] Modigliani, F., & Miller, M. H. (1958). *The Cost of Capital, Corporation Finance and the Theory of Investment* (Vol. 48, Issue 3).

[49] Modigliani, F., & Miller, M. H. (1959). *The Cost of Capital, Corporation Finance, and the Theory of Investment: Reply* (Vol. 49, Issue 4).

[50] Myers, C. (1977). Determinants of Corporate Borrowing. Stewart C. Myers. *Journal of Financial Economics*, *5*, 147–175.

[51] 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

[52] O'Brien, J. P. (2003). The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, *24*(5), 415–431. https://doi.org/10.1002/smj.308

[53] Opler, T. C., & Titman, S. (1994). Financial Distress and Corporate Performance. In *Source: The Journal of Finance* (Vol. 49, Issue 3).

[54] K. N. Vhatkar and G. P. Bhole, "Particle swarm optimisation with grey wolf optimisation for optimal container resource allocation in cloud," IET Networks, vol. 9, no. 4, pp. 189–199, 2020, doi: 10.1049/iet-net.2019.0157.

[55] Pfaffermayr, M., Stöckl, M., & Winner, H. (2013). Capital structure, corporate taxation and firm age. Fiscal Studies, 34(1), 109-135.

[56] Qian Philip Strahan, J. E., Allen, F., Beck, T., Levine, R., Shleifer, A., Qian, J., & Strahan, P. E. (2005). *NBER Working Paper Series.How Law and Institutions Shape Financial Contracts: The Case of Bank Loans*. http://www.nber.org/papers/w11052

[57] Rubinstein, M. (2003). Great Moments in Financial Economics: ii. Modigliani-Miller Theorem. In *www.joim.com Journal of Investment Management*(Vol. 1, Issue 2). www.joim.com

[58] Salubi, I. L., & Marcella, E. C. (2010). *Corporate Borrowing and Growth Opportunities: Evidence from Indian Manufacturing Sector Corporate Borrowing and Growth Opportunities: Evidence from Indian Manufacturing Sector*.

[59] Sethi, M., & Swain, R. K. (2019). Determinants of cash holdings: A study of manufacturing firms in India. *International Journal of Management Studies*, *6*(2), 11-26.

[60] Sethi, M., & Swain, R. K. (2019). Cash Holdings & Its Determinants: A Study of Cotton & Textile Industry in India. *Orissa Journal of Commerce*,40(2), 1-13.

[61] Shapiro, S. P. (2005). Agency theory. In *Annual Review of Sociology* (Vol. 31, pp. 263–284). https://doi.org/10.1146/annurev.soc.31.041304.122159

[62] Shyam-Sunder, & Stewart, M. (1994). *NBER Working Paper Series. Testing Static Trade-Off Against Pecking Order Models OF Capital Struture*.

[63] Silaghi, F. (2018). The use of equity financing in debt renegotiation. Journal of Economic Dynamics and Control, 86, 123-143.

[64] Sonali D. Patil, Roshani Raut, Rutvij H. Jhaveri, Tariq Ahamed Ahanger, Pallavi V. Dhade, Atul B. Kathole, Kapil N. Vhatkar, "Robust Authentication System with Privacy Preservation of Biometrics",

Security and Communication Networks, vol. 2022, Article ID 7857975, 14 pages, 2022. https://doi.org/10.1155/2022/7857975.

[65] Stiglitz, J. E. (1969). *Behavior Towards Risk with Many Commodities* (Vol. 37, Issue 4). https://www.jstor.org/stable/1910441

[66] Stiglitz, J. E., & Weiss, A. (1981). *Credit Rationing in Markets with Imperfect Information* (Vol. 71, Issue 3).

[67] Stohs, M. H., & Mauer, D. C. (1996). The Determinants of Corporate Debt Maturity Structure. In *Source: The Journal of Business* (Vol. 69, Issue 3). https://www.jstor.org/stable/2353370

[68] Taj, S. A. (2016). Application of signaling theory in management research: Addressing major gaps in theory. *European Management Journal*, *34*(4), 338–348. https://doi.org/10.1016/j.emj.2016.02.001

[69] Van Binsbergen, John Graham, & Jie Yang. (2010). *The Cost of Debt*. http://www.nber.org/papers/w16023

[70] Zhang, J., & Wu, W. ping. (2017). Leveraging internal resources and external business networks for new product success: A dynamic capabilities perspective. *Industrial Marketing Management*, *61*, 170–181. https://doi.org/10.1016/j.indmarman.2016.06.001