CHAPTER I

INTRODUCTION

Money is the root of all progress. In academic and profession jargon, it is termed as finance. The different levels of finance include business finance, personal finance and public finance. Across different levels, the term ‘finance’ is used in three senses. First, it refers to stock of money. Second, it refers to arrangements to meet commitments. Third, it refers to make arrangements to raise finance based on cost minimization, because money is scarce and hence money, like goods and services, can be bought and sold for a price. The focus of interest in finance mainly comes from business activities. When money is raised for business activities, it is labeled as financial capital. The field of finance deals with the concepts of time, money and risk and how they are interrelated. Since financial capital has a price, its acquisition and future utilization will have to be evaluated carefully. We may describe the task of finance as consisting of three: (i) Anticipating financial needs, (ii) Acquiring financial resources, and (iii) Allocating funds for economic activities. Hence, it is popularly described as the science of funds management.

1.1 ORIGIN OF THE TERM CAPITAL

Financial capital can refer to money used by entrepreneurs and businesses to buy what they need to make their products or provide their services or to that sector of the economy based on its operation, that is, retail, corporate, investment banking, etc. Financial capital or just capital in finance and accounting, refers to the funds provided by lenders (and investors) to businesses to purchase real capital equipment for producing goods/services. Real capital or economic capital comprises physical goods that assist in the production of other goods and services, examples shovels for gravediggers, sewing machines for tailors, or machinery and tooling for factories.
Financial capital generally refers to saved-up financial wealth especially that used to start or maintain a business. A financial concept of capital is adopted by most entities in preparing their financial reports. Under a financial concept of capital, such as invested money or invested purchasing power, capital is synonymous with the net assets or equity of the entity. Under a physical concept of capital, such as operating capability, capital is regarded as the productive capacity of the entity based on, for example, units of output per day. Financial capital maintenance can be measured in either nominal monetary units or units of constant purchasing power. There are thus three concepts of capital maintenance in terms of International Financial Reporting Standards (IFRS): (1) Physical capital maintenance (2) Financial capital maintenance in nominal monetary units (3) Financial capital maintenance in units of constant purchasing power. Financial capital is provided by lenders for a price: interest. Furthermore, financial capital is any liquid medium or mechanism that represents wealth, or other styles of capital. It is, however, usually purchasing power in the form of money available for the production or purchasing of goods, etcetera. Capital can also be obtained by producing more than what is immediately required and saving the surplus. The way in which a company's assets are financed, such as short-term borrowings, long-term debt, and owners equity. Financial structure differs from capital structure in that capital structure accounts for long-term debt and equity only.

Financial capital has been subcategorized by some academics as economic or "productive capital" necessary for operations, signaling capital which signals a company's financial strength to shareholders, and regulatory capital which fulfills requirements.
Sources of capital

Long term - usually above 7 years

- Share capital, Mortgage loan, Retained profit, Venture capital, Debenture, project finance.

Medium term - usually between 2 and 7 years

- Term loans, Leasing, Hire purchase.

Short term - usually under 2 years

- Bank overdraft, Trade credit, Deferred expenses, Factoring, Capital Market

Differences between Shares and Debentures

Share is the share in the share capital of the company and share capital is split into number of units to facilitate the subscription by the public. Whereas, the debenture is nothing but an acknowledgment of debt provided by the lenders. The shareholders and debenture holders are different in the following ways:

- Shareholders are effectively owners; debenture holders are creditors.
- Shareholders may vote at annual general meetings (AGMs) and be elected as directors; debenture holders may not vote at annual general meetings (AGMs) or be elected as directors.
- Shareholders receive profit in the form of dividends; debenture holders receive a fixed rate of interest.
- If there is no profit, the shareholder does not receive a dividend; interest is paid to debenture-holders regardless of whether or not a profit has been made.
- In case of dissolution of firms debenture holders are paid first as compared to shareholder.
**Fixed Capital:** This is the money which is used to purchase assets that will remain permanently in the business and help it to make a profit.

**Factors determining Fixed Capital requirements:** Nature of business, size of business, stage of development, capital invested by the owners, location of that area.

**Working Capital:** Working capital is that part of capital invested which is used for running the business such money which is used to buy stock, pay expenses and finance credit.

**Factors determining Working Capital requirements:** Size of business, stage of development, time of production, rate of stock turnover ratio, buying and selling terms, seasonal consumption, seasonal product, profit level, growth and expansion, production cycle, general nature of business, business cycle

The Capital structure is how a firm finances its overall operations and growth by using different sources of the above mentioned funds.

1.2 CONCEPT OF CAPITAL STRUCTURE

The capacity of a firm to operate its activities is based on the availability of funds. Normally, these funds in finance literature are termed as long term funds, which are contributed by owners (shareholders) and outsiders. The owners’ funds are represented by equity contributions and internally generated financial resources. A unique characteristic of procuring funds is that a firm may tap any of these sources and hence the blend of these different sources of long term funds is termed as capital structure in finance literature. Capital structure ordinarily implies the proportion of debt and equity in the total capital of a firm. In the term, ‘capital structure,’ capital refers to long term funds and structure refers to the proportion of debt and equity in capital. Further, capital is easily comprehended through accounting
as the difference between total assets and current liabilities, and this residual difference is always represented by debt and equity.

According to Osborn (1884:1959), the term capital structure is used to mean the financial plan according to which all assets of a corporation are furnished. This capital is supplied by long and short term borrowings, the sole of preferred and common stock and the reinvestment of earnings. He further states that, ‘in analyzing the capital structure of an enterprise, short term debt is often excluded from considerations’. Many others include only long term sources of funds under the capital structure. Guthmann and Dougall (1955:76) state that the phrase capital structure may be used to cover the total combined investment of bond holders, and the total stockholders’ investment including retained earnings as well as original investment. Both the concepts of capital structure have their own merits and demerits.

Capital structure could be defined in different ways. In the US, it is common to define capital structure in terms of long-term debt ratio. In a number of countries, particularly the emerging markets, companies employ both short-term and long-term debt for financing their assets, including current assets. It is also common for companies in developing countries to substitute short-term debt for long-term debt and roll over short-term debt. Hence, it is more appropriate and particularly in the context of developing economies, to define capital structure as total debt ratio. Rajan and Zingales (1995) argue that the definition of capital structure would depend on the objective of the analysis. For example, for agency-problem related studies, capital structure may be measured by total debt-to-firm value ratio. Debt could be divided into its various components, and numerator and denominator could be measured in book value and market value terms.
1.3 DEFINITION OF CAPITAL STRUCTURE/FINANCIAL LEVERAGE

In finance, capital structure refers to the way a corporation finances its assets through some combination of equity, debt, or hybrid securities. A firm’s capital structure is then the composition or 'structure' of its liabilities. A mix of a company’s long-term debt, specific short-term debt, common equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

The term capital structure refers to the age of capital (money) at work in a business by type. Broadly speaking, there are two forms of capital: owned capital and debt capital. Each has its own benefits and drawbacks and a substantial part of wise corporate stewardship and management is attempting to find the perfect capital structure in terms of risk / reward payoff for shareholders. This is true for fortune 500 companies and for small business owners trying to determine how much of their startup money should come from a bank loan without endangering the business. Owned capital: This refers to money put up and owned by the shareholders (owners). Typically, owned capital consists of two types: 1.) contributed capital, which is the money that was originally invested in the business in exchange for shares i.e. preference and equity or ownership and 2.) retained earnings, which represents profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion. Many consider equity capital to be the most expensive type of capital a company can utilize because it’s "cost" is the return the firm must earn to attract investment. A speculative mining company, that is, looking for silver in a remote region of Africa may require a much higher return on equity
to get investors to purchase the stock than a firm such as Procter and Gamble, which sells everything from toothpaste and shampoo to detergent and beauty products. **Debt capital:** The debt capital in a company's capital structure refers to borrowed money, that is, at work in the business. The safest type is generally considered long-term bonds because the company has years, if not decades, to come up with the principal, while paying interest only in the meantime.

Other types of debt capital can include short-term commercial paper utilized by giants such as Wal-Mart and General Electric that amount to billions of dollars in 24-hour loans from the capital markets to meet day-to-day working capital requirements such as payroll and utility bills. The cost of debt capital in the capital structure depends on the health of the company's Balance Sheet - a triple AAA rated firm is going to be able to borrow at extremely low rates versus a speculative company with tons of debt, which may have to pay 15 percent or more in exchange for debt capital.

**Other forms of capital:** There are actually other forms of capital, such as vendor financing where a company can sell goods before they have to pay the bill to the vendor that can drastically increase return on equity but don't cost the company anything. This was one of the secrets to Sam Walton's success at Wal-Mart. He was often able to sell Tide detergent before having to pay the bill to Procter and Gamble, in effect, using Procter and Gamble money to grow his retailer. In the case of an insurance company, the policyholder "float" represents money that doesn't belong to the firm but that it gets to use and earn an investment on until it has to pay it out for accidents or medical bills, in the case of an auto insurer. The cost of other forms of capital in the capital structure varies greatly on a case-by-case basis and often comes down to the talent and discipline of managers.

The term capital structure is used in the context of Financial Leverage. Whereas capital structure is a mix of debt with equity, in order to check real
effect of leverage on return on equity, it is necessary to study financial leverage. Financial leverage refers to the use of debt to acquire additional assets. Financial leverage may decrease or increase return on equity in different conditions. Financial over-leveraging means incurring a huge debt by borrowing funds at a lower rate of interest and using the excess funds in high risk investments in order to maximize returns. The degree to which an investor or business is utilizing borrowed money. Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt; they may also be unable to find new lenders in the future. Financial leverage is not always bad, however; it can increase the shareholders' return on investment and often there is tax advantages associated with borrowing.

1.4 CAPITAL STRUCTURE ANALYSIS

The domain of capital structure analysis is often presented through structural leverage, which expresses the relationship between owners’ capital and debt capital. The main ratios in analyzing capital structure include debt-equity ratios, total debt-equity ratio and debt to net worth ratio. The debt-equity ratio is determined by dividing long-term debt by shareholders funds (net worth). Total debt to equity ratio is calculated by dividing long-term debt plus short-term liability by shareholders funds. Debt to net worth ratio is determined by dividing long-term debt by shareholders funds. In fact, these structural leverage ratios are also called ‘capital gearing ratios.’ It is also important to note that when capital structure analysis is made, often the term, ‘leverage’ is popularly used.

1.5 MODIGLIANI AND MILLER HYPOTHESES

The choice of capital structure is one of the central issues in corporate finance. The origin of the issue lies in the seminal discussions by Modigliani and Miller (1958 and 1963), which proposed that capital structure is irrelevant so long as financial markets are perfect. The Modigliani and Miller (MM) is
propound on three fundamental propositions. Proposition I states that “the market of any firm is independent of its capital structure, change in the gearing ratio cannot have any effect on the company’s annual cash flow.” Proposition II states that “the rate of return required increases linearly as the debt/equity ratio is increased, that is, the cost of equity rises exactly in line with any increase in gearing to precisely offset any benefits conferred by the use of apparently cheap debt.” Proposition III posits that “the cut-off rate for new investment will in all cases be average cost of capital and will be unaffected by the type of security used to finance the investment.”

1.6 OPTIMAL FINANCIAL STRUCTURE

In recent years a considerable effort has gone into the study of financial markets under asymmetric information in an attempt to explain the failure of those markets to engender efficient levels of investment (Rizov: 2008). In contrast with the economics of capital structure in modern corporations, this literature has paid relatively little attention to the theoretical analysis of the effects stemming from the mixed form of financial arrangement (Brounen et al: 2006). Optimal contracts between two parties assume either the form of debt, as in De Meza and Webb (1987), Gale and Hellwig (1985) and Williamson (1987), or the form of equity, as shown by De Meza and Webb (1987) in Stiglitz and Weiss (1981). And yet modern corporations’ exhibit in their capital structure both debt and equity (inside and outside). Moreover, on the theoretical level, Williamson (1988) shows that an optimal mix of debt and equity, which is termed “dequity,” may supplant both debt and equity. Likewise, Stiglitz (1988) notes that “these forms of financial constraints are but extreme examples, demonstrating clearly that the financial structure of firms can make a difference.” Theories of optimal financial structure can be derived, with the optimal structure depending on the nature of the information problem being faced. However, it is important to note that the optimal financial structure is theoretically and scientifically is a useful concept, but this optimal capital structure seems to benefit into practice in the
corporate world through the target capital structure, also known as the trade-off theory. Lastly, the study by Scott (1972) is one of the earliest empirical studies to find that optimal financial structures exist not only in theory but also in practice. His study confirms the traditional theory that the objective of minimizing the cost of capital leads to an optimal level of financial structure.

1.7 THEORETICAL DEVELOPMENTS

Many researchers in finance have developed many theories or generalizations about the capital structure based on the endogenous and exogenous environment. The present study documents only those generalizations related to the present topic of research.


Leverage is negatively correlated with the interest coverage ratio and the probability of reorganization following default (Harris and Raviv (1990a). Leverage increases with fraction of cash flow, that is, unobservable (Chang (1987) Leverage increases with extent to which the firm is a takeover target or lack of anti-takeover measures (Stulz (1990), Hirshleifer (1964). Firms with longer track records have lower default probabilities (Diamond (1989). Leverage increases with decreases in investigation costs (Harris and Raviv (1990a). Leverage increases with extent to which product is not unique and does not require specialized service (Titman, 1984).
Leverage Increases with extent of strategic Interaction In the product market (Brander and Lewis (1986). Leverage increases with elasticity of demand for the product (Maksimovic (1988). Leverage increases with the extent to which reputation for product quality is unimportant (Maksimovic and Titman (Forthcoming).

Leverage increases with extent to which workers are unionized or have transferable skills (Sarig (1988). Leverage increases with potential gains to takeover and reductions in their costs. Leverage is positively correlated with target premium (Stulz (1988).

Leverage increases with extent to which the firm is a takeover target or lack of anti takeover measures Harris and Raviv (1988), Stulz (1988). Leverage is negatively correlated with target premium (Israel (Forthcoming). Targets of successful proxy fights have more debt than targets of unsuccessful proxy fights (Harris and Raviv 1988). Targets of proxy fights have more debt than targets of successful tender offers (Harris and Raviv 1988). Stock price increases on announcement of debt issues, debt issues debt-for-equity exchanges, or stock repurchases and decreases on announcement of equity issues or equity-for-debt changes Harris and Raviv (1990), Stulz (1990), Hirshleifer (1964).

1.8 APPROACHES TO CAPITAL STRUCTURE DETERMINATION

The market imperfections have led to the emergence of different theories of capital structure repudiating the MM hypotheses. In fact, these theories are the approaches or strategies to capital structure decisions. These theories focus on the optimal capital structure, risk level, managerial attitude towards debt, or market conditions. The main theories of capital structure decisions include (i) Trade-off theory; (ii) Pecking order theory; (iii) Agency cost theory. (iv) Managerial entrenchment theory; and (IV) Market timing theory.
(i) Trade-off theory:

In perfect and efficient market, Modigliani and Miller (1958) show that capital structure is irrelevant. The trade-off theory determines an optimal capital structure by adding various imperfections, including taxes, costs of financial distress, and agency costs, but retains the assumptions of market efficiency and symmetric information. Some of the imperfections that lead to an optimal trade-off are as follows. Higher taxes on dividends indicate more debt Modigliani and Miller (1963) and Miller and Scholes (1978)). Higher non-debt tax shields indicate less debt DeAngelo and Masulis (1980)). Higher costs of financial distress indicate more equity. Short of bankruptcy, senior debt can force managers to forgo profitable investment opportunities (Myers (1977)). Agency problems can call for more or less debt. Too much equity can lead to free cash flow and conflicts of interest between managers and shareholders (Jensen (1986)). Too much debt can lead to asset substitution and conflicts of interest between managers and bondholders (Fama and Miller 1972) and Jensen and Meckling (1976)). Harris and Raviv (1991) survey these and other possible influences on optimal capital structure.

The market-to-book ratio can be connected to several elements of the trade-off theory. It is most commonly attached to costly financial distress as in Myers (1977), Smith and Watts (1992), Rajan and Zingales (1995), and Barclay, Smith, and Watts (1995). The idea is that firms with substantial growth and investment opportunities have the most to lose when overhanging debt prevents new capital from being raised or leads to an inefficient bankruptcy negotiation during which some investment opportunities are forever lost.

The key testable prediction of the trade-off theory is that capital structure eventually adjusts to changes in the market-to-book ratio. The evidence indicates, however, that variation in the market-to-book ratio has a decades-long impact on capital structure. In fact, past variation in market
valuations is more important than several other variables suggested as determinants of the current optimum, including the current market valuation. One could argue that adjustment costs are so large, or deviating from the optimum involves such a small penalty that adjustment within a 10-year span is not worthwhile.

Though the primary existing theories of corporate capital structure explaining firms' financing decisions (tradeoff, pecking order, and market timing theories) do not unanimously agree on whether firms operate around an optimal capital structure level, there is recent empirical evidence supporting the existence of a target leverage ratio. In addition, survey results presented by Graham and Harvey (2001) indicate that about 80 of the Chief Financial Officer’s (CFOs) in their sample affirm having a target range or “strict” target for their debt–equity ratio. These Chief Financial Officer’s (CFOs) also acknowledge the advantages and costs associated with debt financing. In other words, firm managers claim to act in ways that are consistent with the trade-off theory.

Leary and Roberts (2005) show that the presence of adjustment costs produces a clustering of leverage rebalancing. Faulkender et al. (2008) investigate the role played by adjustment costs in firms' correction back towards their target leverage ratios and find faster adjustment speed when adjustment costs are sunk relative to when these costs are incremental. For example, we know that the economic cycle phase is an important determinant of default risk, which in turn affects the cost of raising capital.

According to trade-off hypotheses, tangible assets act as collateral and provide security to lenders in the event of financial distress. Collaterality also protects lenders from moral hazard problem caused by the shareholders-lenders conflict (Jensen and Meckling, 1976). Thus, firms with higher tangible assets are expected to have high level of debt. As regards the empirical evidence, some studies report a significant positive relationship
between tangibility and total debt (Titman and Wessels, 1988; and Rajan and Zingales, 1995).

(ii) Pecking order theory:

In the pecking order theory described by Myers (1984), there is no optimal capital structure. To be more precise, if there is an optimum level, the cost of deviating from it is insignificant in comparison to the cost of raising external finance. Raising external finance is costly because managers have more information about the firm’s prospects than outside investors and because investors know this. In Myers and Majluf (1984), outside investors rationally discount the firm’s stock price when managers issue equity instead of riskless debt. To avoid this discount, managers avoid equity whenever possible. The Myers and Majluf model predicts that managers will follow a pecking order, using up internal funds first, then using up risky debt, and finally resorting to equity. In the absence of investment opportunities, firms retain profits and build up financial slack to avoid having to raise external finance in the future.

The pecking order theory regards the market-to-book ratio as a measure of investment opportunities. With this interpretation in mind, both Myers (1984) and Fama and French (2000) note that a contemporaneous relationship between the market-to-book ratio and capital structure is difficult to reconcile with the static pecking order model. Iteration of the static version also suggests that periods of high investment opportunities will tend to push leverage higher toward a debt capacity. To the extent that high past market-to-book actually coincides with high past investment, however, our results suggest that such periods tend to push leverage lowers.

Myers (1984) suggests a more dynamic version in which high growth firms reduce leverage in order to avoid raising equity as investment opportunities arise in the future. According Myers and Majluf (1984), the financing of a firm follows the sequence of internal capital, then debt, and
finally external equity. Highly profitable firms may be able to finance their growth using earned income, whereas less profitable firms will be forced to resort to debt financing and, therefore, will increase leverage.

The study by French and Fama (2002) Confirm the pecking order model but contradict the trade-off model, more profitable firms are less levered. Firms with more investments have less market leverage, which is consistent with the trade-off model and a complex pecking order model. Firms with more investments have lower long-term dividend payouts, but dividends do not vary to accommodate short-term variation in investment.

(iii) Managerial entrenchment theory:

In the dynamic theory of capital structure based on managerial entrenchment in Zwiebel (1996), high valuations and good investment opportunities facilitate equity finance, but at the same time allow managers to become entrenched. They may then refuse to raise debt to rebalance in later periods. This has a market-timing flavor, since managers issue equity when valuations are high and do not subsequently rebalance, but a very different interpretation. Managers are not attempting to exploit new investors; rather, they are exploiting existing investors ex post by not rebalancing (Booth et al: 2001). Both views may be valid. However, the first view gains support from the survey evidence and particularly from the evidence on earnings management and the long-run returns following equity issues and repurchases.

(iv) Market timing theory:

The market timing theory implies that capital structure evolves as the cumulative outcomes of past attempts to time the equity market. There are two versions of equity market timing that lead to similar capital structure dynamics. The first is a dynamic form of Myers and Majluf (1984) with rational managers and investors and adverse selection costs that vary across
firms or across time. Lucas and McDonald (1990) and Korajczyk, Lucas, and McDonald (1992) study adverse selection that varies across time. Consistent with these stories, Korajczyk et al (1991) find that firms tend to announce equity issues following releases of information, which may reduce information asymmetry. Also, Bayless and Chaplinsky (1996) find that equity issues cluster around periods of somewhat smaller announcement effects.

The second version of equity market timing involves irrational investors (or managers) and time-varying mispricing (or perceptions of mispricing). Managers issue equity when they believe its cost is irrationally low and repurchase equity when they believe its cost is irrationally high. The studies by La Porta (1996), La Porta et al (1997), Frankel and Lee (1998), Shleifer (2000), Graham and Harvey (2001), Loughran and Ritter (1995), and Baker and Wurgler (2000) focus on market timing theory.

(v) Agency cost theory:

Long back, Adam Smith (1776) observed, “The directors of such (joint-stock) companies, however, being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartner frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master’s honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company”.

The agency cost theory is premised on this observation of Adam Smith in the sense that the interests of the company’s managers and its shareholders are not perfectly aligned. In their seminal paper Jensen and Meckling (1976) emphasized the importance of the agency costs of equity arising from the separation of ownership and control of firms whereby managers tend to
maximize their own utility rather than the value of the firm. These conflicts may occur in situations where managers have incentives to take excessive risks as part of risk shifting investment strategies. This leads us to Jensen’s (1986) “free cash flow theory” it is stated by Jensen (1986, p. 323) “the problem is how to motivate managers to disgorge the cash rather than investing it below the cost of capital or wasting it on organizational inefficiencies.” Thus high debt ratios may be used as a disciplinary device to reduce managerial cash flow waste through the threat of liquidation (Grossman and Hart, 1982) or through pressure to generate cash flows to service debt (Jensen, 1986). In these situations, debt will have a positive effect on the value of the firm.

Agency costs can also exist from conflicts between debt and equity investors. These conflicts arise when there is a risk of default. The risk of default may create what Myers (1977) referred to as an “underinvestment” or “debt overhang” problem. In this case, debt will have a negative effect on the value of the firm. Building on Myers (1977) and Jensen (1986), Stulz (1990) develops a model in which debt financing is shown to mitigate overinvestment problems but aggravate the underinvestment problem. The model predicts that debt can have both a positive and a negative effect on firm performance and presumably both effects are present in all firms (McConnell and Servaes, 1995).

1.9 DETERMINANTS OF CAPITAL STRUCTURE

The literature on capital structure is writ large with the identification of innumerable determinants of capital structure. These determinants are largely the result of liquidating the assumptions of Modigliani and Millers hypotheses. However, the most important determinants of capital structure often researched are tangibility, profitability, firm size, growth opportunity, non-debt tax shield, liquidity, volatility of earnings, and share price performance.
**Tangibility** is defined as the ratio of total fixed assets to total assets. Agency theory suggests that firms with high leverage tend to under-invest, or invest sub-optimally, and thus transfer wealth away from debt holders to equity holders. These cause lenders to require collateral because the use of secured debts can help alleviate this problem. Moreover, the liquidation value of the firm increases with the tangibility of assets and decreases the probability of mispricing in the event of bankruptcy. Firms unable to provide collaterals will have to pay higher interest, or will be forced to issue equity instead of debt (Scott, 1977). Thus, a positive relationship between tangibility of assets and leverage is anticipated.

**Profitability** is defined as the ratio of earnings before interest, tax and depreciation to total assets. The pecking-order theory postulates that managers prefer to finance projects internally because of the informational asymmetry between managers and outside investors. In addition, profitable firms prefer not to raise external equity in order to avoid potential dilution of ownership. Thus we expect an inverse relation between profitability and leverage. Most of the studies highlight that profitability is negatively related to leverage—further support for the pecking-order theory for Latin American firms (Bradley et al. (1984), Titman and Wessels (1988), Kale et al., (1992), Flannery and Rangan (2006), and Hovakimian (2006)).

**Firm size** is measured by the natural log of assets. The trade-off theory postulates a positive relationship between firm size and debt, since larger firms have been shown to have lower bankruptcy risk and relatively lower bankruptcy cost. In addition, large firms have lower agency costs of debt; relatively smaller monitoring costs, less volatile cash flows, easier access to credit market, and require more debt to fully benefit from the tax shield. Therefore, firm size is expected to have a positive impact on leverage.

**Growth opportunity** is defined as the book value of total assets less the book value of equity plus the market value of equity divided by the book
value of total assets. Higher growth opportunities provide incentives to invest sub-optimally, or to accept risky projects that expropriate wealth from debt-holders. This raises the cost of borrowing and thus growth firms tend to use internal resources or equity capital rather than debt. In addition, high growth firms whose value comes from intangible growth opportunities do not want to commit themselves to debt servicing as their revenue may not be available when needed. Therefore, an inverse relationship between growth opportunity and leverage is postulated.

In the absence of more accurate measures, the non-debt tax shield is defined as the ratio of depreciation to total assets. As predicted by the trade-off theory, a major motivation for using debt instead of equity is to save corporate tax. However, firms can use non-debt tax shields such as depreciation to reduce corporate tax. Thus, a higher non-debt tax shield reduces the potential tax benefit of debt and hence it should be inversely related to leverage.

**Liquidity** is defined as the ratio of current assets to current liabilities. As predicted by the pecking order theory, firms with high liquidity will borrow less. In addition, managers can manipulate liquid assets in favor of shareholders against the interest of debt holders, increasing the agency costs of debt. Thus, a negative relationship between liquidity and leverage is expected.

The volatility of earnings is defined as the absolute difference between the annual age change in earnings before interest and taxes and the average of this change over the sample period. Higher volatility of earnings increases the probability of financial distress, since firms may not be able to fulfill their debt servicing commitments. Thus, firm’s debt capacity decreases with increases in earnings volatility leading to an expected inverse relation with leverage.
Share price performance is defined as the first difference of the logs of annual share prices, matched to the month of firms’ fiscal year-end. The history of share prices has been shown to have an impact on the firm’s capital structure. Due to the information asymmetry between managers and outside investors, new shares are issued at a discount. If equity is issued when shares are overvalued, the real cost of the discount to the existing shareholders can be smaller, or none. Therefore, firms prefer equity to debt when share prices increase. As predicted by the market timing theory (Baker and Wurgler, 2002), share price performance and leverage should be inversely related.

1.10 SIGNIFICANCE OF THE STUDY

Until the early nineties, corporate financial management in India was relatively a drab and placid activity. The financial sector reforms, with the onset of liberalization, privatization and globalization, have changed this placid activity into a versatile and dynamic activity. Corporate finance managers today have to choose from an array of financial instruments. They can now price them less freely. They are open to book-building process of IPOs. They have access to global financial markets. They have to deal with aggressive financial intermediaries and institutional investors. They are exposed to volatility of interest and exchange rates. They have to take serious note of capital structure decisions and worry about their credit ratings in view of competitive financial markets. All these challenges for corporate managers have been the result of abolition of capital issues control and the introduction of pricing of equity issues in 1992. Further, the establishment of Security Exchange Board of India (SEBI) in 1992, and enactments of Foreign Exchange Management Act in 1999, Depositories Act in 1996, Corporate Governance under Clause 49 of the Listing Agreement and Competition Act in 2002 in India have added to the complexities of managing the finances of Indian private corporate sector having a direct impact on capital structure decisions. The empirical studies on capital structure decisions in India have not focused on the possible changing patterns of capital structure scenario.
The studies related to capital structure analysis in India have concentrated only on small number of sample companies with a focus on a limited number of hypotheses. Hence the present study attempts to evaluate the patterns of capital structure in Indian corporate sector emerging from financial liberalization and capital market reforms. Further, no study has been conducted so far from the viewpoint of attitudes of corporate managers towards capital structure decisions in India. Indeed, the attitudes of managers towards capital structure decisions occupy the prime position in corporate finance and hence an enquiry into behavioral finance seems to be the right approach. The finding by Pinegar and Wilbricht (1989) of corporate managers choosing a financing hierarchy rather than maintaining a target debt-equity ratio supports this view. Further, the impact of corporate governance on capital structure has not been empirically tested anywhere excepting that of Williamson (1988) long back.

The studies related to capital structure analysis in India have concentrated only on small number of sample BSE 200 companies with a focus on a limited number of hypotheses. BSE-200 Index was launched on May 27, 1994 on full market capitalization method. Dollex-200 was also launched on May 27, 1994 and is calculated based on BSE-200 index. Dollex-200 is BSE-200 index represented in US dollars.

1.11 BOMBAY STOCK EXCHANGE 200 SELECTION CRITERIA

Companies are selected based on current market capitalization of the listed stocks and the market activity of the companies - transaction volumes and specific fundamental factors.

- **Trading Frequency** - The stock should have been traded on 90 days of the trading days in the last three months. Exceptions can be made for extreme reasons like stock trading suspension etc.
- **Final Rank** - The stock should be in the top 350 companies listed by final rank. The final rank is calculated at by assigning 75 weightage to the rank on the basis of three-month average full market capitalization and 25 weightage to the liquidity rank based on three-month average daily turnover and three-month average impact cost.

The Bombay Stock Exchange (BSE) is a stock exchange located on Dalal Street, Mumbai and is the oldest stock exchange in Asia. Over the years, the number of companies listed on BSE continued to register a phenomenal increase; from 992 in to over 3,200 companies by March 1994, with combined market capitalization rising from Rs.5,421 crore to Rs. 3,98,432 crore as on 31st March, 1994.Though SENSEX (1978-79=100) was serving the purpose of quantifying the price movements as also reflecting the sensitivity of the market in an effective manner, the rapid growth of the market necessitated compilation of a new broad-based index series reflecting the market trends in a more effective manner and providing a better representation of the increased equity stocks, market capitalization as also to the new industry groups. As such, BSE launched on 27th May 1994, two new index series-BSE-200 and Dollex-200. The equity shares of 200 selected companies from the specified and non-specified lists of BSE were considered for inclusion in the sample for `BSE-200'. The selection of companies was primarily been done on the basis of current market capitalization of the listed scrips. Moreover, the market activity of the companies as reflected by the volumes of turnover and certain fundamental factors were considered for the final selection of the 200 companies. The financial year 1989-90 was chosen as the base year because of the price stability exhibited during that year and due to its proximity to the current period. The equity market capitalization of the companies listed on the BSE was US$1 trillion as of December 2011, making it the 6th largest stock exchange in Asia and the 14th largest in the world. The BSE has the largest number of listed companies in the world. As of December 2011, there are over 5,112 listed Indian companies and over
8,196 scrips on the stock exchange, the Bombay Stock Exchange has a significant trading volume. The BSE SENSEX, also called "BSE 30", is a widely used market index in India and Asia. Though many other exchanges exist, BSE and the National Stock Exchange of India account for the majority of the equity trading in India. While both have similar total market capitalization (about USD 1.6 trillion), share volume in National Stock Exchange (NSE) is typically two times that of BSE. The Bombay Stock Exchange is the oldest exchange in Asia. It traces its history to the 1850s, when four Gujarati and one Parsi stockbroker would gather under banyan trees in front of Mumbai's Town Hall. The location of these meetings changed many times, as the number of brokers constantly increased. The group eventually moved to Dalal Street in 1874 and in 1875 became an official organization known as 'The Native Share and Stock Brokers Association'. In 1956, the BSE became the first stock exchange to be recognized by the Indian Government under the Securities Contracts Regulation Act. The Bombay Stock Exchange developed the BSE SENSEX in 1986, giving the BSE a means to measure overall performance of the exchange. In 2000 the BSE used this index to open its derivatives market, trading SENSEX futures contracts. The development of SENSEX options along with equity derivatives followed in 2001 and 2002, expanding the BSE's trading platform. Historically an open outcry floor trading exchange, the Bombay Stock Exchange switched to an electronic trading system in 1995. It took the exchange only fifty days to make this transition. This automated, screen-based trading platform called BSE On-line trading (BOLT) currently has a capacity of 8 million orders per day. The BSE has also introduced the world's first centralized exchange-based internet trading system, BSEWEBx.co.in to enable investors anywhere in the world to trade on the BSE platform. The BSE is currently housed in Phiroze Jeejeebhoy Towers at Dalal Street, Fort area. Following is the timeline on the rise of the SENSEX through Indian stock market history.
1830's Business on corporate stocks and shares in Bank and Cotton presses started in Mumbai.

1860-1865 Cotton price bubble as a result of the American Civil War.

1870 - 90's Sharp increase in share prices of jute industries followed by a boom in tea stocks and coal

1978-79 Base year of SENSEX, defined to be 100.

1986 SENSEX first compiled using a market capitalization-Weighted methodology for 30 component stocks representing well-established companies across key sectors.

30 October 2006 The SENSEX on October 30, 2006 crossed the magical figure of 13,000 and closed at 13,024.26 points, up 117.45 points or 0.9. It took 135 days for the SENSEX to move from 12,000 to 13,000 and 123 days to move from 12,500 to 13,000.

5 December 2006 The SENSEX on December 5, 2006 crossed the 14,000-mark to touch 14,028 points. It took 36 days for the SENSEX to move from 13,000 to the 14,000 mark.

6 July 2007 The SENSEX on July 6, 2007 crossed the magical figure of 15,000 to touch 15,005 points in afternoon trade. It took seven months for the SENSEX to move from 14,000 to 15,000 points.

19 September 2007 The SENSEX scaled yet another milestone during early morning trade on September 19, 2007. Within minutes after trading began, the SENSEX crossed 16,000, rising by 450 points from the previous close. The 30-share Bombay Stock Exchange's sensitive index took 53 days to reach 16,000 from 15,000. Nifty also touched a new high at 4659, up 113 points.

The SENSEX finally ended with a gain of 654 points at 16,323. The NSE Nifty gained 186 points to close at 4,732.
26 September 2007 The SENSEX scaled yet another height during early morning trade on September 26, 2007. Within minutes after trading began, the SENSEX crossed the 17,000-mark. Some profit taking towards the end saw the index slip into red to 16,887 - down 187 points from the day's high. The SENSEX ended with a gain of 22 points at 16,921.

9 October 2007 The BSE SENSEX crossed the 18,000-mark on October 9, 2007. It took just 8 days to cross 18,000 points from the 17,000 mark. The index zoomed to a new all-time intra-day high of 18,327. It finally gained 789 points to close at an all-time high of 18,280. The market set several new records including the biggest single day gain of 789 points at close, as well as the largest intra-day gains of 993 points in absolute term backed by frenzied buying after the news of the UPA and Left meeting on October 22 put an end to the worries of an impending election.

15 October 2007 The SENSEX crossed the 19,000-mark backed by revival of funds-based buying in blue chip stocks in metal, capital goods and refinery sectors. The index gained the last 1,000 points in just four trading days. The index touched a fresh all-time intra-day high of 19,096, and finally ended with a smart gain of 640 points at 19,059. The Nifty gained 242 points to close at 5,670.

29 October 2007 The SENSEX crossed the 20,000 mark on the back of aggressive buying by funds ahead of the US Federal Reserve meeting. The index took only 10 trading days to gain 1,000 points after the index crossed the 19,000-mark on October 15. The major drivers of rally were index heavyweights Larsen and Toubro, Reliance Industries, ICICI Bank, HDFC Bank and SBI among others. The 30-share index spurted in the last five minutes of trade to fly-past the crucial level and scaled a new intra-day peak at 20,024.87 points before ending at its fresh closing high of 19,977.67, a gain of 734.50 points. The NSE Nifty rose to a record high 5,922.50 points before ending at 5,905.90, showing a hefty gain of 203.60 points.
8 January 2008 The SENSEX peaks. It crossed the 21,000 mark in intra-day trading after 49 trading sessions. This was backed by high market confidence of increased FII investment and strong corporate results for the third quarter. However, it later fell back due to profit booking.

13 June 2008 The SENSEX closed below 15,200 mark, Indian market suffer with major downfall from January 21, 2008

25 June 2008 The SENSEX touched an intraday low of 13,731 during the early trades, then pulled back and ended up at 14,220 amidst a negative sentiment generated on the Reserve Bank of India hiking CRR by 50 bps. FII outflow continued in this week.

2 July 2008 The SENSEX hit an intraday low of 12,822.70 on July 2, 2008. This is the lowest that it has ever been in the past year. Six months ago, on January 10, 2008, the market had hit an all time high of 21206.70. This is a bad time for the Indian markets, although Reliance and Infosys continue to lead the way with mostly positive results.

6 October 2008 The SENSEX closed at 11801.70 hitting the lowest in the past 2 years.

10 October 2008 The SENSEX today closed at 10527, 800.51 points down from the previous day having seen an intraday fall of as large as 1063 points. Thus, this week turned out to be the week with largest age fall in the SENSEX

18 May 2009 After the result of 15th Indian general election SENSEX gained 2100.79 points from the previous close of 12173.42, a record one-day gain. In the opening trade itself the SENSEX evinced a 15 gain over the previous close which led to a two-hour suspension in trading. After trading resumed, the SENSEX surged again, leading to a full day suspension of trading.

19 October 2010 BSE introduced the 15-minute special pre-open trading session, a mechanism under which investors can bid for stocks before the
market opens. The mechanism, known as 'pre-open session call auction', lasted for 15 minutes (from 9:00-9:15 am).[7]

5 November 2010 BSE SENSEX crossed the 21000 mark (exactly 21004.96).

27 December 2010 BSE SENSEX is at 20,028.93.

Figure: 1.1

Indices

The graph of SENSEX from July 1997 to March 2011

The launch of SENSEX in 1986 was later followed up in January 1989 by introduction of BSE National Index (Base: 1983-84 = 100). It comprised 100 stocks listed at five major stock exchanges in India - Mumbai, Calcutta, Delhi, Ahmadabad and Madras. The BSE national index was renamed BSE-100 Index from October 14, 1996 and since then, it is being calculated taking into consideration only the prices of stocks listed at BSE. BSE launched the dollar-linked version of BSE-100 index on May 22, 2006. BSE launched two new index series on 27 May 1994: The 'BSE-200' and the 'DOLLEX-200'. BSE-500 Index and 5 sectoral indices were launched in 1999. In 2001, BSE launched BSE-PSU Index, DOLLEX-30 and the country's first free-float
based index - the BSE TECK Index. Over the years, BSE shifted all its indices to the free-float methodology (except BSE-PSU index). BSE disseminates information on the price-earnings ratio, the price to book value ratio and the dividend yield age on day-to-day basis of all its major indices. The values of all BSE indices are updated on real time basis during market hours and displayed through the BSE on Line trading (BOLT) system, BSE website and news wire agencies. All BSE Indices are reviewed periodically by the BSE Index Committee. This Committee which comprises eminent independent finance professionals frames the broad policy guidelines for the development and maintenance of all BSE indices. The BSE Index Cell carries out the day-to-day maintenance of all indices and conducts research on development of new indices. SENSEX is significantly correlated with the stock indices of other emerging markets.

1.12 AWARDS of BSE:

- The World Council of corporate governance has awarded the Golden Peacock Global CSR Award for BSE's initiatives in Corporate Social Responsibility (CSR).
- The Annual Reports and Accounts of BSE for the year ended March 31, 2006 and March 31, 2007 have been awarded the (ICAI) Institute of Chartered Accountant of India awards for excellence in financial reporting.
- It has been cited as one of the world's best performing stock market by Reuters.
- The Human Resource Management at BSE has won the Asia - Pacific HRM awards for its efforts in employer branding through talent management at work, health management at work and excellence in HR through technology.

1.13 BSE-200 INDEX – SCRIP SELECTION CRITERIA

1. Equities of companies listed on Bombay Stock Exchange Ltd. (excluding companies classified in Z group, listed mutual funds, scrips
suspended on the last day of the month prior to review date, scrips objected by the surveillance department of the exchange and those that are traded under permitted category) shall be considered eligible.

2. **Listing History:** The scrip should have a listing history of at least 3 months at BSE. An exception may be granted to one month, if the average free-float market capitalization of a newly listed company ranks in the top 10 of all companies listed at BSE. In the event that a company is listed on account of a merger / demerger / amalgamation, a minimum listing history is not required.

3. The scrip should have been traded on 90 percent of the trading days in the last three months.

4. All remaining companies are then ranked on average full market capitalization, average free-float market capitalization and average turnover for preceding 3 months.

5. A final rank is calculated giving weightage of 75 to rank on market capitalization (full and free-float separately) and 25 to rank on turnover.

6. A combined final rank is calculated by taking the summation of final rank based on full market capitalization and final rank based on free-float market capitalization.

7. Exclude all constituents with final rank beyond 220 based on full and free-float market capitalization.

8. Include all companies with (a) free float final rank and full final rank within 200; and (b) Superior combined final rank to the extent of total exclusions.

9. In case of any short-fall for inclusion, select companies with (a) free float final rank and combined final rank within 200; and (b) superior combined final rank.

10. Any further short-fall shall be filled-up by including companies based on combined final rank.
Hence the present study aims at a comprehensive analysis of different dimensions of trends in BSE 200 companies' capital structure such as the relationship between the leverage and the market value of the firm, the influence of the following factors such as market capitalization, profitability, growth, sectors and free cash flows on capital structure decisions on one hand and managerial perceptions of corporate managers regarding capital structure decisions on the other in the Indian corporate sector.

1.14 STATEMENT OF THE PROBLEM

In real-world state, the MM hypotheses do not and cannot exist because of several imperfections operating endogenously and exogenously. As financing decisions do matter in the real world, corporate finance literature has advanced a number of theories that show how various imperfections explain the observed patterns of capital structure. These explanations have mostly concentrated on the imperfections on the side of the firm: the optimal capital structure minimizes the costs borne by investors as a result of taxes, asymmetric information, conflicts of interest between management and shareholders, etc. Based on this observation, it is held that the search for optimal capital structure has led to U-shaped or bell-shaped cost of capital for any firm indicating that the cost of capital goes on decreasing with increased proportion of debt capital up to a certain point and afterwards the cost of capital goes on increasing with the increased debt proportion.

The existing researches on the capital structure have been largely confined to the United States and few other developed countries. Although the capital structure issue has received great importance in these countries, it has remained neglected in developing countries due to different economic and legal constraints. However the economic liberalization and reformation processes since 1980's in developing countries now have less institutional barriers. Research in this field will contribute to signify the importance of capital structure to value maximization objective of the firm. This study
attempts to shed some light on the capital structure issues in Indian context including capital structure influence.

1.15 RESEARCH GAP

However, there is no empirical evidence on the relationship of capital structure of corporate firms in India with market value of the firms and various factors influencing capital structure decisions. To our best knowledge there is no study in this context for India. The studies related to capital structure analysis in India have concentrated only on small number of sample companies with a focus on a limited number of hypotheses. Hence the present study attempts to evaluate the patterns of capital structure in Indian corporate sector emerging from financial liberalization and capital market reforms. Further, no study has been conducted so far from the viewpoint of attitudes of corporate managers towards capital structure decisions in India.

The issue is to analyze capital structure practices of Indian corporate, more specifically; this study deals with following issues:

1. To find out the relationship between return on equity of the firm and its financial leverage?

2. Does the return on equity of the firm and financial leverage vary between mid capitalization and large capitalization companies?

3. To find out the influence of the following factors on financial leverage decision of a firm:
   a) Market capitalization
   b) Growth
   c) Profitability
   d) And Ownership

4. Whether cash flow influences the financial leverage decision?

5. How the management perceives about financial leverage decision?
Hence the present study planned and entitled as “An Empirical evaluation of capital structure practices of corporate organizations in India”.

1.16 RESEARCH OBJECTIVES

For undertaking research on capital structure practices adopted in Indian corporate the following objectives have been identified:

(i) To present an overview of the conceptual foundations of capital structure and the historical developments

(ii) To study the relationship between return on equity of the firm and its financial leverage

(iii) To study the relationship between return on equity of the firm and its financial leverage for mid capitalization and large capitalization companies

(iv) To evaluate the influence of the following factors on financial leverage decision of a firm:

   1) Market capitalization

   2) Growth

   3) Profitability

   4) And Ownership

(v) To evaluate the influence of the free cash flow on financial leverage decision of a firm

(vi) To survey the attitudinal perception of corporate management towards financial leverage decision.

1.17 HYPOTHESES

In the background of the objectives of the study, the following hypotheses have been tested with regard to Indian corporate sector.

(i) “There is a positive relationship between return on equity of a firm and its financial leverage”
(ii) “The relationship between return on equity of a firm and its financial leverage varies between mid capitalization and large capitalization companies.”

(iii) “Financial leverage decision of a firm is influenced by the following factors”:

1) Market capitalization
2) Growth
3) Profitability
4) And Ownership

(iv) “Financial leverage decisions of a firm is influenced by the free cash flows”

(v) “The management of a firm has a positive bias towards financial leverage decision”.

1.18 RESEARCH METHODOLOGY

Based on the objectives and hypotheses for the study, the present research is based on the use of both secondary and primary sources of information. The study is undertaken through data collection method, using a well designed and structured questionnaire and the data for the present study is culled out from both primary and secondary sources. The secondary data is collected by referring the books and websites to present the conceptual analysis of capital structure practices adopted by Indian corporate. All the BSE 200 companies has been divided into eight sectors such as durable, non-durable, industrial product, service, chemicals production, infrastructure development, metal production and others. The primary data relates to the attitudinal perception of financial leverage practices adopted by Indian corporate which is collected through structured questionnaire.

The secondary sources of information is used to present an overview of conceptual foundations of capital structure decisions, empirical studies
forming the core of review of literature, and trends in capital structure in Indian corporate sector. The data used for the empirical analysis being derived from Data Stream, that is, from the Annual Reports. This database contains Balance Sheet, Profit and Loss, and Cash Flow statement information. Structured questionnaire is used to elicit response from sample corporate managers on financial leverage decision.

The selection of sample respondent companies for questionnaire was from BSE-200 companies. For perceptual analysis, questionnaires were sent to chief financial officers of BSE 200 companies and responses received from 120 Chief financial officers only forming 60.00 per cent of the BSE-200 companies. An optimum representation is being given to different types of companies based on capital intensity. The period covered for the study is between the financial year 2006 and 2011. This period has been chosen because financial reforms have taken place during this period and the Indian stock market has witnessed extreme positive and negative swings due to global crisis in financial sector. These swings seem to have an impact on the capital structure of Indian corporate sector.

The tool to study the attitudinal perception of financial leverage practices adopted by Indian corporate was the questionnaire method. The questionnaire was drafted in consultation with the chartered accountants and chief financial officers of the firm. The questionnaire consists of check list as well as Likert’s scale. The first four questions had “YES” or “No” kind of questions and from six to nine consisted of likert’s scale such as Strongly Agree, Agree, Cannot say, Disagree and Strongly Disagree. The responses to the questionnaire are collected on 5-point Likert’s scale (Appendix-I) through internet communication with the sample respondent managers. Perhaps the most important part of structured questionnaire is to ask clear and pertinent questions. Several steps have been taken to achieve this end. After spending months in developing a draft questionnaire, the questionnaire was circulated to a group of academics and tax practitioners and incorporated their
suggestions into a revised version. After getting the feedback from chartered accountants and experts on both, several changes have been made to the format of the questions and to the overall design in order to minimize biases induced by the questionnaire and maximize the response rate. Questionnaire was mailed to the Chief Financial Officers (CFOs) of all BSE 200 companies.

1.19 STATISTICAL TOOLS

Following Statistical tools have been used in research analysis in order to verify the hypotheses.

Descriptive Research: Descriptive research is a ‘fact finding’ investigation with adequate interpretation. It is more specific, as it has focus on particular aspects or the dimensions of the problem studied. It is designed to gather descriptive information and provide information for formulating more sophisticated studies; data is collected by using structured mail/questionnaires. In this method the data is amenable to an accurate, objective and if possible, quantitative assemblage for reliability and significance. It is possible to develop, valid standards of comparison. It will lend itself to verifiable procedure of collection and analysis of data. It can reveal potential relationships between variables, thus setting the stage for more elaborate investigation later. A descriptive study also aims at a classification of the range of elements comprising the subject matter of the study, like

1) Exhaustiveness and 2) Mutual Exclusiveness

The more adequate the description, the greater is the likelihood that the units derived from the description will be useful in subsequent theory building. It can also highlight important methodological aspects of data collection and interpretation. The collections of factual data increase our awareness of the relative accuracy of our measuring devices. Thus the ability to accumulate further knowledge can be significantly broadened. The descriptive studies are valuable in providing facts needed for planning social
actions programs. Further, the thesis being composed along with the analysis of primary and secondary data collected, and put to statistical significance tests to arrive at the results comparable to the text of thesis, to prove the study as positive with the conclusions derived. Necessary, applicable statistical tools are used for the analysis of data stream to present proper research results.

**Statistical Analysis**

Following statistical techniques have been employed in the present investigation.

a. Descriptive statistics
b. Independent sample ‘t’ test
c. Contingency coefficient analysis
d. Chi-Square test
e. Pearson’s product moment correlation
f. Simple regression
g. Binary logistic regression

A brief description of each statistical method is given below

**a. Descriptive statistics**

The descriptive procedure displays uni-variate summary statistics for several variables in a single table and calculates standardized values. Descriptive statistics provides general description of the sample in the form of central tendencies and measures of variability. In the present study mean values were calculated for each of the data along with standard deviation values to get an idea regarding measures of central location and scatteredness of scores. Descriptive statistics are used to describe the main features of a collection of data in quantitave terms. Descriptive statistics are distinguished from inferential statistics (or inductive statistics), in that descriptive statistics aim to quantitatively summarize a data set, rather than being used to support
inferential statements about the population that the data are thought to represent. Even when a data analysis draws its main conclusions using inductive statistical analysis, descriptive statistics are generally presented along with more formal analyses, to give the audience an overall sense of the data being analyzed. In the present study descriptive statistics are used to analyze the results of product moment correlation for return on equity (ROE) and debt for independent sector and for the total.

**b. Independent sample ‘t’ test**

The independent sample ‘t’ test procedure tests whether the mean of a single variable differs from a specified constant. In the present study independent sample “t” test was applied to verify whether the obtained mean scores under various aspects of capital structure reach the specified standard value expected.

**c. Contingency coefficient analysis**

The contingency table analysis or crosstabs procedure forms two-way and multi-way tables and provides a variety of tests and measures of association for two-way tables. The structure of the table and whether categories are ordered determine what test or measure to use. In the present study contingency table analysis was employed to see the association between returns, margins and growth for various sectors.

**d. Chi-square test**

This is a statistical test commonly used to compare observed data with data we would expect to obtain according to specific hypotheses. It is an statistical hypotheses in which the sampling distribution of the test statistic is a chi-squared distribution when the null hypotheses is true, or any in which this is asymptotically true, meaning that the sampling distribution can be made to approximate a chi-squared distribution as closely as desired by making the sample size large enough.
e. Pearson’s product moment correlation

The most familiar measure of dependence between two quantities is the Pearson product-moment correlation coefficient, or "Pearson's correlation." It is obtained by dividing the covariance of the two variables by the product of their standard deviations. Karl Pearson developed the coefficient from a similar but slightly different idea by Francis Galton. In the present study pearson correlation coefficient was employed to find out the mutual relationship between ROE and debt for independent sector and for the total, debt and return on equity for mid cap and large cap independent sector and for the total, for financial leverage and group statistics independent sector and for the total, between free cash flow and financial leverage.

f. Simple Linear Regression

Simple linear regression is the least squares estimator of a linear regression model with a single explanatory variable. In other words, simple linear regression fits a straight line through the set of n points in such a way that makes the sum of squared residuals of the model (that is, vertical distances between the points of the data set and the fitted line) as small as possible.

g. Binary Logistic Regression

In statistics, logistic regression is a type of regression analysis used for predicting the outcome of a categorical (a variable that can take on a limited number of categories) criterion variable based on one or more predictor variables. Logistic regression can be bi- or multinomial. Binomial or binary logistic regression refers to the instance in which the criterion can take on only two possible outcomes (e.g., "dead" vs. "alive", "success" vs. "failure", or "yes" vs. "no"). Binary logistic regression is a widely used statistical technique for dealing with dichotomous dependent variables.

All the statistical operations done through SPSS for windows (version 16.0).
1.20 STRUCTURE OF THE THESIS

The study has been presented through the following chapters:

Chapter 1 Introduction.

Chapter 2 Review of Literature.

Chapter 3 Capital structure practices in India – A Conceptual Analysis.

Chapter 4 Data Analysis and Interpretation.

Chapter 5 Findings, Suggestions and Conclusion.

**Chapter one** contains general background of the study, statement of the research problem and objectives and scope of the study and hypotheses developed. This chapter signifies the rationale of this study.

**Chapter two** is devoted to theoretical foundation of capital structure including review of empirical works. It is interesting to note that the empirical literature on capital structure is very vast and exhaustive at the international level and it is very much sporadic at the Indian level. Hence the review of literature has been presented under International Studies; and Indian Studies.

**Chapter three** consists of conceptual analysis on capital structure. The last few years of financial reforms have changed all this beyond recognition. Corporate finance managers today have to choose from an array of complex financial instruments; they can now price them more or less freely; and they have access (albeit limited) to global capital markets. On the other hand, they now have to deal with a whole new breed of aggressive financial intermediaries and institutional investors; they are exposed to the volatility of interest rates and exchange rates; they have to agonize over capital structure decisions and worry about their credit ratings. If they make mistakes, they face retribution from an increasingly competitive financial marketplace, and the retribution is often swift and brutal.
Chapter four consists of presentation and analysis of data with different financial variables and statistical tools. An analysis of survey of the respondents’ opinion on various aspects of capital structure management has been also presented. This chapter is very important in case of empirical study because the consistencies of the findings are solely based on empirical methodology it has employed.

Chapter five consists of the summary and major findings of this study and recommendation for further research.

These chapters are supported with relevant frequency tables and graphs, structured questionnaire and bibliography.