CHAPTER VII
SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

A detailed analysis of the operating performance and overall financial soundness, capital structure, and cost of capital and growth of 60 pharmaceutical companies has been made in the present study which is purely based on the secondary data which were collected from all sample companies and necessary information was also taken by interaction with the top officials of the companies in order to verify the same with the balance sheets and income statements of the companies. The 60 pharmaceutical companies are divided into three categories such as small, medium and large on the basis of current sales turnover. The tools like summary statistics (Mean, Standard Deviation, Coefficient of Variation, Skewness and Kurtosis), Analysis of Variance, Multivariate Discriminate Analysis, Corelation analysis, Friendman’s Non-Paramateric test, and Growth rates were used to analyse the data collected. The study has been categorized into seven chapters.

Analysis of Health of Pharmaceutical Companies

The factors like GPR, NPR, ROCE, ROI, CR, DER, ICR Debt to Total asset and Z score are analysed to examine and evaluate the financial health in selected pharmaceutical companies

Operating Performance and Z Score analysis:

Profitability and liquidity aspects of sixty pharmaceutical companies were analysed with the help of ratios like gross profit ratio, net profit ratio, return on investment, return on net worth, and current ratio which is helpful in assessing the corporate excellence, credit worthiness, earning capacity and managerial efficiency of the pharmaceutical companies.

From the analysis, it is observed that the gross loss reported by Ambalal Sarabhai Enterprises Ltd., Caplin Point Laboratories Ltd., Morepen Laboratories, and Zenotech Laboratories Ltd from the large category is due to very high cost of production. It also shows the inefficient utilization of available resources. It is suggested that those companies must try to improve their performance by increasing their sales so that they in turn raise the gross profit. Almost all the companies in small and medium category companies show a gross profit for the entire study period. Hence, their performance is better than large category companies. The companies namely Wyeth Pharmaceuticals
from small category, Divis Laboratories Ltd from medium category, and Jupiter Pharmaceuticals Ltd from large category companies show the highest Gross Profit Ratio which is a signal that the management is very efficient and also it indicates very low cost of production with increasing turnover. The year wise analysis of gross profit ratio of small, medium and large category indicates a very high gross profit ratio. It is a good indication regarding the profitability of the companies and also efficiency of the management. It is observed that there is no net loss in small and medium category companies for the entire study period. So, Comparing with large category companies, the position of small and medium category companies with regard to profitability in the all years are very good. ANOVA showed that there is significant difference in the GPR between groups, the large, medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the GPR is found not differed significantly within the time period as the F value is less than the table value.

From the analysis, It is observed that the net loss reported by Ambalal Sarabhai Enterprises Ltd., Caplin Point Laboratories Ltd., Morepen Laboratories, and Zenotech Laboratories Ltd from the large category is due to decrease in sales. Almost all the companies in small and medium category companies show a net profit for the entire study period. Hence, their performance is better than large category companies. The companies namely Plethico Pharmaceuticals Ltd., Piramal Healthcare and Jupiter Pharmaceuticals Ltd from small, medium and large category companies respectively shows the highest net profit ratio which is a signal that the operating as well as non-operating expenses are lower with increasing turnover.

It is observed that there is no net loss in small and medium category companies for the entire study period. So, Comparing with large category companies, the position of small and medium category companies with regard to profitability is very good. ANOVA showed that there is significant difference in the NPR between groups, the large, medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the NPR is found not differed significantly within the time period as the F value is less than the table value.
It is indicated from the above analysis that Piramal Healthcare from Medium category and Ambalal Sarabhai Enterprises Ltd., Morepen Laboratories, Zenith Pharmaceuticals and Zenotech Laboratories Ltd. from Large category indicated negative returns. It indicates that the operating assets are not utilized effectively in the above companies. AstraZeneca Pharma from small category, Glaxo SmithKline Pharmaceuticals Ltd. from medium category and Hester Pharmaceuticals Ltd from large category reported higher return on investment when compared to other companies and it shows the effective utilization of the total assets. It is evident from the table that Return on Investment is found positive throughout the study period in small, medium and large category companies which is an indication that the earnings were available to investors in all the years and effectively utilized the total assets of the companies.

The years 2004 and 2007 from small category, 2003 from medium category and 2005 from large category indicated very high returns on Investment. ANOVA showed that there is significant difference in the ROI between groups, the large, medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the ROI is found not differed significantly within the time period as the F value is less than the table value.

It is indicated that Ranbaxy Laboratories Ltd. from medium category and Ambalal Sarabhai Enterprises Ltd., Caplin Point Laboratories Ltd., Morepen Laboratories, and Zenotech Laboratories Ltd. from large category indicated negative returns. It shows that the equity earnings are not available to investors in those companies. All the companies in the small category shows positive returns which is an indication that the equity funds are utilized efficiently compared to companies in other categories. Strides Arcolab Ltd. from small category, Ranbaxy Laboratories Ltd. from medium category and Morepen Laboratories from large category shows very low returns. It indicates that very low earnings available to the investors in those companies and as such assumes that no efficient management in utilizing its equity funds.

The year 2002 and 2003 from large category showed a negative return. It is an indication that the equity earnings are not available to the investors in those years. The years 2009 from small category, and 2011 from medium category recorded very low returns which are an indication that in those years very low earnings were available to the
investors. Equity funds are not efficiently utilized by the management. ANOVA showed that that there is significant difference in the RONW between groups, the large, and medium and small companies as the F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the ROE is found not differed significantly within the time period as the F value is below the table value.

From the analysis, it is observed that the Novartis India Limited from small category, Sun Pharma from medium category and Zenith Pharmaceuticals Ltd. from large category have a very high current ratio. Ratio of all these companies is above the standard parameter. It may be due to the presence of idle assets or due to over capitalization which will decrease the profitability of the company. Among the sample companies selected, 3 companies are satisfying the standard and the ratio of Caplin Point Laboratories Ltd. was very below the commonly accepted parameter. It is observed that all the years’ current ratio is more or less in the same level. Only a few companies in large category have recorded a high current ratio which is an indication of the presence of idle assets or over capitalization during the study period and it will affect the profitability of the companies. It may also be due to the failure to collect the receivables on time.

So, comparing all the three categories year wise, it is concluded that position of all the three categories are more or less satisfactory with a few exceptions in large category companies. ANOVA showed that that there is no significant difference in the CR between groups, the large , medium and small companies as F value is less than the table value. Regarding the variation within the period under study 2002 to 2011, the CR is found not differed significantly within the time period as the F value is less than the table value.

It is seen that the correlation between the explanatory variables for small companies are significant and positive. It is also seen that all the explanatory variables are significant and positively correlated with the dependent variable compared to medium and large categories of companies.

The analysis of Z score showed that Z score of Piramal Healthcare and Morepen Laboratories is 2.07 and 1.83 respectively, which falls under grey zone. The management has to be little watchful about the potential growth. Under the small category, Z score of nine companies are above the average Z score which is 11.26 and under medium
category, nine companies’ Z score is above the average Z score which is 15.39. In the large category also Z score of nine companies are above the average Z score which is 15.12. Even though Z score of the rest 11 companies under small, medium and large are below the average, their health is very safe as they are above the cut off level. It is observed that from the table that many companies are in the healthy zone. Only two companies, one from medium and one from large, are in grey zone and they have to study their performance a little more in depth. In this situation, it can conclude that the overall financial health of companies is in a very safe zone.

**Capital Structure Analysis:**

The capital structure is how a firm finances its overall operations and growth by using different sources of funds. It refers to the percentage of capital at work in a business by type. Each form of capital whether it is equity capital or debt capital, 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. Analysis of capital structure of all the sample companies is studied to identify the relative share of each component of capital. Category wise analysis of capital structure is also shared. In addition to this, long term solvency position of the companies in three categories are computed and analyzed. The key indicator of balance sheet strength is the company’s reasonable proportional use of debt and equity to support its assets. A healthy capital structure is very positive sign of investment quality.

The analysis of capital structure reveals clearly that role of preference share capital as a source of finance in all the three categories of companies is insignificant. Small and medium sized companies indicate that there is high dependence on internally generated funds. Equity share capital and shareholders reserve contribute as a major source of finance in most of the companies in all the three categories. The companies namely Hikal in small category, Piramal Healthcare in medium category and Wanbury in large category shows a high utilization of long term debts in their capital structure. ANOVA indicated that there exists significant difference among the three categories of companies with respect to the proportion of equity share capital, shareholders reserve and long term debts.
It is observed that the lenders have contributed more funds than owners in companies like Hikal Pharmaceuticals Ltd., Strides Arcolab Ltd., and Panacea Biotech from small category, Orchid Chemicals & Pharmaceuticals Ltd. from medium category and Morepen Laboratories and Wanbury Ltd, from large category companies. If a firm has excessive debt, it will experience difficulty in locating additional debt financing. The firm will be able to borrow only high interest rates. It is suggested that the above companies must try to reduce the excessive use of debt to pay interest on debt capital.

The debt equity ratio is very low in the case of Wyeth Pharmaceuticals, Novartis India Limited from small category, Abbott India Ltd., and Sanofi from medium category companies, Zenith Pharmaceuticals Ltd., Fulford (India) Ltd. from large category which indicates the failure to use relatively lower cost borrowed funds to raise the return earned on the common stock. It is observed that the lenders have contributed more funds than owners in the years 2006 from small category, 2009 from medium category and 2007 from large category companies. If a firm has excessive debt, it will experience difficulty in locating additional debt financing. The firm will be able to borrow only at high interest rates. ANOVA showed that that there is no significant difference in the DER between groups, the large, medium and small companies as F value is smaller than the table value. Regarding the variation within the period under study 2002 to 2011, the DER is found not differed significantly within the time period as the F value is less than the table value.

From the analysis, it is observed that the Abbott India Ltd. from small category, Pfizer in medium category and Fulford (India) Ltd from large category shows a very high interest coverage ratio and reveals that these companies are very conservative in using the debt and is not using the credit to the best advantage of shareholders. Parenteral Drugs (India) Ltd from small category, Orchid Chemicals & Pharmaceuticals Ltd from medium category and Morepen Laboratories from large category shows a very low interest coverage ratio and might be due excessive use of debt or inefficient operations. These companies must make efforts to improve their efficiency in operations and they can retire debt to have a comfortable interest coverage ratio. It is observed that the years 2011 from small category, 2011 from medium category and 2010 from large category indicates a very high interest coverage ratio. In the above periods, the
companies were very conservative in using the debt and are not using the credit to the best advantage of shareholders of the company. ANOVA showed that that there is significant difference in the ICR between groups, the large, and medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the ICR is found not differed significantly within the time period as the F value is less than the table value.

From the analysis it is observed that Hikal Pharma Ltd from small category, Orchid Chemicals & Pharmaceuticals Ltd. in medium category and Caplin Point Laboratories Ltd. from large category shows a very high Liability to Asset Ratio and reveals that these companies are depending more on debt to grow their business. Wyeth Pharmaceuticals from small category, Abbott India Ltd. from medium category and Zenith Pharmaceuticals Ltd. from large category shows a very low Liability to Asset Ratio which is an indication that the companies are progressively becoming less dependent on debt to grow their business. The other companies indicate moderate liability to asset ratio and hence the long term solvency positions of these companies are satisfactory. Prudent use of debt boost return on equity. From the year wise analysis it is observed that the years 2009 from small category, 2006 from medium category and 2007 from large category indicates a very high Liability to Asset Ratio. In the above periods, the companies was depending more on debt for their business growth. The year 2004 from small category, 2002 from medium category and 2011 from large category indicates a very less liability to asset ratio which is an indication that the companies are becoming less dependent on debt for their growth. ANOVA showed that that there is significant difference in the LAR between groups, the large, and medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the LAR is found not differed significantly within the time period as the F value is less than the table value.

Friedman’s Non-parametric test indicated that there is no significant difference in mean debt equity ratio during the study period among the small, medium and large companies. There existed an inverse relationship between the debt equity ratio and capital employed due to greater extent of debt in the capital and vice versa. It also indicates that
there is significant difference in mean interest coverage ratio and liability to asset ratio during the study period among the small, medium and large companies.

**Cost of Capital Analysis:**

From the analysis, it is observed that Strides Arcolab Ltd from small category, Ranbaxy Laboratories Ltd from medium category and Morepen Laboratories form large category shows a low average cost of equity. This shows that the company’s ability to mobilize cheaper sources of equity than the other companies. Ranbaxy Laboratories Ltd, Caplin Point Laboratories Ltd., Morepen Laboratories and Zenotech Laboratories Ltd. indicate a negative cost of equity due to fluctuation in earnings per share. It is observed that Claris Life Sciences Ltd. from small category, Piramal Healthcare from medium category and Alembic Pharmaceuticals from large category indicate high cost of equity due to large portion of funds obtained from equity source in the capital structure of these companies. It is suggested that the companies in three categories should try to minimize the cost of equity. It is also observed that the year wise analysis of cost of equity revealed that the companies in large category show low cost of equity during the study period when compared to other two categories. ANOVA indicates that there exists significant difference in cost of equity among the three categories of companies.

It is observed that cost of debt analysis in Glenmark Pharmaceuticals Ltd from small category, Ranbaxy Laboratories Ltd. from medium category and Ambalal Sarabhai Enterprises Ltd. from large category shows a high cost of debt. But most of the companies under small, medium and large category show a satisfactory cost of debt. It is also observed that the year wise analysis of companies under large category indicated a satisfactory cost of debt throughout the study period. But the cost of debt, company wise and year wise analysis, show fluctuating trend in all the three categories which is due to fluctuations in the market conditions. ANOVA indicates that there exists significant difference in the Cost of Debt among the three categories of companies. Regarding the variation within the period under study 2002 to 2011, the Cost of Debt is found not differed significantly within the time period.

It is observed from the analysis of weighted average cost of capital of small, medium and large category companies that there are ten companies each below the mean
weighted average cost of capital in small, medium and large category companies which indicate high proportion of debts in their capital structure. The other rest of the companies under the entire category mainly depend on internally generated funds and equity share capital. It is suggested that most of the companies should try to use the maximum amount of debt to increase the return on equity through earnings per share. It is based on the overall weighted average cost of capital that the financial decisions are based. Debt should be used to an extent because of its tax advantage also. The management has to bear in mind that they have to maximize the value of the firm and to minimize the weighted average cost of capital while framing or determining the optimal capital structure for the firm. ANOVA showed that there exists significant difference in the Weighted Average Cost of Capital between groups, the large, medium and small companies as F value is not less than the table value. Regarding the variation within the period under study 2002 to 2011, the Weighted Average Cost of Capital is found differed significantly within the time period as the F value is also not less than the table value.

Analysis of Growth of Pharmaceutical Companies:

The growth of the selected pharmaceutical companies is evaluated using compound annual growth rate, sustainable growth rate and internal growth rate.

Compound Annual Growth Rate:

The analysis of CAGR shows that 8 companies from small category, 8 companies from medium category and 4 companies from large category recorded low growth rate in net sales which is due to decrease in sales in some of the years during the study period. It is suggested that these companies try to increase the sales. It is observed that the negative growth rate is indicated by 3 companies from large category due to decrease in net profit and net loss incurred in few years. It is suggested to improve their operating efficiency to avoid loss and to improve their profitability position. It is inferred that the growth rate of net worth in one company from small category, two companies from medium category and ten companies from large category indicate a low growth rate in net worth. It is due to low reserves and surplus in few years during the period of study. One company from small category, one company from medium category and eight
companies from large category show a low growth rate in total assets. Small companies are relatively better than medium and large based on the growth rate in net profit, net worth and total asset and large companies are better than the other two based on the growth rate in net sales.

**Sustainable Growth Rate:**

From the analysis, it is observed that among the 20 sample companies selected under small category, the lowest Sustainable growth rate is found in Panacea Biotech and the highest average sustainable growth rate is found in Plethico Pharmaceuticals Ltd. Among the twenty sample companies, fourteen companies have growth rates more than the overall mean. Out of 20 Companies selected under medium category the lowest Sustainable growth rate is found in Sterling Biotech Ltd and the highest average sustainable growth rate is found in Piramal Healthcare. Among the twenty sample companies, seventeen companies have growth rates more than the overall mean. Out of the 20 sample companies selected under large category the lowest Sustainable growth rate is found in Gufic BioSciences Ltd and the highest average sustainable growth rate is found in Morepen Laboratories. Among the twenty sample companies, thirteen companies have growth rates more than the overall mean.

The year wise analysis of SGR of small category companies reveals that the lowest average Sustainable Growth is in the year of 2011 and the highest average Sustainable Growth is in the year 2009. During the study period, the average Sustainable Growth in the years 2004, 2005, 2006, 2008 and 2009 are greater than the overall mean. The year wise analysis of medium category companies’ show that the lowest average Sustainable Growth is in the year of 2011 and the highest average Sustainable Growth is in the year 2004. During the study period, the average Sustainable Growth in the years 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009 are greater than the overall mean. Under the large category companies, the year wise analysis of SGR show that the lowest average Sustainable Growth is in the year of 2002 and the highest average Sustainable Growth is in the year 2008.

During the study period, the average Sustainable Growth in the years 2004, 2005 and 2008 are greater than the overall mean. ANOVA showed that there is no significant difference in the SGR between groups, the large, medium and small
companies as F value is smaller than the table value. Regarding the variation within the period under study 2002 to 2011, the SGR is found not differed significantly within the time period as the F value is less than the table value. From the above analysis, the businesses have substantial financial capacity for growth and the core challenge for the management will be to use this capability in a strategic and a sustainable way. There are certain ways or combinations of those ways which can be adopted by companies who want to grow beyond the sustainable growth rate of their business like:

- a) use increased retained earnings
- b) reduce expenses
- c) increase debt
- d) make investment on equity
- e) increase sales generated by existing assets
- f) raise prices
- g) increase operating efficiency

**Internal Growth Rate:**

From the analysis, it is observed that among the 20 sample companies selected under small category, the internal growth of 7 companies namely AstraZeneca Pharma, Granules India Ltd., Ind-Swift Ltd., Parenteral Drugs (India) Ltd., Hikal Pharma Ltd, Pfizer, and Unichem Laboratories Ltd. have average Internal Growth above the overall mean. Out of 20 Companies selected under medium category, 8 companies namely Abbott India Ltd., Biocon Pharmaceuticals, Divis Laboratories Ltd., Ipca Laboratories Ltd., Piramal Healthcare, Sanofi, Torrent and Wockhardt have average Internal Growth above the overall mean. Under the large category, among the 20 sample companies selected, 11 companies namely Albert Pharmaceuticals, Astec Life Sciences Ltd., Caplin Point Laboratories Ltd., Fulford (India) Ltd., Gufic BioSciences Ltd., Gujarat Terce Laboratories Ltd., Hester Pharmaceuticals Ltd., Jenburkt Pharmaceuticals Ltd., NutraPlus India Ltd., Venus Pharmaceuticals and Zyden Gentec Ltd. have an average Internal Growth above the overall mean which is an indication that the growth from general business operations in those companies can continue to fund and grow the company. Those companies have the ability to go for business expansion either by increasing overall customer base, increased output per customer or representative, new
sales or any combination of the above. During the study period, the average Internal Growth in the years 2008, 2009, 2010 and 2011 are greater than the overall mean under small category and under medium category, the average Internal Growth in 2004, 2005, 2007 and 2009 are greater than the overall mean. During the study period, the average Internal Growth in the years 2006, 2007, 2008, 2009, 2010 and 2011 are greater than the overall mean for those companies under large category. ANOVA showed that there is significant difference in the internal growth rate between groups, the large, medium and small companies as F value is greater than the table value. Regarding the variation within the period under study 2002 to 2011, the internal growth rate is found not differed significantly within the time period as the F value is less than the table value.

From the findings derived from the above study, it is suggested that companies which were reported loss must try to improve their performance by increasing sales or reducing their cost of revenue. They must also try to reduce their operating and non-operating expenses. Companies should utilise the operating assets effectively in order to overcome the negative returns. Companies before fixing the criteria for capital structure should examine critically the assumptions underlying the firm’s financial policies. Invoice operating managers in financial policy discussions. Relay on long term market relationship and to mitigate potential agency costs. Companies under grey zone should carry out their total actions at a fast pace. It is also an indication that the responds is very slow and that also has to be improved. Companies should take necessary actions seeing the presence of idle assets or over capitalization which will in turn reduce their profits. Companies should make efforts to improve their efficiency in operations and try to retire their debts on time to have a comfortable interest coverage ratio. Companies should try to use the maximum amount of debt to increase the return on equity through earnings per share.

**Conclusion:**

After analyzing the three categories of pharmaceutical companies based on health and growth, it may be concluded that the profitability in terms of gross profit and net profit ratio is better in small and medium category companies compared to large category companies. The small and medium category has performed better in terms of return on
investment and return on networth. The liquidity position of the large category is in upper hand compared to small and medium categories. When seeing the Z –Score, Only two companies, Piramal Healthcare from medium and Morepen Laboratoris from large, are in grey zone and they have to study their performance a little more in depth. It may be concluded that all the overall financial health of companies is in a very safe zone where it is successful in its financial performance and not to fall bankrupt Capital structure analysis reveals that there is insignificant role for preference share capital as a source of finance in all the three categories of companies. Most of the companies under Small, Medium and Large category show a high dependence on internally generated funds. Equity share capital and share holders reserve are the major contributor as a source of finance. The Debt-Equity ratio of all the three categories is on the same plat form. A few companies under small, medium and large category wherein lenders have contributed more funds than owners. Those companies must try to reduce the excessive use of debt to pay interest on debt capital and debt-equity ratio is small in few companies which indicate the failure to use relatively lower cost borrowed funds to raise the return earned on equity.

A few companies must make efforts to improve their efficiency in operations and they can retire their debt to have a comfortable Interest Coverage Ratio. Liability toAsset ratio in case of few companies is very high which is an indication that their long term solvency position are not favourable. But most of the companies have moderate liability to asset ratio. On the whole, the solvency position is satisfactory for small, medium and large category. It is observed that the companies in large category indicate low cost of equity when compared to small and medium. The cost of debt is also low for large category compared to small and medium.

The operational efficiency should be increased by reducing cost and wastage and improving operating and management performance. Supply of working capital should be adequate. The liquidity position of the selected pharmaceutical companies should be improved by reducing current liabilities.

The Compound Annual Growth Rate of Small companies are relatively better than medium and large based on the growth rate in net profit, net worth and total asset and
large companies are better than the other two based on the growth rate in net sales. Analysing Sustainable growth rate, it is found that the desired growth is higher than the affordable rate for large companies compared to small and medium. Those companies can incorporate techniques to find solutions and to have growth objectives more realistic. A few companies under large category should try to use some strategy to improve their performance and sustain in the market. Analysis of Internal Growth Rate shows that the large companies can increase its asset base over the next year without raising funds. The performance is better for large category companies compared to small and medium and is an indication that the growth from general business operations in those companies can continue to fund and grow the company. Thus, it is concluded that the small and medium companies have performed relatively better than companies in large category.

On the whole, after analysing the health and growth of selected pharmaceutical companies, the small and medium companies have performed relatively better than companies in large category. The Indian Pharmaceutical Industry is a flourishing industry and the liberalized policies of the Government will help this sector to grow further. The growth is likely to be very good in future and appears to be very bright and promising.