CHAPTER 8
SUMMARY AND CONCLUSION

In today’s world of cutthroat competition, corporate growth is an ambiguous phenomena and it can be measured and interpreted in a variety of different ways (Bains, 1951; Mehta, 1955; Kakani et al., 2001; and Jones et al., 2006). Corporate growth reflects the degree of success achieved in terms of stated objectives and as the objectives differ widely so does the concept of growth (Pandey, 2006, p.245). As per U.S. Department of Commerce, growth provides a summary measure of corporate success or failure and thus serves as an essential indicator of economic performance (Whittington et al., 1975; Kumar, 1982; Geroski, 1997; Kaur, 1997; Glancey, 1998; Kakani et al., 2001; Rao and Rao, 2003). Drucker (1994b, p. 135), describes corporate growth as ‘Growth, after all, is the result of success, of offering what the market wants, buys and pays for, of using economic resources effectively, and of making the profits for expansion and for the risks of the future’.

Starbuck (1970) has given a list of 10 possible general motives for corporate growth i.e. organizational self-realization; adventure and risk; prestige, power, and job security; executive salaries; profits; cost; revenue; monopolistic power; stability; and survival. Some researchers claim, the entrepreneurial characteristics to be most important (Gundry and Welch, 1997), while others favour the firm strategy (Baldwin et al., 1994; Harrison and Taylor, 1996), networks (Larson, 1992) where as Porter (1990) said institutions in society. Firms’ growth is frequently used in measuring the rate of return of investment and relationship between earnings and equity valuation (Fenny and Roger, 1999). It also exhibits retained earnings (Kaur, 1997), providing much of the funding in plant and equipment that raises productive capacity (Kakani et al, 2001). Corporate growth is also used to evaluate the effect of changes in policy or in economic conditions of corporations (Mehta, 1955; and Esposito & Esposito, 1975). It is also an important component of the nation’s overall income and plays a role in measuring the total income resulting from production and the distribution of income across the sectors (U.N. Committee Report, 1963). Thus, a firm’s growth path affects corporate performance significantly.
With the liberalisation of the Indian economy and growth of the corporate entities there has been a paradigm shift both nationally and internationally in the functioning of businesses. The policy of LPG adopted by India in 1991 and the subsequent measures taken in this regard, have provided enormous growth opportunities to the Indian corporate sector. There are a number of factors that affect firms’ growth process; an industry in which a firm operates (Bains, 1951; Ito and Fuka, 2006), size (Mehta, 1955; Camanor and Wilson, 1969), leverage (Bothwell et al., 1984; Kakani et al., 2001), capacity utilization (Kumar, 1982; and Kaur, 1997), market share, product differentiation, profitability (Bothwell et al., 1984; Nagarajan and Barthwal, 1990), advertisement and marketing expenditure (Camanor and Wilson, 1969; Esposito and Esposito, 1971; Shepherd, 1972; Kaur, 1997; Kakani et al., 2001), R&D (Nagarajan and Barthwal, 1990; Fenny and Rogers, 1999). Thus, all these variables and many more are assumed to affect growth significantly. Therefore, from the preceding arguments provided in the empirical research, it could be postulated that a firm growth can be analyzed along multiple dimensions.

8.1 OBJECTIVES OF THE STUDY

The present study is intended to uncover some of the important aspects of growth. The study has the following specific objectives:

1) To examine the extent of corporate growth in India (firm wise and industry wise) during the period 1993-94 to 2007-08.

2) To study the relationship between Gibrat's Law and growth of firms in India.

3) To identify the determinants of corporate growth in India (firm wise and industry wise) during post liberalisation period i.e. 1993-94 to 2007-08.

4) To examine the inter-temporal variations in the determinants of corporate growth in India. In order to study the variations in growth overtime, the entire period of 15 years has been divided into three sub periods from 1993-94 to 1997-98, 1998-99 to 2002-03, and 2003-04 to 2007-08.
8.2 HYPOTHESES OF THE STUDY

Keeping in view the specific objectives of the study, the following null and alternate hypotheses were formulated and tested.

8.2.1 Hypotheses related to Gibrat’s Law and Growth of Firms in India

\( H_{01} \): The growth of different size classes has the same average proportionate rate of growth.

\( H_{1} \): The growth of different size classes has not the same average proportionate rate of growth.

\( H_{02} \): The size of companies in different industries does not significantly influence their growth rates.

\( H_{2} \): The size of companies in different industries significantly influences their growth rates.

8.2.2 Hypotheses related to Determinants of Corporate Growth in India in Post Liberalisation Period

\( H_{01} \): The size of a firm as measured by net sales or total assets has no significant impact on its growth.

\( H_{1} \): The size of a firm as measured by net sales or total assets has a significant impact on its growth.

\( H_{02} \): The profitability of a firm as measured by ROCE or RONW or Net profit ratio has no significant impact on its growth.

\( H_{2} \): The profitability of a firm as measured by ROCE or RONW or Net profit ratio has a significant impact on its growth.

\( H_{03} \): The age of a firm has no significant impact on its growth.

\( H_{3} \): The age of a firm has a significant impact on its growth.

\( H_{04} \): The advertising intensity of a firm as measured by the ratio of advertising and marketing expenditure to net sales has no significant impact on its growth.

\( H_{4} \): The advertising intensity of a firm as measured by the ratio of advertising and marketing expenditure to net sales has a significant impact on its growth.
H_{05}: The retention ratio of a firm has no significant impact on its growth.

H_5: The retention ratio of a firm has a significant impact on its growth.

H_{06}: The liquidity position of a firm as measured by current ratio or quick ratio has no significant impact on its growth.

H_6: The liquidity position of a firm as measured by current ratio or quick ratio has a significant impact on its growth.

H_{07}: The efficiency ratio of a firm as measured by assets turnover ratio has no significant impact on its growth.

H_7: The efficiency ratio of a firm as measured by assets turnover ratio has a significant impact on its growth.

H_{08}: The leverage of a firm has no significant impact on its growth.

H_8: The leverage of a firm has a significant impact on its growth.

H_{09}: The diversification of a firm as measured by number of products has no significant impact on its growth.

H_9: The diversification of a firm as measured by number of products has a significant impact on its growth.

H_{010}: The research and development intensity of a firm as measured by the ratio of research and development expenditure (both current and capital) to net sales has no significant impact on its growth.

H_{10}: The research and development intensity of a firm as measured by the ratio of research and development expenditure (both current and capital) to net sales has a significant impact on its growth.

H_{011}: The export ratio of a firm as measured by exports to net sales has no significant impact on its growth.

H_{11}: The export ratio of a firm as measured by exports to net sales has a significant impact on its growth.
H$_{012}$: The market value added ratio of a firm as measured by the market price to the book value of shares has no significant impact on its growth.

H$_{12}$: The market value added ratio of a firm as measured by the market price to the book value of shares has a significant impact on its growth.

H$_{013}$: The market share of a firm measured as proportion of a firm’s sales to the total sales of an industry to which it belongs in the same period has no significant impact on its growth.

H$_{13}$: The market share of a firm measured as proportion of a firm’s sales to the total sales of an industry to which it belongs in the same period has a significant impact on its growth.

H$_{014}$: The nature of industry to which a particular firm belongs does not significantly affect its growth.

H$_{14}$: The nature of industry to which a particular firm belongs significantly affects its growth.

8.2.3 Hypotheses related to Inter Temporal Variations in the Determinants of Corporate Growth in India

The hypotheses listed above (i.e. null hypotheses from H$_{01}$ to H$_{014}$ and alternate hypotheses from H$_{1}$ to H$_{14}$ related to determinants of corporate growth in India in post liberalisation period) have been tested for three sub periods from 1993-94 to 1997-98, 1998-99 to 2002-03 and 2003-04 to 2007-08 in order to study the inter temporal variations in the determinants of corporate growth in India.

8.3 DATABASE AND RESEARCH METHODOLOGY

BT-500 companies from the private sector rated on the basis of their market capitalisation constitute the universe of this study (BT-500 India’s Most Valuable Private Sector Companies for the year ended March 31, 2007). After filtrations, a resultant sample of 312 non-banking and non-financial companies was selected and studied for the period 1993-94 to 2007-08 to identify the determinants of corporate growth. Since industry characteristics have vital concern in the analysis of growth of companies (Schmalensee,
1989), hence industry wise classification was done constituting 12 industries (i.e. agro, automotive, capital & engineering, cement, chemical, FMCG’s, media & entertainment, petrochemical, life sciences & pharmaceutical, software, IT & ITES, steel and textile industry).

This study is based on secondary data. The data related to all the explanatory corporate growth variables for a period of 15 years (i.e. from 1993-94 to 2007-08) have been taken from PROWESS, the database of CMIE (Centre for Monitoring Indian Economy). Also, balance sheet and profit and loss statements published by these companies every year in their annual reports have been a source of information which was accessed from the site of SEBI (http://sebiedifar.nc.in/).

For the purpose of analyzing the growth of selected Indian companies, compounded annual growth rate of net sales (CAGRNS) and compounded annual growth rate of market capitalisation (CAGRMC) have been used as growth measures.

For first objective (i.e. to examine the extent of corporate growth), companies under the study have been divided into three categories i.e. High Growth Companies, Medium Growth Companies, and Low Growth Companies on the basis of their growth rates. In order to identify the range of high, medium and low growth rates, 33.3 and 66.7 percent percentiles respectively have been calculated (see Kumar, 1982; Kaur, 1997; National Human Development Report, 2005; Rajamohan, 2006; Ozonoff et al., 2009).

In order to check the validity of second objective (i.e. whether the companies in different industries have the same average proportionate rate of growth), compounded annual growth rate of net sales and market capitalisation have been regressed on opening size. If the growth rates will be systematically different for different size classes, then size would explain at least a part of firm’s growth process (Mansfield, 1962; Brusco et al., 1979; Kumar, 1985; Evans, 1987; Dunne and Hughes, 1994; Rufin, 2005). Hence, if parameter \( \beta = 1 \), firm size has no effect on its growth and Gibrat’s law will hold (assuming that the disturbances, \( U_{it} \), are independently distributed over time). However, if parameter \( \beta \neq 1 \), size and growth relationship will depart from Gibrat’s law and would follow another line of research. That is, if parameter \( \beta > 1 \), then firm growth path is explosive and firms tend
to grow faster as they get larger. Otherwise, if parameter $\beta < 1$, smaller/younger firms will grow faster than larger one’s.

For third objective (i.e. to identify the determinants of growth of selected Indian companies during the period 1993-94 to 2007-08 undertaking all the 14 explanatory variables such as size, age, profitability, R&D intensity, advertising intensity, exports, efficiency, leverage, liquidity, market value added ratio, market share, retention ratio and diversification and nature of industry), following statistical techniques have been applied:

- Descriptive Statistics like Skewness, Kurtosis, Maximum, Minimum, Mean, Percentiles and Range.
- Pearson Product Moment Correlation ($r$) has been computed to examine the correlation between the dependent and independent variables.
- Factor Analysis Technique was run to reduce the large number of variables to a few factors that explain a lot of variance. In the present study, the extracted factors had explained maximum variance of 65.39 percent and 65.15 percent respectively with compounded annual growth rate of net sales and market capitalisation. However, due to the problem in labelling of factors (i.e. some variables with different nature grouped in one factor) and exclusion of some important variables which has been perceived to be important (e.g. age, market share, R&D intensity and market value added ratio) either the companies wish to grow by net sales or market capitalisation, regression analysis was run directly.
- Backward Stepwise Regression Analysis has been used for each of these dependent variables (i.e. compounded annual growth rate of net sales and compounded annual growth rate of market capitalisation). Different equations have been run with the different surrogate measures of profitability (i.e. ROCE or RONW or net profit ratio) and liquidity (i.e. current ratio or quick ratio) for each of these dependent variables. The best-fit equation has been picked for discussion with each of the dependent variable for all firm analysis and industry wise analysis.
Section II in the third objective has analyzed the role of industry membership in explaining the growth of companies operating in different industries. Backward Stepwise Regression Analysis has been done to refine the regression models to get the best fit model. Thus, two separate regression models have been tested for both dependent variables i.e. CAGRNS and CAGRMC for companies in each industry. However, due to the presence of insufficient number of companies in cement industry (13), chemical industry (18), media and entertainment industry (13), petrochemical industry (15), steel industry (18) and textile industry (23); for the final model with both dependent variables (i.e. compounded annual growth rate of net sales and market capitalisation) the variance – co variance matrix is singular. Hence influence statistics cannot be computed.

For fourth objective (i.e. to examine variations in growth overtime), Pearson Product Moment Correlation Coefficient Analysis, and Backward Stepwise Regression Analysis was used to examine the impact of various firm specific attributes on the growth behavior of the companies in the three different sub periods (i.e. sub period I, II and III) in the post liberalisation period of India.

8.4 MAJOR FINDINGS OF THE STUDY

8.4.1 Extent of Corporate Growth

1) The distribution of the companies in different growth categories (i.e. high, medium and low) varies drastically i.e. 51: 224: 37 in case of net sales and 64: 221: 27 in case of market capitalisation. Also, high growth companies have recorded maximum mean growth rates (34.43 percent in case of net sales and 63.63 percent in case of market capitalisation) followed by the medium growth companies (13.63 percent in case of net sales and 13.91 percent in case of market capitalisation) and thereafter low growth companies (1.55 percent in case of net sales and 0.73 percent in case of market capitalisation).

2) Two sample t – test has revealed that there exists significant difference in mean growth rates of high and medium growth companies; high and low growth companies; and medium and low growth companies at 1 percent level,
whether the growth is measured by compounded annual growth rate of net sales or market capitalisation.

3) Some industries are consistently outperforming than others whether the growth is measured by compounded annual growth rate of net sales or market capitalisation. The highest mean compounded growth rates have been noticed in case of software, IT & ITES industry (39 in net sales and 42.34 in market capitalisation), followed by life sciences & pharmaceutical industry (38.22 in net sales and 38.60 in market capitalisation), entertainment and media industry (34.26 in net sales and 31.56 in market capitalisation), petrochemical industry (31.39 in net sales and 30.32 in market capitalisation), steel industry (14.52 in net sales and 19.84 in market capitalisation), automotive industry (10.53 in net sales and 15.24 in market capitalisation), cement industry (10.06 in net sales and 14.10 in market capitalisation) and FMCG’s industry (7.56 in net sales and 11.30 in market capitalisation). However, mean compounded growth rates have been recorded minimum in chemical industry (4.31 in net sales and 4.38 in market capitalisation), followed by capital and engineering goods industry (5.99 in net sales and 6.36 in market capitalisation) and thereafter textile industry (8.07 in net sales and 6.84 in market capitalisation).

4) ANOVA (one way) was applied to test whether significant difference exists in the growth rates of different industries. The results reveal that the calculated value of F is significant at 1 percent level in each firm size distribution. Hence, the dispersion of growth rates about the mean is not same for various industries i.e. nature of industry does influence the growth rate whether it is measured by compounded annual growth rate of net sales or market capitalisation.

In nutshell the extent of corporate growth varies from firm to firm and industry to industry whether the growth is measured by compounded annual growth rate of net sales or market capitalisation.
8.4.2 Gibrat’s Law and Growth of a Firm in India

1) The estimated coefficient of net sales and market capitalisation is less than one for the population as a whole and for majority of industries. It means that an increase in the opening size (measured in total assets for the accounting year 1993-94) of a firm by 1 percent has brought a corresponding decline of .01 percent and .001 percent respectively in the compounded annual growth rates of net sales and market capitalisation. Also, an Adj.R² with a low value of .019 and .001 respectively with net sales and market capitalisation is pointing that independent variable (i.e. opening size) has explained only a marginal variations (i.e. of 1.9 percent and .1 percent) in the dependent variables respectively (i.e. CAGRNS and CAGRMC). The relationship was found to be significant with compounded annual growth rates of net sales and market capitalisation at 5 percent and 10 percent level respectively.

2) Agro and Automotive industry have significantly explained this inverse relationship between opening size of total assets and compounded annual growth rates with net sales at 5 percent level along with Life Sciences and Pharmaceutical industry at 1 percent level of significance. Further, Agro, Automotive and Textile industry have also significantly explained an inverse relationship between opening size of total assets and compounded annual growth rates of market capitalisation at 10 percent level of significance with Life Sciences and Pharmaceutical industry at 5 percent level of significance.

Hence, it was found that slope coefficient was less than unity for the population as a whole and majority of industries. Thus, smaller firms are growing faster, rejecting Gibrat’s Law for Indian industry as the growth rates have been found to be associated with firm size. Hence, null hypotheses (i.e. H₀₁ and H₀₂) have been rejected, accepting alternate hypotheses H₁ and H₂.

8.4.3 Determinants of Corporate Growth in India in Post Liberalised Period

1) The correlation coefficients reveal that the size of a firm as measured by total assets, its age, R&D intensity, advertising intensity, diversification as measured
by the number of the products, efficiency measured by assets turnover ratio are significantly and positively correlated with the growth of companies (i.e. CAGRNS and CAGRMC) at 1 percent level of significance.

2) The results of multiple regression analysis reveals that approximately 77% impact on CAGRNS is explained by total assets as a measure of size (positively significant at 1 percent level), age (positively significant at 1 percent level), market value added ratio (positively significant at 10 percent level), efficiency as measured by assets turnover ratio (positively significant at 1 percent level), net profit ratio as a measure of profitability (positively significant at 5 percent level), liquidity ratio (negatively significant at 10 percent level) and diversification (positively significant at 10 percent level). However, as opposite to our hypothesis, nature of industry (i.e. steel industry and life sciences and pharmaceutical industry) is negatively and significantly associated with growth at 10 percent level associated. Further, export ratio, market share, advertising intensity, R&D intensity and retention ratio are positively related with growth in net sales, though these relationships are statistically non-significant.

Similarly, results suggest that approximately 68% impact on CAGRMC is explained by total assets as a measure of size (positively significant at 1 percent level), market value added ratio (positively significant at 1 percent level) and liquidity ratio (negatively significant at 10 percent level). Further, age, export ratio, market share, advertising intensity, R&D intensity, efficiency ratio, diversification and retention ratio are positively related with growth in market capitalisation, though, these relationships are statistically non-significant.

3) The backward stepwise regression analysis with compounded annual growth rate in net sales as a dependent variable reveals that size of a firm measured by total assets (positive at 1 percent level of significance), its age (positive at 1 percent level of significance), efficiency as measured by asset turnover ratio (positive at 1
percent level of significance), profitability measured in terms of ROCE (positive at 1 percent level of significance), diversification (positive at 5 percent level of significance); nature of industry (i.e. software industry in relation to automotive industry) and liquidity position of the firm reflected through quick ratio (negative at 1 percent level of significance) when regressed jointly explain about 82 percent of the variations in the growth of the companies under study. The predicted regression model emphasises that companies which grow by net sales are bigger in size, older in age, diversified in various product markets, have better profitability and efficiency ratios and lower quick ratio. Therefore, alternate hypotheses i.e. H₁, H₂, H₃, H₆, H₇, H₉ and H₁₄ have been accepted, rejecting null hypotheses for CAGRNS.

4) The backward stepwise regression analysis with compounded annual growth rate in market capitalisation as a dependent variable reveals that size as measured by total assets (positive at 1 percent level of significance), age (positive at 1 percent level of significance), profitability as measured by ROCE (positive at 1 percent level of significance), R&D intensity (positive at 1 percent level of significance), liquidity position measured in quick ratio (negative at 1 percent level of significance), advertising intensity ratio (positive at 1 percent level of significance), and nature of industry (i.e. life sciences & pharmaceutical industry, media & entertainment industry and software, IT & ITES industry positive at 1 percent level of significance; however agro industry, steel industry, petrochemical industry and textile industry negative at 1 percent level of significance) when regressed jointly explains about 86.5 percent of the variations in the growth of the companies under study. The predicted regression model emphasises that companies that grow by market capitalisation are bigger in size, older in age are spending high proportions of their sales on R&D and advertising, have better profitability and efficiency ratios and lower quick ratio. Therefore, alternate hypotheses i.e. H₁, H₂, H₃, H₄, H₆, H₁₀ and H₁₄ have been accepted, rejecting null hypotheses for CAGRMC.
5) The results of the present study conclude that the size of a firm, its age, R&D intensity, profitability, advertising intensity, liquidity, efficiency, diversification and nature of industry are found to be significantly affecting growth of firms in India and are in predicted direction.

Thus, the results of the present study corroborate the findings of the past research carried out in India and other countries.

8.4.4 Inter Industry Determinants of Corporate Growth in India in Post Liberalised Period

1) Irrespective of the industry to which the companies belong, size (as measured by total assets) turned out to be significant determinant with both measures of corporate growth (i.e. CAGRNS and CAGRMC). It implies that bigger companies in each industry are growing at a faster rate in comparison to small sized companies.

2) Age turned out to be a significant determinant explaining corporate growth in capital and engineering goods industry (when growth is measured in market capitalisation) and life sciences and pharmaceutical industry (with both the measures of corporate growth). It shows that older companies are growing comparatively more in capital & engineering goods industry and life sciences & pharmaceutical industry. It might be that these industries are getting benefits from dynamic economies of scale, easy availability of capital, brand names, corporate reputation and also by learning from their experiences. However, in case of software, IT & ITES industry younger companies are out performing (with both the measures of corporate growth) as older companies tend to make them inflexible and unable to appreciate changes in the environment.

3) Inter industry analysis of corporate growth has revealed that irrespective of the industry to which the companies belong, profitability (expressed in ROCE or RONW or net profit ratio) turned out to be significant determinant with both measures of corporate growth (i.e. CAGRNS and CAGRMC) except automotive industry when growth is measured in net sales. It implies that the companies with
greater profitability in all industries are growing faster in comparison to less profitable companies.

4) The analysis has revealed that irrespective of the industry to which the companies belong, liquidity position of the companies (measured in current ratio or quick ratio) turned out to be significant determinant with both the measures of corporate growth (i.e. CAGRNS and CAGRMC). It shows that high growth companies do not keep high level of liquid assets with them. Thus, lower the liquidity higher the growth of companies in all industries.

5) The results reveal that market value added ratio is significantly explaining the growth of agro industry (when growth is measured in net sales); automotive, capital and engineering goods, FMCG’s and software, IT and ITES industries (when growth is measured in market capitalisation) and life sciences and pharmaceutical industry (with both the measures of corporate growth). It implies that market value of every rupee of equity of the companies belonging to these industries is higher in relation to its book value.

6) Export ratio is negatively and significantly determining the growth of agro industry (measured in net sales); capital and engineering goods industry and FMCG’s industry (when growth is measured in market capitalisation). It implies that an exporting firms in agro, capital and engineering goods and FMCG’s industries are growing comparatively at a lesser rate in comparison to the companies in other industries since these are not high export intensive industries.

7) Retention ratio of companies is found to be a significant determinant of growth of capital & engineering goods industry (negatively) and FMCG’s industry (positively) when the growth is measured in net sales; and agro industry (positively) when the growth is measured in market capitalisation. It implies that companies relying more on internal finance in agro and FMCG’s industries are growing more. However, companies which are lesser dependent on retained profits have shown higher growth in capital and engineering goods industry.

8) The results reveal that R & D intensity of the companies is positively and significantly affecting the growth of agro industry (when the growth is measured
in market capitalisation); and automotive, life sciences & pharmaceutical and software, IT and ITES industries (when the growth is measured in net sales). It implies that the innovation brought by R&D in companies in these industries is helping them to grow. New product improvements are also helping companies in these industries to boost their sales and have a positive effect on their market capitalisation. These are high R&D intensive industries and R&D intensity contributes significantly to the growth of firms in these industries.

9) Diversification of companies is found to be positively and significantly affecting the growth of automotive and capital & engineering goods industries (when the growth is measured in net sales) and software, IT and ITES industry (with both the measures of corporate growth). Thus it implies that the diversified product portfolio of companies in these industries is helping them in their risk reduction, to develop new innovations through R&D and entering into foreign markets with technologically advanced countries, through international diversification.

10) Irrespective of the industry to which a firm belongs, its efficiency as measured by assets turnover ratio is positively and significantly determining the growth of all companies (except companies in capital and engineering goods and FMCG’s industries when growth is measured in market capitalisation). It shows that effective and efficient assets utilization contributes significantly to the growth of companies.

11) Leverage of the companies is found to be negatively and significantly determining the growth of agro industry (with both the measures of corporate growth); automotive and capital & engineering goods industries (when growth is measured in market capitalisation), however, is positively and significantly determining the growth of software, IT and ITES industry with both the measures of corporate growth. Hence, it implies that companies with high growth rate in agro, automotive and capital & engineering goods industries are maintaining a relatively lower level of leverage. It might be due to their ability to finance it from self generated funds. A positive relationship between leverage and growth of companies in Software, IT and ITES industry reveals that more reliance by these
companies on debt is helping them to grow as generally the cost of equity of such companies is much higher than the cost of debt.

12) Advertising intensity is found to be positively and significantly determining the growth of companies in FMCG’s industry. Hence it shows that industries doing advertising expenditure are generating advantages of uniqueness and entry barriers for its competitors by building intangible assets (say, brands) leading to their higher growth.

8.4.5 Inter-Temporal Variations in the Determinants of Corporate Growth

I) Sub Period I from 1993-94 to 1997-98 with CAGRNS as Dependent Variable

The results of the backward stepwise regression analysis have revealed that the regressors namely size of a firm measured by total assets (positive at 1 percent level of significance), efficiency as measured by asset turnover ratio (positive at 1 percent level of significance), profitability in terms of ROCE (positive at 5 percent level of significance), advertising intensity (positive at 10 percent level of significance), export ratio (positive at 1 percent level of significance) and nature of industry i.e. agro (negative at 5 percent level of significance); FMCG’s and media & entertainment industry (negative at 1 percent level of significance) in relation to automotive industry when regressed jointly have explained about 79.5 percent of the variations in growth in net sales of companies under study for the sub period I.

II) Sub Period I from 1993-94 to 1997-98 with CAGRMC as Dependent Variable

The results of the backward stepwise regression analysis have exhibited that 82 percent of the variations in compounded annual growth rate of market capitalisation for the sub period I (i.e. 1993-94 to 1997-98) have been explained by size of a firm as measured by its total assets (positive at 1 percent level of significance), its age (positive at 1 percent level of significance), profitability as measured by ROCE (positive at 1 percent level of significance), leverage (positive at 1 percent level of significance), liquidity position measured by quick ratio (positive at 1 percent level of significance), market value added ratio (positive at 1 percent level of significance), R&D intensity (positive at 1 percent level of significance), advertising intensity (positive at 1 percent level of significance)
and nature of industry i.e. agro (negative at 1 percent level of significance); FMCG’s (negative at 5 percent level of significance) and media & entertainment industry (negative at 10 percent level of significance) in relation to automotive industry.

Therefore, alternate hypotheses i.e. $H_1$, $H_2$, $H_3$, $H_4$, $H_7$, $H_9$, $H_{10}$, $H_{11}$, $H_{12}$ and $H_{14}$ have been accepted, rejecting null hypotheses for both the measures of corporate growth (i.e. CAGRNS and CAGRMC) for the sub period I (i.e. 1993-94 to 1997-98).

III) Sub Period II from 1998-99 to 2002-03 with CAGRNS as Dependent Variable

The results of the backward stepwise regression analysis have exhibited that the regressors namely size of a firm measured by total assets (positive at 1 percent level of significance), age (positive at 10 percent level of significance), retention ratio (positive at 1 percent level of significance), efficiency as measured by asset turnover ratio (positive at 1 percent level of significance), profitability in terms of net profit ratio (positive at 1 percent level of significance), and nature of industry i.e. media & entertainment (negative at 1 percent level of significance) and Software, IT and ITES industry (negative at 5 percent level of significance) in relation to automotive industry explain about 87.9 percent of the variations in growth in net sales of companies under study for the sub period II (i.e. 1998-99 to 2002-03).

IV) Sub Period II from 1998-99 to 2002-03 with CAGRMC as Dependent Variable

The regression model has revealed that 83 percent of the variations in compounded annual growth rate of market capitalisation for the sub period II (i.e. 1998-99 to 2002-03) have been explained by size of a firm as measured by its total assets (positive at 1 percent level of significance), liquidity position measured by quick ratio (negative at 1 percent level of significance), profitability as measured by net profit ratio (positive at 1 percent level of significance), leverage (negative at 1 percent level of significance), retention ratio (positive at 10 percent level of significance), market value added ratio (positive at 1 percent level of significance), advertising intensity (positive at 1 percent level of significance), efficiency ratio (positive at 1 percent level of significance) and nature of industry i.e. agro, cement, petrochemical, steel and textile (negative at 1 percent level of
significance); however, media & entertainment and life sciences and pharmaceutical (positive at 1 percent level of significance) in relation to automotive industry.

Therefore, alternate hypotheses i.e. $H_1$, $H_2$, $H_3$, $H_4$, $H_5$, $H_6$, $H_7$, $H_8$, $H_{12}$ and $H_{14}$ have been accepted, rejecting null hypotheses for both the measures of corporate growth (i.e. CAGRNS and CAGRMC) for the sub period II (i.e. 1998-99 to 2002-03).

V) Sub Period III from 2003-04 to 2007-08 with CAGRNS as Dependent Variable

This results of backward stepwise regression analysis have explained that 80.1 percent of the variations in compounded growth in net sales of companies for the sub period III (i.e. 2003-2004 to 2007-08) brought by regressors namely size of a firm measured by total assets (positive at 1 percent level of significance), age (positive at 10 percent level of significance), liquidity as measured in quick ratio (negative at 1 percent level of significance), market value added ratio (positive at 5 percent level of significance), retention ratio (positive at 1 percent level of significance), efficiency as measured by asset turnover ratio (positive at 1 percent level of significance), profitability in terms of ROCE (positive at 1 percent level of significance), advertising intensity (positive at 5 percent level of significance), diversification (positive at 1 percent level of significance) and nature of industry i.e. media & entertainment, FMCG’s and life sciences and pharmaceutical industries (negative at 1 percent level of significance) in relation to automotive industry.

VI) Sub Period III from 2003-04 to 2007-08 with CAGRMC as Dependent Variable

The backward stepwise regression model has shown that 85.5 percent of the variations in compounded annual growth rate of market capitalisation for the sub period III (i.e. 2003-04 to 2007-08) have been explained by size of a firm as measured by its total assets (positive at 1 percent level of significance), leverage (negative at 1 percent level of significance), profitability as measured by net profit ratio (positive at 1 percent level of significance), market value added ratio (positive at 1 percent level of significance), advertising intensity (positive at 1 percent level of significance), efficiency ratio (positive at 1 percent level of significance) and nature of industry i.e. agro, cement, chemical, FMCG’s, petrochemical, steel and textile (negative at 1 percent level of significance);
however, Software, IT & ITES industry (positive at 1 percent level of significance) in relation to automotive industry.

Therefore, alternate hypotheses i.e. \( H_1 \), \( H_2 \), \( H_3 \), \( H_4 \), \( H_5 \), \( H_6 \), \( H_7 \), \( H_8 \), \( H_9 \), \( H_{12} \) and \( H_{14} \) have been accepted, rejecting null hypotheses for both the measures of corporate growth (i.e. CAGRNS and CAGRMC) for the sub period III (i.e. 2003-04 to 2007-08).

8.5 IMPLICATIONS OF THE STUDY

The growth of firms is something inherent to their actual existence. Throughout their life, firms must grow continuously if they want to maintain their competitive position with in an environment where other rival firms may be growing at a faster pace. However, this does not mean that the growth of firms takes place in an unplanned way (Claver et al., 2006), it is the fruit of conscious strategic decisions taken by a firm from time to time in this ever-changing business environment. Hence, the present study has its implications for a number of interested groups.

1) This study would help the investors in identifying the high growth companies in which they should invest their resources and can get the maximum return. Thus, this study will guide the investor in taking wise investment decision with regard to their investment.

2) Fund managers, acting on behalf of their clients, are expected to invest in firms with good performance prospects. Thus, this study will throw light on the significant firm specific attributes that determine corporate growth whether companies wish to grow by net sales or by market capitalisation.

3) Firm’s strategists are concerned with the performance of their firms, as well as with the growth trends of the other competitive firms with in the industries in which they operate. Thus, this study will provide major inputs in terms of determinants of growth of different Indian firms as well as Indian industries whether measured in terms of net sales or market capitalisation. Accordingly they can make the strategies for the further growth of firms by creating competitive advantage as regards such factors and can outperform them.
4) This study will be helpful to our regulatory authorities (such as Planning Commission and SEBI) for the policy framework by concentrating on the predictors of corporate growth both firm wise and industry wise in different sub periods through which Indian economy has passed in the post liberalised period.

5) Researchers will also be benefitted as they can extend their work to carry out research based on scope for further research.

8.6 SCOPE FOR FURTHER RESEARCH

Corporate growth is a vital area of research throwing light into various predictors of growth of companies. Further research can be carried out:

1) To measure firm’s related and unrelated diversification through Entropy measure and its impact on corporate growth.

2) To compare the predictors of growth of Indian corporate sector with the rest of world.

3) To study the growth determinants of companies in different business groups as more than two – third firms in India have an affiliation to a business group.