Chapter 6

1. Introduction

In the concluding part of the thesis it is proposed to sum up the broad observations in the following paragraphs.

Finance is the backbone of all economic activities. It is the supply of funds which regulates the activities and operations of industry. In absence of required quantum of funds hardly any programme; expansion, modernization and the like could see the light of the day and firms could optimize shareholders value. Firm’s success along with its sustainable growth therefore hinges on how efficiently finance is managed.

The finance decision is the foremost decision of the financial manager concerned with determination of best financing mix of the capital structure of the organization. It is well-recognized fact that finance is necessary for every business concern. However, finance can be raised through issue of shares, debenture/bond in domestic as well as international capital market and from the wide range of financial institutions.

Moreover, the finance is not free of cost. The suppliers of various sources of funds have a charge on the income of organization, like; dividend for shareholders, interest for bond/debenture holder, dividend /interest for non-
banking financial companies, foreign investors and so on. This charge on each source capital is known as cost of capital.

Cost of capital is regarded as one of the most important factors in the evaluation and comparison of investments to be made by the firm. Cost of capital is based on the returns expected by the providers. It reflects the level of interest rates and a premium for risks, determined by the risk profile of the business. From a firm’s perspective cost of capital is an important measure of future financial performance. It determines the acceptability of investments opportunity, providing a rate that may be used to discount the future cash flows accepted for new investments.

However, in case of Indian companies the concept of the cost of capital is to some extent has not received much attention over the years. The different survey witnessed that concept of cost of capital is misunderstood in Indian economy. Industries like chemical, fertilizer, toothpaste, diversified believed that the calculation of cost of capital is academic and impractical so, they do not consider cost of capital or optimum cost of capital as relevant for any of business decisions.

Considering the necessity an attempt was made in this treatise to examine the nature and components of capital structure, influence of capital structure decision on cost of capital, and the relationship between cost of capital and companies performance measured in terms of widely used parameters like; growth, size, profitability and liquidity. The relevant analyses pertaining to the
entire study was based on secondary data related to the companies listed in the BSE. The reasons for selecting BSE listed companies were attributed to the companies follow inform disclosures norms.

2. Objectives

The major objectives of the study were as below

i. To analyse the pattern of capital structure and to identify the determinants of capital structure of Indian industry

ii. To examine the factors affecting the financial performance of Indian industry

iii. To assess the influence of cost of capital on the performance as well as on capital structure of the firms and the industry as a whole.

3. Research Methodology

To attain the aforesaid objectives top 500 companies were selected on the basis of rank of market capitalization as on March 2007. Finally, on the basis of availability of data, 151 companies were incorporated in the study and classified under 13 industrial groups. The study covers the period of 5 years from the year 2003 to 2007. Both financial and statistical tools were employed to analyse the relevant data. The financial tools like ratio analysis and statistical tools such as average, ANOVA, correlation coefficient and multiple regressions were used. Besides, the result has been statistically tested by using t-test, F-test, and Z-test.
4. Chapterization Scheme

The main study was organized in six chapters. The 1st chapter explained the introduction of the problem, objective of the study, research methodology used, and limitation of the study. A comprehensive review of literature was undertaken in the Chapter 2. The next Chapter 3 is devoted to Capital Structure of Indian industry- An Analysis. Chapter 4: deals with Financial Performance of Corporate Sector: Size, Growth, Liquidity, Dividend, Profitability and Leverage. Chapter 5: investigated on Weighted Average Cost of Capital: It’s Implications on Financial Performance of Sample Companies and finally summary and conclusion were drawn in the Chapter 6: Epilogue.

5. Major findings of the Study

The introductory chapter of this treatise highlighted the basic tenets of the study mainly covering statement of the problems, objectives, relevant hypotheses, and research methodology in details. The subsequent chapters are basically devoted to achieving the aforesaid objectives under the well framed research methodology. Thus, following paragraphs basically recount the findings of the research investigations undertaken in the second through the sixth chapter.

5.1. Findings Chapter 2 entitled to review of literature

A comprehensive review of literature in respect of the parameters pertaining to the assessment of financial performance, determinants of capital
structure and interrelationship between cost of capital and companies performance both in the domestic and international level was carried out in the 2nd chapter. The major observations were summarized as under:

Overall Growth of the firm is positively related to leverage (Brigham Gapenski, 1988; Kakani and Reddy, 1996 and Garg and Chander Shekhar, 2002). Size is also positively related to the debt equity ratio (Titman and Wessels, 1988 and Garg and Chander Shekhar, 2002). Return on Asset (ROA) after tax is negatively related to total debt equity ratio (Brigham and Gapenski, 1988; Myers and Majluf, 1984, Ferri and Jones, 1979 and Kakani and Reddy, 1996). Brigham and Gapenski, (1988) observed Dividend payout ratio (DPR) is positively related to total debt ratio, where as Size and profitability is negatively related to debt ratio. Besides, there exists negative association between operating risk and debt ratio and the firms with risky income streams are vulnerable to fixed charge sources of finance. As a result, an inverse relationship was observed between variance of net operating earnings and leverage (Baxter, 1967). Debt Equity ratio is positively related to growth and negatively related to size (Gupta, 1969). The companies with higher operating risk showed higher debt equity ratio while the size of corporation and the industry class do not appear to be determinants of debt ratio (Toy, Stonehill, Rammers, Beekhuisen, 1974). Higher variability in return on capital (ROC) depends on the degree of financial leverage adopted by the firm. However, debt equity ratio declines with increase in ROC or vice-versa (Carelton and Siberman, 1997). The industry class was linked to the firm’s leverage and
operating leverage does influence the percentage of debt in a firm’s financial structure (Ferry and Jones, 1979). Profitability, dividend pay out ratio (DPR) and debt service capacity were found to be significant determinants of the leverage ratio (Bhat, 1980). Moreover, debt coverage ratio was found to be an important variable significantly affecting the financial structure of the firm (Venkatesan, 1983). The choice between debt and equity sources of capital for a corporate borrower is greatly influenced by the factors of taxes on corporate income, inflation, controlling interest and capital market reforms (Kotrappa, 2000). Debt to asset ratio is negatively related to both volatility of annual operating income and advertising and Research and Development expenses (Bradley, Jarroll and Kim, 2002).

The degree of financial Leverage is negatively related with ROCE and value of the firm within an industry. Mohanty 2003) found that the companies that spend a large sum of money on advertisement and Research and Development expenditure are the least levered. Jensen (1986) observed that the firms having sound track record and bottom line can manage easily debts from the market and also found a positive relationship between profitability and leverage. While, Rajan and Zingales, (1995) found existence of a reverse relation between leverage and size of the firm.

Cost of capital declines with increase in degree of financial leverage due to the tax deductibility of interest charges, (Modigliani and Miller, 1962). On the other hand in Indian context, the cost of capital is affected by the debts in capital
structure apart from its tax advantages (Sarma and Rao, 1969). A study result shows that the cost of capital of Indian firms has increased from 7.36 percent to 12.36 percent over the years and average cost of capital for all firms under the consumer goods industry was found to be highest while lowest for the firms under intermediate goods. Age of the firm, volume of retained earnings, and profitability were found to be negatively correlated (Chakroborty, 1977). In the similar vain, an association was established amongst the parameters like size, growth, business risk, DPR, ROCE, debt service capacity, degree of operating leverage of the firm (Bhat, 1980).

Cost of capital is a central concept in financial management linking both investment and financing decision. The Indian companies faced a high relative cost of capital as compared to their international counterparts (Chadha, 2003). The practicing Indian corporate managers generally prefer to borrow because of low cost of debt to the interest tax deductibility and dilution of ownership, and cumbersome procedure of raising the equity capital. As a result, 72 to 80 percent of the assets of sample companies were financed by external debt, including current liabilities (Pandey, 1985). The weighted average cost of capital of a company will fall with the increased borrowing until a point is reached where the higher cost of share and loan capital force the average cost of capital up. The overall cost of capital should be viewed only as the first step in the development of divisional and specific project's cost of capital (Brigham & Gapenski, 1988). The cost of capital must be equal to the rate of return on a project, which is
necessary to maintain the current market price of the company’s share (Srivastava, 1997). The cost of capital is playing significant role for determining the capital structure of multi National Corporation also. The multi national corporation is assumed to finance its foreign subsidiaries in such a way as to minimize its incremental weighted cost of capital (Bhalla, 2000). The firms are mainly concerned with financial flexibility and credit ratings while issuing debts and most firms have target debt-equity ratio and issue-equity to maintain that target ratio (Graham and Harvey, 2001). A project that requires specific assets would initially be financed by equity and therefore it has low debt equity ratio. Moreover, such ratio also falls significantly with regard to agency theory; the management hesitates to take financial risks by involving more debt capital in the capital structure leading thereby an increase in the portion of equity capital (Vialasuso and Minkler, 2001).

Thus, it is seen from the aforesaid analyses that all endeavors were made over the period both in the domestic and international parlance to examine the effects of capital structure on cost of capital along with the determinants of capital structure. However, no serious and systematic efforts have been made with regard to assessing the relationship between cost of capital and companies financial performance especially in Indian context. As a result, the next three consecutive chapters were devoted to examine and deliberate these issues.
5.2. Findings of Third Chapter

This chapter delved theoretical foundations of capital structure. Here we analyzed the capital structure position of Indian industry to identify most widely used sources of fund in the capital structure and also to examine whether the debt-equity ratio in various industrial sector are similar. The chapter also seeks to assess the determinants of capital structure pertaining to Indian industry. We analyzed in this respect the capital structure of Indian industries under the premises that the cost of capital would be affected with the changes in the capital structure.

Objectives

The objective of the chapter is to examine the pattern of asset financing (debt-equity mix) of Indian companies and the factors affecting capital structure decisions. More specifically, the study is focused on the following objectives.

(i). to assess the intra and inter sector differences in the debt structure among various industrial cluster in Indian context and

(ii). to examine the magnitude of influence of various factors affecting the capital structure decisions of sample companies under study.
Hypotheses framed

Hypothesis 1

H₀: Debt-equity ratios related to the various industrial sectors and the firms under study are similar.

H₁: Debt equity ratio among various industrial sectors as well as the firms in India differs significantly.

Hypothesis 2

H₀: Debt-equity ratios of firms in an industrial sector are not influenced by financial variables such as size, growth, liquidity, profitability, and dividend.

H₁: Debt equity ratios of firms in an industrial sector are influenced by the underlying financial variables.

To test the hypotheses both financial and statistical tools were used. Hypothesis 1 was tested using the t-test and the ANOVA technique. In order to test Hypothesis 2, a multiple linear regression model was fitted.

Findings of the chapter

The main findings of the theoretical analysis are outlined as under:

(i) MM’s Proposition I, explains the market value of the firm is independent on its capital structure and the value of the firm could be determined by capitalizing
expected return at a rate appropriate to its class. The MM’s Proposition II, based on the fact that the expected yield on the equity capital is equal to the pure equity return plus a premium for the financial risk which is equal to spread between pure equity return and cost of debt in the proportion of debt equity ratio. MM added corporate taxes to their model and reached the conclusion that firms should use debt capital in the capital structure. Again the III rd Proposition of MM clarified that the cut-off rate for investment purposes will be completely unaffected by the type of security issued and with corporate taxes they demonstrated that the primary benefit of debt stems from the tax deductibility of interest payments.

(ii) The Static Trade-off Theory explains that the value of the firm depends on the tax savings on interest payments which induces the firm to borrow to the margin where the present value of interest-tax shields is just offset by the value of loss to agency costs of debt and the possibility of financial distress.

(iii) Pecking Order Theory does not suggest any particular target of optimal capital structure and firms prefer internal to external financing. If the firms do require external financing they will issue the safest security first in the order of term loans, unsecured debenture, secured debenture, convertible debentures, preferences shares, convertible preferences shares, and finally in the form of new equity shares.

(iv) Combining both the trade-off and asymmetric information theories following pertinent information were obtained.

- Debt in the capital structure provides benefits because of its tax deductibility of interest, so firms should have some debt in their capital structure.
• Because of problems resulting from asymmetric information and flotation costs, low-growth firms should follow a pecking order, with capital raised first from internal sources, then from borrowings, and finally by issuing new stock. In fact, such low growth firms rarely need to external equity. High growth firms whose growth occurs primarily through increase in tangible assets should follow the same pecking order, but usually they will need to issue new stock as well as debt. High growth firms whose values consist primarily of intangible growth options may run out of internally generated cash, but they should emphasize stock rather than debt due to the severe problems that financial distress imposes on such firms.

• Because of asymmetric information, firms should maintain a reserve of borrowings capacity in order to be able to take advantage of good investment opportunities without issuing stock at low prices, and this reserve will cause the actual debt ratio to be lower than that suggested by the trade-off models.

Thus, the available theories are conspicuously silent in designing the optimum capital structure of the firm. This suggests undertaking an in-depth analysis regarding firms’ design of their capital structure using certain condition of minimizing overall cost of capital.

Findings of empirical analysis

i. The null hypothesis that the debt equity ratio of firm in an industrial sector is similar was rejected since it has been observed that the $F$-values for the selected
industrial sectors except Electricity and Automobile were found to be greater than the table values. Further a significant variation among the debt equity ratios were noticed among the firms under the industry of finance & investment, cement and IT Sector. Moreover, debt-equity ratios differ significantly across industrial sector in India as the estimated value of \( F \) is greater than table value \( (F: 7.809338 > F_{0.05}: 1.943619) \). The reasons for differences are attributed to the inherent characteristics of the business of the firm.

Thus, financing structure differs \textit{firm wise} as well as \textit{industry wise}. This implies that single jacket does not fit to all and capital structure differs in industry as well as companies due to \textit{host of several other factors}.

ii. The study shows 60 percent of the sample companies are using more equity capital than debt capital. The industry like energy, pharmaceutical, electricity, engineering and chemical prefers internal source of funds whereas the companies under finance and investments are relying on borrowed capital.

iii. The debt equity ratio of Indian industrial sectors covered in the study falls between as low as 0.295 and as high as 4.079. The lowest ratio observed in the case of IT Sector and highest in the finance and investment sector. Further, the \textit{econometric analysis}, ANOVA reveals that the \textit{growth and liquidity} are two explanatory variables emerged as significant determinant of capital structure. The regression coefficient of growth measured in terms of profit after tax is 0.196 and statistically significant at 5\% level. This suggests that growing firms (comparatively higher CAGR of PAT) involve higher amount of debt capital in the capital structure than that of less growing firms which depends on equity.
sources only since they have no proven track record to attract capital from the market.

iv. The theoretical foundations of capital structure decisions are undoubtedly useful, but its practical application, especially country like India suffers from serious limitations.

In India, legal provisions play a significant role in shaping the capital structure of the firms. Important ones are creditor rights, maintenance of legal reserves and law enforcement. Some studies have shown that debt structure is also determined by how rights are enforced by creditors. Debentures in India are, by definition, secured loans having a floating charge on all the aspect of the company compared to the working capital finance by commercial bank, which generally have an inferior charge on assets. Therefore, it becomes important to consider these factors before choosing between short term and long-term debts or choosing debts at all. The companies Act 1956, requires the companies to maintain reserve before distributing profits and also there are provisions, which impose restrictions on the borrowings by the Board of Directors of a company beyond certain limits.

It is therefore argued that the financial manager must consider the factors and carefully analyze sector specific attributes before attempting to achieve the so-called optimal capital structure, as they are vital in the Indian context. It has been found that in some Indian firms the capital structure is too rigid to offer any scope for adjustment. Despite, designing appropriate capital structure of the firm it is necessitated to sustain value of the firm in the hyper competitive corporate environment.
5.3. Findings of Chapter 4

This chapter is devoted to study the overall performance of Indian industry (sample companies) on the basis of accepted financial tools. In this respect the study seeks to examine the relationship among the financial parameters representing the financial performance of the firm; Size, Growth, Liquidity, Dividend, Profitability and Leverage.

Hypotheses

Following hypotheses were adopted to attain aforesaid objectives

\(H_0:\) There is no relationship among the explanatory variables representing financial performance of the firm \((r=0)\).

\(H_1:\) There exists relationship amongst the explanatory variables indicating financial performance \((r \neq 0)\).

*The parameters like Growth of the Business, Profitability of the Firm, Liquidity, Dividend pay out, leverage and size of the business* are used as determinants of financial performance. The statistical tool like analysis of correlation coefficient is applied to test the hypothesis.

Findings

The main findings of the chapter were summarized as under:
• Leverage (debt-equity ratio) is positively and significantly related to liquidity (current ratio) ($r=0.459$). In other words, the sample industries with high credit worthiness are generally using outside fund for the sustainable growth of the business.

• Liquidity is negatively and significantly related to the size expressed in terms of sales volume ($r=-0.569$) which implies comparatively larger companies of India are keeping low amount of liquid assets in hand and smaller companies are keeping large amount of funds in hand in the form of liquid assets.

• The companies with small in size on the basis of sales and capital employed are enjoying comparatively higher market share. The relationship conveys that growth and size is negatively and linearly related and fail to acknowledge the logic behind the fact that small firm can not grow.

• The profitability is positively and linearly related with the size of companies ($r=0.248$). This is because of marketing power, technology and financial factors. The larger firms tend to have larger market share and the greater profitability.

• Growing companies are distributing less amount of dividend to the shareholders as compared to the less growing companies. The companies relying on internal source of fund are also distributing more amount of dividend.

• Growth of market capitalization of energy ($r=-0.612$) and construction companies ($r=-0.581$) is negatively and significantly related with sales; implying that comparatively larger companies like Reliance Industries Ltd, Oil & Natural Gas Corporation Ltd, Indian Oil Corporation Ltd, DLF Ltd, Unitech Ltd, Jaiprokash
Associates Ltd, Hindustan Construction Company Ltd, have witnessed slower growth over the years. This may be because of the reasons that larger firms have slower chances of auxiliary growth or inability to cope up with the changes in the market power and its complex organizational structure.

- In the IT Sector, the correlation coefficient between leverage and growth of profit is positive (0.700) which signifies the companies based on external source of funds are comparatively growing faster in respect of profit.

- Pharmaceutical companies are growing with the increase of size. Again size of the companies is positively and significantly related with profitability (r=0.537). The relationship strongly suggests that the large pharmaceutical companies such as Sun Pharmaceuticals Industries Ltd, Cipla Ltd, Ranbaxy Laboratories Ltd, Dr Reddy’s Laboratories Ltd, Lupin Ltd, and Wockhardt Ltd are growing because of making more profit. On the other hand a significantly negative relation between leverage and dividend (r= -0.559) has been seen signifying that the companies with internal source of funds are distributing maximum amount of dividend among the shareholders particularly in case of pharmaceutical sector.

- The cement companies’ profitability is not significantly related with size as well as growth of the companies implying that no relationship has been confirmed in between growth, profitability and size of the companies.

- In electricity sector the return on capital (ROC) and current ratio is negatively related (r=-0.637) which implies liquidity has reverse effect on profitability. On the other hand, the companies such as Voltamp Transformers Ltd, Havells India Ltd,
Bharat Bijlee Ltd, Crompton Greves Ltd, Bharat Heavy Electronics Ltd, and Siemens Ltd have utilized liquid assets efficiently.

- The companies with higher bottom line under engineering sector particularly Alfa-Laval (India) Ltd, Cummins India Ltd, Alstom Projects India Ltd, and Reliance Industrial Infrastructure Ltd are distributing maximum amount of dividend among the shareholders. Growth of profit (-.718) and growth of market capitalization (-.750) is negatively and significantly related with liquidity implying that the companies with lesser degree of profitability are expediting the pace of liquidity and growing faster in the market.

- The companies under steel sector revealed that there is positive relationship between profitability and size of the companies. Companies' profitability is positively and statistically significantly associated with sales volume, capital employed or enterprise value of the respective companies ($r= .598; .537; .738$). The firms under the iron and steel industry like Steel Authority of India Ltd, Tata Steel Ltd, Jindal Steel & Power Ltd, Maharashtra Seamless Ltd, Monnet Ispat Energy Ltd and Ratnamani Metals & Tube Ltd are generating significant amount of profits due to their operational as well as financial efficiency.

- No significant relationship was found in between the explanatory variables from the sector of the chemical, personal care, and diversified.

- In finance & investment companies, it was observed that, size is linearly and positively related with the liquidity (.639) implying that large finance companies such as Infrastructure Development Finance Company Ltd, Shriram Transport
Finance Company Ltd, and Sundaram Finance Ltd are keeping more amounts of funds in form of liquid assets. Further growth of market capitalization is significantly and positively related with ROC \((r = 0.678)\), implying that with the increase of profit the growth of market capitalization in the finance companies is enhancing. However, dividend is not significantly associated with liquidity, profitability, size of the companies. This implies that the companies which cater the needs of individual’s requirement remain attractive irrespective of their size. Thus the operational efficiency of the company directs the pace of growth of the company.

- Finally, it is seen that the financial performance varies from industry to industry and even company to company belonging to same industrial group. In some cases size is positively related to growth, profitability etc, where as in other cases it might be reverse. The relationship such as size and growth; growth and profitability; liquidity and profitability etc, are not fixed as all the determinants of performance have not been influenced by only one factor rather depends on a number of quantifiable as well as non-quantifiable factors. Thus it is concluded that performance of industry is dependent on host of factors; both economic and non economic i.e., market forces and also its nature of function. This suggests that financial managers should consider all those factors ensuring share holders value and finalize the financial strategy accordingly.
5.4. Findings of Chapter 5

The term *weighted average cost of capital* is the combined cost of the specific costs associated with specific source of financing. The cost of different source of financing represents the components of the combined cost. This chapter was devoted to assess the influence of cost of capital on the performance as well as nature and type of capital structure of the firms and the industry as a whole.

In this context we considered following hypotheses:

- Specific costs and overall cost of capital of different companies in an industry are similar i.e. \( r=0 \),
- There is no significant influence of financing decision on overall cost of capital (WACC)
- *Average Cost of Capital* (WACC) is not influenced by the performance of the company measured in terms of *size of companies, growth of companies, profitability, liquidity, and dividend payout of the firm*.

*To accomplish the aforesaid hypotheses we used* the statistical tools like simple average, ANOVA, *analysis of correlation coefficients* (r). Besides multiple regressions equation was fitted to identify the *influence of different explanatory variables on average cost of capital*. 
Findings of the chapter

- The observed F-values for all the selected industrial sectors were found to be greater than the table values except construction industry. Therefore the null hypothesis that the WACC of firm in an industrial sector are similar was rejected. This implies that over all cost of capital of different companies are varying with each other due to variation in nature of industry and different components of cost of capital are not similar.

- The correlation coefficient between WACC and size (0.366), leverage (-.320), and profitability (-.355), are found to be statistically significant at 5% level. This implies that size, leverage and profitability are affected by overall Cost of capital of the companies.

- In IT, Construction, Cement, Auto, personal Care and Finance & Investment sector profitability is found to be positively related with WACC. The reasons of such relationship can be attributed to the growth of EBIT of the companies irrespective of growth of capital structure, efficient utilization of capital to expedite the pace of growth of bottom-line. Thus growing firms and firms with perennial demand do not bother much about WACC; rather they concentrate on expanding the business opportunities.

- The econometric analysis reveals that, leverage becomes one of the major influential factors of the cost of capital. Except Construction, Electricity, Engineering, Steel, Auto, Personal Care and Financial Service, it has been seen that leverage is negatively related to the cost of capital and statistically significant.
It signifies the cost of capital has declined with significant increase of debt capital in the capital structure. The sectors like Construction, Electricity, Steel, Auto group are found to be highly geared company even in some cases borrowed capital are double to equity capital in the capital structure. On the other hand, the sectors like Engineering and personal care are maintaining low level of borrowed capital in the capital structure showing no affect on cost of capital. It implies capital structure decision plays an important role for minimizing overall cost of capital of the companies. But the companies must have to maintain optimum level of capital structure (debt-equity mix) based on its nature and risk zone where it operates. The statistically significant value of “F” at 5% level of significance indicates the regression equation is significant. While, value of $R^2$ indicates the extents of influence of independent variables on dependent variables, WACC. In aggregate term, it is observed that regression is significant. However, independent variables explain variation only 45% ($R^2 = .452$) of dependent variable. Thus WACC is not significantly affected by financial performance of the firms as far as sample is concerned. Only, size ($\beta = 3.65$) has positive while leverage ($\beta = -0.108$) and profitability ($\beta = -0.490$) has negative impact on WACC. However, such interpretation differs in case of individual sector. Thus WACC is firms specific. The factors mainly qualitative are; business risk, financial risk, management risks appetite and fiscal policy as a whole. Similar views were expressed by (K.B. Hari: 2006) that Indian large firms are not using resources effectively in comparison to their smaller counterparts even not taking advantage of cheaper funds available over the years.
• In aggregate terms, relationship between size of the companies and WACC ($\beta = 3.65$) indicates with the increase of size of the companies cost of capital is also increasing as far our sample is concerned. The statistical result shows that size of the companies is not significantly influenced by the overall cost of capital of the companies while analyzing the cause-effect relationship within industrial group. The regression coefficient value of size of the companies under the sample industrial group excluding construction, pharmaceuticals, chemical and diversified signifies that with the increase of size the company’s cost of capital are declining. Where as, in case of the industry like construction, pharmaceuticals, chemical and diversified group a positive relationship has been seen between WACC and size of the companies. This implies that the companies under these sectors do not give attention much on the increasing trend of WACC.

• As far as sample is concerned no significant relationship has been observed between WACC and growth of the companies since the regression coefficient value of growth is not statistically significant. The results in the diversified sector showed that the correlation coefficient between growth and WACC is -.511 and found to be statistically significant. Further, the beta ($\beta$) value (-.576) found to be statistically significant implying, there is negative impact of growth of companies on WACC i.e. with one unit of change of growth component the cost of capital (WACC) will be declined by 0.576 unit.

• The regression analysis indicates that the beta ($\beta$) value of dividend is negative in the case of IT sector ($\beta = -0.581$) and positive in case of financial
service sector ($\beta = .601$). This implies that dividend has emerged as significant factor in the cost of capital.

- The regression coefficient between liquidity and WACC is found to be negative and statistically significant in case of Energy ($\beta = -0.614$) and Cement ($\beta = -0.408$). This implies that highly liquid companies are procuring the funds by incurring less amount of financial cost because of their high degree of solvency. On the other hand less risky companies in terms of liquidity are spending less amount of money for mobilizing the capital for their survival and growth. It is theoretically true that the investors generally prefer to invest their funds in less risky companies.

- The aggregate result suggests that there exists a relationship between WACC and profitability of the companies. The profitability of the companies ($\beta = -0.490$) has negative impact on overall cost of capital and the relationship is statistically significant at 5% level. Furthermore, the value of $F = 1.334$ statistically significant at 5% level implying that the regression equation is also significant. The relationship shows that as far as sample is concerned, with the increase of profitability of the companies, the overall cost of capital will automatically fall. The similar statistically significant and negative influence was observed between the cost of capital and profitability in case of energy ($\beta = -0.267$), electricity ($\beta = -0.669$), engineering ($\beta = -0.443$) and chemical ($\beta = -0.987$) respectively.

- The econometric analysis exhibited in Table No-5.10, clearly supposed the Modigliani Miller’s view that the cost of capital will be comparatively less when
tax factor is taken into consideration. The beta value of debt-equity ratio (leverage) irrespective of nature of industries is found to be negative. This implies that the overall cost of capital has declined considerably with the increase of debt capital in the capital structure under the corporate tax regime.

Thus, it has been observed that,

a) Capital structure of Indian companies is changing over the years and even after liberalization of the economy, the companies are more or less depending on internal source of funds.

b) The liquidity (Current Ratio) and growth measured in terms of growth rate of PAT and Market Capitalization, are found to be major determinants of capital structure.

c) The relationship among the variables; size, growth, liquidity, profitability and dividend payout varies from industry to industry.

d) The overall cost of capital is affected by the components (debt, equity, preference share, retained earnings) of capital structure of Indian industries. This has necessitated the firm to attain optimum level of capital structure. The corporate finance executive should give due attention for attaining optimum level of capital structure for sustainable growth of the firm. The optimum level of capital structure depends on nature of each industry.

e) The change of cost of capital affects the company’s profitability position. Again, the higher cost of capital adversely affects the profitability position of the companies. The big companies should therefore give proper emphasize on this aspect while procuring the funds.
Finally, there are insufficient evidences to deny the fact that the cost of capital has no relationship or no affect on companies’ performance like companies growth, liquidity, dividend pay out although the relationship is industry specific. Similarly, cost of capital is not only influenced by only capital structure decision but also influenced by host of factors depending on nature of business as well business environment.

6. Contribution / Practical utility of the study

The present study as a whole is a fact finding research on the interrelationship study of selected companies traded in Bombay Stock Exchange with reference to cost of capital and companies performance. The study examined the nature of capital structure of Indian industry and influence of companies’ performance on cost of capital. From the present practices, it has seen that the companies executive of India are not considering the fact that cost of capital is one of the factor for improving the financial strength of the concern. Here, the study established that cost of capital is important factor and is influenced by companies’ performance although the relationship between the cost of capital and companies performance is industry specific. Therefore, the corporate sector while taking up policy decision particularly in respect of capital structure decision can use the findings of the study with necessary situational modifications. Management can use the findings of the study to remove the laxities in financial area and improve the financial position of the concern. The government can use the findings of the study and give proper direction to the industrial sector to
maintain sustainable growth of the companies. The financial institution and banks while deploying their resources can use the findings and assess the profitability and financial strength of the concerned unit and act accordingly. The present study is an addition to the existing literature on cost of capital and its influential factor and the scholars who are working in this area will be immensely benefited by it.

7. Further extension of the study/ Future direction for research

Every attempt has been made to make the study comprehensive but due to the lack of time and resources, there exists certain gaps in the present study. Here further work may be undertaken to bridge the gap and to enhance the scope of analysis. The sample size for the study is limited to 151 companies and classified into only 13 industrial groups. The size of the sample can further be extended. The data for the purpose of the analysis used for only five years, which may be extended. This will substantiate and enhance the analysis. This in turn, will help in deriving the conclusion. Further the present study only uses ratio analysis and statistical tools particularly correlation and regression analysis. In order to get more reliable result other statistical model or mathematical tools can be used. In the study we used only size, growth, liquidity, profitability, dividend and leverage as measurement of financial performance. In this respect, other determinants of financial performance like risk of the companies, business models, and so on can be added and measurement of such financial determinants can be done in alternative way also. We have used past data to measure growth of the companies.
But possibly past data are not appropriate to project the future growth and uncertainty. Distant studies incorporating superior measurement of growth and risk variables pertaining to the specific costs and average cost of capital along with other parameters representing financial performance of firms are awaited.