CHAPTER-VIII
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The automobile sector is the dominant player not only in Indian economy but also in the economy of the world. Due to its forward and backward association with several key segments of the economy, the industry has a strong multiplier effect on industrial growth. The industry has been evolving over the years, meeting up with challenges as varied as transitions, consolidations and restructuring, thereby, adapting to the new market environment. The increase in the efficiency and productivity of automobile industry helps directly and indirectly to accelerate the efficiency of other sectors through the movement of goods and people in the economy. Therefore, the industry is recognized as one of the key drivers of economic growth in India.

The automobile industry has emerged as a major contributor in India’s GDP since 1991. After the policy of liberalization, the industry became free as the restrictions have been reduced leading to the entry of some global players, consequently increasing the installed capacity and production. The entry of the global auto players in India has significantly altered the automobile manufacturing scenario in the country. The changes in the design and adaptation of international technologies have enabled the Indian automobile industry to compete globally. Today, the Indian automobile industry is flying with the wings of technology, advancement and innovation. India is becoming an important destination for research and development in automobile sector because India is fully equipped with the engineering and components manufactures. Many foreign automotive firms have also come in the Indian market and there is long list of foreign companies that are seeking alliances with the Indian counterparts. Corporate participation in these alliances differs from ten percent to hundred percent of equities. Further, due to its backward and forward linkages the industry is significant generator of employment. There is much potential in the growth of Indian automobile industry as there are only thirteen cars per thousand persons in India as compared to twelve hundred cars in USA and forty five cars in China in 2012-13 (OICA). The Indian automobile market is segmented as passenger vehicles market, commercial vehicles market, two wheeler market and others.
As the structure of the automobile industry in India is changing due to new economic reforms, it has implications for the conduct and performance also. A Structure-Conduct-Performance (SCP) framework has been widely used to explain the relative performance of the firms and industries in economic literature. A simple version of this approach assumes that the basic exogenous conditions determine market structure and there is unidirectional flow of causality from market structure through conduct to performance. This link or proposition gives us the basic framework for the study of the economic behavior of the firms and industry. The SCP framework posited a one way chain of causation running from industry structure (firm concentration) to firm conduct (marketing strategies) to market performance (profitability, innovation). The central claim was that high concentration would lead to high prices and thus to high profits. Recognizing that free entry by competing firms ought to quickly erode these profits, significant barriers to entry would then be required to maintain a concentrated structure. Thus, it need not to be unidirectional running from the structure to the performance but may operate in some situations in the reverse way or may be segmented showing cross links between any two of the three aspects structure, conduct and performance.

With this background, the present study has been conducted to estimate and analyze growth, performance and marketing strategies of automobile industry in India whose structure is changing with liberalization.

Section-I

Objectives of the Study

The main objectives of the study are:

1. To analyze the growth of automobile industry in India
2. To examine the firm-wise growth of the sampled firms.
3. To study the financial and non financial performance of the sampled firms.
4. To evaluate the marketing strategies used by the firms.
5. To identify the strengths, weaknesses, opportunities and threats of the firms under study.
**Data Sources and Methodology**

The time period of the study is post liberalization period i.e. 1993-94 to 2012-13. To meet the above mentioned objectives of the study, the data has been collected from primary as well as secondary sources. Various publications of Society of Indian Automobile Manufacturers (SIAM), annual reports of the firms under study and Centre for Monitoring Indian Economy (CMIE) have been used as the main data source for secondary data. Moreover, Economic Surveys, Organisation Internationale des Constructeurs d’Automobiles (OICA), RBI Hand Book of Statistics on Indian Economy, Statistical Abstract of India etc. are the other data sources that have been used to collect secondary information. A survey has been conducted on the consumers of the firms under study with the help of a questionnaire to collect the primary data, with the objective of analyzing the different marketing strategies of the firms under study.

To analyze the data collected through various sources, the study has used the compound growth rates to analyze the growth behavior of industry and firms under study. To measure the non-financial performance of the selected firms, capital productivity, labor productivity, capacity utilization and capital-labor ratios have been calculated. To measure the financial performance of the sampled firms, ratio analysis has been conducted. Moreover, non-linear regression model has been used to calculate the future estimates of domestic sale and exports in passenger vehicles and commercial vehicles segments. On the basis of marketing mix i.e. four Ps, marketing strategies of the selected firms have been analyzed. With the help of regression analysis, the efficacy of the marketing expenditure and advertisement expenditure has been examined.

**Scope of the Study**

The scope of the study is limited to the firms of Indian origin producing the four wheelers and above. The study has chosen five automobile manufacturers i.e. Maruti Suzuki, Tata Motors, Mahindra & Mahindra, Ashok Leyland and Hindustan Motors. The study divides these manufacturers on the basis of passenger vehicles manufacturers and commercial vehicles manufacturers. Maruti Suzuki produces only passenger vehicles while Ashok Leyland produces only commercial vehicles. Tata Motors, Mahindra & Mahindra and Hindustan Motors produce both passenger and
commercial vehicles. The manufacturers of passenger vehicles and commercial vehicles have analyzed separately.

**Overview of the Chapters**

**Chapter-1**

The chapter one is the introductory chapter that gives the introduction of the Indian automobile industry initially and explains the trend in the global automobile industry. The chapter shows the evolution in the different time phases and explains the current scenario of the industry. The chapter explains the history of the Indian automobile industry in different phases, the duration of 1st phase is 1900-1935, from this time period demand for cars had increased in domestic market and India was mainly dependent on imports to satisfy domestic demand. The second phase time duration is 1936-1970. Till independence Indian automobile industry remained under developed and no effort was made to reform the industry. The third phase starts in 1971 and ends in 1991. During this phase, Indian automobile industry had been operating under the conditions of protectionism. Fourth phase duration is 1991-2000, after India adopted new economic policy in 1991, the important changes in the automobile industry occurred in the form of deregulation and liberalization of control on foreign collaborations, imports and foreign technology. The market share of different firms has been shown in both passenger vehicles and commercial vehicles. The two wheelers contribute 77 percent in the total market share in the domestic automobile market. According to the automotive mission plan, the Indian automobile industry will contribute ten percent in the GDP up to 2016. The chapter explains the factors enhancing the growth of demand of vehicles in India and the importance of marketing strategies in the highly competitive Indian automobile industry.

**Chapter-2**

This chapter explains the literature review and the existing gap in the research which the present study is supposed to fill. Although number of studies have been undertaken on automobile industry but most of them are related to its technological aspects and competitiveness. Very few studies have been conducted on the performance of this industry particularly during liberalization period. During the past few years, more than a dozen multinational firms have entered the Indian market.
Most of them have formed joint ventures with Indian firms. Though the vehicles of multinational corporations are expensive yet the new entrants are betting on the rising income of middle class family. Moreover, cost and quality remain the underlying issues of India’s auto industry for its internationalization. Indian automakers are being challenged on several counts such as cost, especially labor cost are rising for Indian manufacturers, while the cost reductions that should come with infrastructure improvements are slow in materializing. The quality imperative means that Indian automakers have to seek new technological resources through alliance and acquisition, challenging the capital and management resources of companies that are often small and family owned. The firms are also using different marketing strategies to strengthen their position. The market conduct of the firms in turn affects the performance of the firms in the market. Thus it is important to study the impact of stiff competition caused by the policy of liberalization on the Indian automobile industry in general and particularly on Indian firms. Additionally, this chapter also explains the main objectives of the study along with research methodology.

Chapter-3

This chapter explains that the growth in Indian automobile industry triggered after 1991 when India adopted the policy of liberalization, privatization and globalization. In the global automobile production the trend is changing and the countries like China, India, and Brazil are becoming the emerging hub of automobile production. The chapter takes the vital variables such as production, domestic sale, exports, FDI in the industry, employment generation, installed capacity etc, on the basis of which the growth of Indian automobile industry has been analyzed.

Chapter-4

This chapter presents the growth performance of the firms under study on the basis of production, domestic sale and exports in case of commercial vehicles and passenger vehicles separately. Maruti Suzuki, Tata Motors, Mahindra & Mahindra and Hindustan Motors have been compared in passenger vehicles category while Tata Motors, Ashok Leyland, Mahindra & Mahindra and Hindustan Motors have been compared in the category of commercial vehicles segment. After analyzing the growth of firms under study in the post liberalization period, the future values of the domestic
sale and export of selected firms have been calculated with the help of trend analysis. On these lines, the chapter has been divided into three sections. Section-I gives the overview of the firms under study. Inter-firm growth analysis has been done under section-II. In section-III, future estimates of the domestic sale and exports of sampled firms have been carried out.

Chapter-5

Performance is generally linked with productivity and profitability. The economy or a sector with higher productivity is expected to have higher growth in output level. With the stiff competition in the Indian automobile industry it has become pertinent to analyze the productivity performance of the sector for better policy measures. Further, business firms are generally established with a view of earning profit from their business operations. In this chapter, performance of the selected firms has been analyzed. Performance of the firms has been judged on the basis of non-financial indicators (section-I) and financial indicators (section-II). Non-financial indicators chosen are: capital productivity, labor productivity, capital-labor ratio and capacity utilization. Financial performance has been depicted by using ratio analysis. Broadly four types of ratios are calculated i.e. liquidity ratios, leverage ratios, profitability ratios and turnover ratios.

Chapter-6

Due to ever increasing competition in the Indian automobile industry and change in customer needs, the firms have realized the importance of framing competitive marketing strategies. Vehicle manufacturers are aware that in today’s competitive world, innovative branding and marketing strategies are vital to grab the market share. The Indian automobile market is presently crammed with tremendous competition. To cope up with the competition and heavy risk, firms need to design exceptional and influential marketing strategies. The chapter compares the firms on the basis of their marketing strategies. The marketing strategies of the firms have been analyzed on the basis of product, price, place and promotion. The set of questionnaires help to evaluate the product features and buying behavior of the consumers. The price range of the vehicles has been analyzed and the expenditure of the firms on the marketing, distribution and advertisement has been compared and their effectiveness has been
evaluated by regressing the domestic sale against marketing expenditure and advertisement expenditure.

Chapter-7

SWOT analysis assists the firm in accomplishing its objectives, overcoming or minimizing obstacles to achieve desired results. The purpose of the SWOT analysis is to provide information on strengths and weaknesses in relation to the opportunities and threats of a firm. On the basis of SWOT analysis, the present chapter tries to identify the strengths, weaknesses, opportunities and threats of the firms under study.

Chapter-8

This is the final chapter of the thesis. The present chapter has been divided in three sections. Section-I deals with the objectives of the study, data sources and methodology, scope of the study and overview of the chapters. The main findings of the study and recommendations have been carried out in section-II and section-III respectively.

Section-II

Findings of the Study

The following are the main findings of the study:

1) Maruti Suzuki has the highest market share (39.12 percent) in passenger vehicles in India followed by Hyundai Motors (14.28 percent), Tata Motors (11.71 percent) and Mahindra & Mahindra (11.57 percent) in the year 2012-13. Hindustan Motors has only 0.21 percent market share in the same year (Table 1.4). On the other hand, Tata Motors has the highest market share (56.08 percent) in the commercial vehicles segment in India followed by Mahindra & Mahindra (18 percent) and Ashok Leyland (13.33 percent). Hindustan Motors has negligible market share of 0.03 percent in the commercial vehicle segment in 2012-13 (Table 1.5).

2) The category wise domestic market share indicates that, two wheelers has the highest market share (77.45 percent) followed by passenger vehicles (15.08 percent), commercial vehicles (4.45 percent) and three wheelers (3.02 percent) in India (Table 1.6). The main reason of high dominance of two wheeler category is the suitability
and easy mode of transport in the congested Indian cities and affordability in the low income country like India.

3) The growth rate of production in Indian automobile industry has been 11.70 percent during 1993-94 to 2012-13 (Table 3.3). On the other hand, the global vehicle production has grown only at the rate of 2.93 percent during 1997 to 2012. Further, the rate of growth of domestic sale has been 10.79 percent in India (Table 3.4) during 1993-94 to 2012-13. The impressive growth rate of production and domestic sale indicate that Indian automobile industry would further improve its rank in the world vehicle production from its current rank of 6th largest vehicle manufacturer.

4) The rate of growth of exports of automobile industry in India has been 19.83 percent (Table 3.5) during the period under study. During 1993-94 to 2002-03, the export growth rate has been only 4.09 percent. The industry faces the negative growth in exports during 1997-98 to 1999-2000 because of poor demand of vehicles in the foreign market. The growth rate of exports turns out to be 66.40 percent and 56.16 percent during 2002-03 and 2003-04 respectively as the Indian firms have introduced some well accepted new models in the foreign market. The industry outshines during the second phase of liberalization, the growth of exports has been 22.98 percent due to encouraging domestic economic conditions and decline in the tariff by the importing countries have also helped in boosting exports.

5) From 1991 to 1999, the automobile sector has generated only Rs. 853 million foreign direct investment (FDI). Once Government adopted liberalization measures and allowed hundred percent FDI, the foreign direct investment has increased tremendously and during 2000 to 2012 the cumulative foreign direct investment has reached to Rs. 343305.74 million (Table 3.7). It indicates that India, with its rising automobile market, is becoming the hub for automobile production. That is why the major global giants have turned their faces towards Indian market. Government has also given incentives to the foreign investors due to which the massive increase in FDI in the automobile sector is being experienced in the country. Moreover after liberalization policy, Indian states have started competing for FDI. As infrastructure plays important role in attracting foreign direct investment, the states like Gujarat, Karnataka, Haryana, Maharashtra, Tamil Nadu etc. are providing high level infrastructure facilities to the global players.
6) Since 1991 the number of registered vehicles in India has increased tremendously and the two wheeler category is dominating in the registered motor vehicles in the country in all the years, compared with rest of the categories. The analysis shows that the growth of registered motor vehicles during 1991 to 2012 has been 10.58 percent (Table 3.8). Maharashtra has the maximum share in registered vehicles (PVs and CVs) with 13.44 percent. Delhi and Kerala has been placed on the second and third positions with 10.40 and 8.69 percent share respectively. Kerala (8.69 percent) is followed by Tamilnadu (8.44 percent), Gujarat (8.16 percent), Karnataka (6.95 percent), Andhra Pradesh (6.65 percent) and Uttar Pradesh (5.67 percent). The share of the states like Haryana and Rajasthan has been below five percent (Table 3.9).

7) The growth of R&D expenditure in the automobile industry in India has been 13.97 percent during the first phase of liberalization (1991-92 to 2001-02). The expenditure on research and development show negative growth during the period 1997-98 to 1999-2000 as the industry has been going through the difficult economic and political conditions. Moreover, exports also show the negative trend during the above mentioned period of three years. During the phase-II, the expenditure on research and development has grown at the rate of 27.38 percent, revealing the innovativeness and modernization occurring in the Indian automobile industry. In the year 2007-08 the Indian automobile firms have spent 140.89 percent more expenditure on the research and development in comparison to 2006-07. It might be due to the increasing faith of vehicle manufacturers in the Indian automobile market. In fact, the increasing competition in the industry has given a boost to the research and development as the firms are finding it the only way to survive in the market. The overall growth from 1991-92 to 2012-13 has been 19.01 percent which is impressive (Table 3.10).

8) The automobile industry is providing not only direct employment but indirect employment generation is much more than direct employment. The indirect employment includes the employment of dealers, workers in service stations, in components manufacturing and in the manufacturing of tools etc. The direct employment means the number of persons directly employed in the automobile firms. The contribution of automobile industry has been more in indirect employment as compared to direct employment that is evident from the fact that during 1997-98 to 2012-13 the growth in direct employment has been only 0.2 percent as against 3.63 percent growth in indirect employment (Table 3.11). The rate of growth of
employment is far behind the rate of growth of production indicating jobless growth in automobile industry in India. Whatever employment has increased that is indirect employment during the years under study. It has been due to the capital intensive nature of the industry.

9) The increasing installed capacity of automobile industry in India is an indicator of increasing demand and production. The installed capacity has grown at the rate of 11.10 percent during 1997-98 to 2012-13 (Table 3.12). The growth rate is more (12.21 percent) during the second phase of eight years (2005-06 to 2012-13) due to the better performance of the economy and entry of some more players in the industry.

10) Inter-firm analysis of the production indicates that Tata Motors has more growth (21.06 percent) in the production of passenger vehicles followed by Maruti Suzuki (10.11 percent) and Mahindra & Mahindra (9.05 percent) during the period under study (Table 4.1). Hindustan Motors is the only firm in the passenger vehicle category that experiences the negative growth during the same period as the firm has been regularly losing its market share. In the commercial vehicles category, Mahindra & Mahindra has the highest production growth (22.52 percent) followed by Tata Motors (9.31 percent) and Ashok Leyland (7.50 percent). Same as passenger vehicles, in commercial vehicles also Hindustan Motors faces negative growth (-2.15 percent). Due to favorable economic conditions, all the firms under study except Hindustan Motors perform better during the second phase of study as compared to the first phase (Table 4.2).

11) Just like production, Tata Motors has the highest growth rate (20.91 percent) in the domestic sale of passenger vehicles (Table 4.3) followed by Maruti Suzuki (9.25 percent) and Mahindra & Mahindra (8.83 percent). The highest growth of Tata Motors can be attributed to the success of the Sumo, Safari, Indigo and Indica models of the firm. Hindustan Motors has been facing fall in the domestic sale throughout the period under study with some exceptions as the firm finds it difficult to cope up the continuous increasing competition. On the other hand, Mahindra & Mahindra has the highest growth in the commercial vehicles segment (21.73 percent) in the domestic sale (Table 4.4) followed by Tata Motors (8.44 percent) and Ashok Leyland (6.58 percent). It is interesting to note that in absolute numbers of domestic sale, Mahindra
& Mahindra is far behind than its near competitor, Tata Motors. It shows that the market share of Tata Motors in commercial vehicles is quite higher than Mahindra & Mahindra.

12) Mahindra & Mahindra has the highest percentage growth (14.45 percent) of exports in the passenger vehicles segment followed by Maruti Suzuki (11.49 percent) and Tata Motors (8.09 percent) during 1994-95 to 2012-13 (Table 4.5). The presence of Hindustan Motors in the export market of passenger vehicles has been almost negligible. Mahindra & Mahindra and Maruti Suzuki have performed tremendously well during the second phase of the study as WTO negotiations has led to the fall in the tariff rates in the foreign markets of Mahindra & Mahindra and the success of the models like Maruti 800, Alto, A-Star in the export market has led to the high growth of exports for Maruti Suzuki. Further, Mahindra & Mahindra continues its outstanding performance in the commercial vehicle segment also as the growth of export has been 43.73 percent during the period under study (Table 4.6). This high growth of the firm is due to the regular improvement in the vehicles, favorable tariff policy, strong manufacturing strategies and exploring new markets. Mahindra & Mahindra is followed by Ashok Leyland (11.78 percent) and Tata Motors (11.46 percent). Similarly like passenger vehicles, the presence of Hindustan Motors in the export market has been insignificant.

13) In the passenger vehicles segment, the highest value of domestic sale multiplier $a_1$ depicts that domestic sale increases $a_1$ times that of previous value. It (1.21) has been seen in case of Tata Motors followed by the two firms i.e. Mahindra & Mahindra and Maruti Suzuki each having the value of 1.09 of $a_1$. The $a_1$ is lowest in case of Hindustan Motors (0.92). High positive correlation has been observed for all the firms except Hindustan Motors for which sale is showing negative correlation coefficient of 0.937 that shows decreasing sale with time. On the other hand, high value of export multiplier $b_1$ (1.14) has been observed in case of Mahindra & Mahindra followed by Maruti Suzuki and Tata Motors. Same as the domestic sale, correlation coefficients has been high for all the firms except for Hindustan Motors (Table 4.7).

14) The analysis of firms under study reveals with the passage of time, domestic sale of commercial vehicles has been showing upward trend due to positive values of $a_0$. In case of Mahindra and Mahindra, domestic sale multiplier ($a_1$) has been the highest
(1.22) followed by Tata motors (1.08) and Ashok Leyland (1.06). The domestic sale of commercial vehicles produced by Hindustan Motors decreases by 0.96 times in comparison to previous year value. The correlation coefficient of Hindustan Motors also depicts negative value (-0.193) which reveals that time and domestic sale of commercial vehicles both are negatively correlated. In export time analysis of commercial vehicles also, Mahindra and Mahindra has shown leading trends with export multiplier (b_1) value of 1.44, followed by Ashok Leyland (1.12) and Tata motors (1.11) respectively (Table 4.9).

15) The inter-firm analysis indicates that capital productivity is an important variable to measure the productive competence of any firm. It shows the amount of output one unit of the capital would cause. The average capital productivity has been highest 8.6 in case of Maruti Suzuki during the period under study. It is lowest in case of Ashok Leyland i.e. 1.34. Even the average capital productivity of Hindustan Motors is higher (2.91) as compared to Ashok Leyland. It is important to note that the growth rates of capital productivity in all firms come out to be negative during the period under study. During the first phase, the growth of capital productivity of Mahindra & Mahindra has declined more (-16.40 percent) followed by Maruti Suzuki (-16.13 percent), Hindustan Motors (-11.44 percent), Ashok Leyland (-10.69 percent) and Tata Motors (-9.23 percent). The second phase also shows the similar picture where Tata Motors is the most affected firm with growth of -13.09 percent. Further, it is interesting to find out that the overall capital productivity of Maruti Suzuki has declined at a faster rate (-5.42 percent), yet it has been high in comparison to the other firms under study (Table 5.1). The reason of declining capital productivity might be the increasing capital intensity of the automobile industry. As more and more capital is employed, marginal productivity tends to decline. Moreover, the firms might be investing more capital on the improvement of the product. The percentage of research and development expenditure in the total investment is also on the rise for example, in the year 2009-10, Maruti Suzuki has spent Rs.1733 million on research and development and the figure increased to Rs. 5146 million in the year 2012-13.

16) Labor productivity is another variable to measure the productive competence of any firm. Labor productivity shows the amount of output one unit of labor is responsible for. Maruti Suzuki undoubtedly has the highest labor productivity (Table 5.2). The main reason behind this is the over utilization of resources by the firm. The
labor productivity of Maruti Suzuki illustrates the gradual rising trend though it has declined in the last two years. The labor productivity figures of Tata Motors and Mahindra & Mahindra though are very less as compared to Maruti Suzuki but show rising trend over the years under study. The labor productivity of Hindustan Motors is the lowest of all the sampled firms and depicts declining trend. It is important to note that while capital productivity of all the firms has been declining, labor productivity is increasing except Hindustan Motors. Mahindra & Mahindra has the highest growth of labor productivity (12.70 percent) followed by Tata Motors (8.4 percent) and Ashok Leyland (5.55 percent). Though Maruti Suzuki has the highest average labor productivity, but its growth rate (1.17 percent) has been a bit better than Hindustan Motor’s (-1.61 percent) which is lowest of all the firms. The labor productivity of all the firms tend to increase as the labor is getting more capital for production which is evident from the capital labor ratio of the firms under study.

17) Capital to labor ratio measures the ratio of capital to labor employed. It is used to measure a firm’s degree of capital intensity. The ratio shows rising trend for all the firms except Hindustan Motors that has shown declining ratio over the period of study. Tata Motors enjoys the highest growth of the ratio (20.94 percent) followed by Mahindra & Mahindra (16.47 percent), Ashok Leyland (13.73 percent) [Table 5.3]. It is interesting to note that though the capital labor ratio of Maruti Suzuki has been much higher as compared to other firms under study, but the growth rate is only 4.88 percent. The rising trend in the ratio depicts the increasing capital intensity of the selected firms.

18) The average capacity utilization of Maruti Suzuki has been exceptionally high (120.15 percent) followed by Ashok Leyland (77.51 percent), Mahindra & Mahindra (73.25 percent) and Tata Motors (64.1 percent) during the period under study (Table 5.4). Hindustan Motors is suffering with very low capacity utilization (32.79 percent) which is mainly because of fall in its domestic sale and production. During 2003-04 to 2012-13, the average capacity utilization of all the firms has improved as compared to 1993-94 to 2002-03, except Hindustan Motors. Maruti Suzuki is maintaining more than hundred percent capacity utilization for sixteen years out of twenty years of study. It can be a matter of concern if it leads to breakdowns in the production units or cause labor unrest.
19) The inter-firm comparison of the financial performance depicts that the highest average current ratio is attained by Ashok Leyland (3.2) during the first phase of the period under study (Table 5.7). All other firms depict the current ratios less than ideal ratio (1:2). Lowest current ratio is in the case of Maruti Suzuki (1.33). During second phase, the average current ratio has been adversely affected in all the cases except Maruti Suzuki where it has increased from 1.33 to 1.61. The main reason of the improvement might be the increase in the demand for vehicles of Maruti Suzuki. The lowest average current ratio during the entire period of study is found to be in the case of Tata Motors (1.22), that indicates the short term financial crisis of the firm. Ashok Leyland is near to the ideal current ratio with value 2.3 over the period under study.

20) The highest average quick ratio during the period under study turns out to be of Ashok Leyland (1.51) followed by Mahindra & Mahindra (1.08) and Maruti Suzuki (1.06). Maruti Suzuki has performed quite well as compared to other firms during second phase of the study. It has been mainly due to the fact that in most of the years during this decade, the quick ratio of the firm is above unity. Hindustan Motors is again at the lowest position with average quick ratio of 0.7. The average quick ratios of Hindustan Motors and Tata Motors reveal that the both the firms have been facing short term financial crisis (Table 5.7).

21) The net working capital ratio is quite low in all firms under study (Table 5.7). Tata Motors and Hindustan Motors have the lowest average net working capital ratio (0.10). The highest among all firms is that of Ashok Leyland (0.37) that seems to be more reliable in making their short term payments as compared to other firms. Except Maruti Suzuki, all firms have adverse impact on this ratio during second phase of period under study. Maruti Suzuki has faced acute shortage of liquidity during the three years of first phase i.e. 1993-94, 1994-95 and 1995-96, as the net working capital ratio is -0.11, -0.59 and -0.49 respectively. It might be due to the increased demand for vehicles of Maruti Suzuki during the period, due to which it invested more and kept less as working capital.

22) The debt equity ratio shows the adverse situation of Hindustan Motors as the firm possesses on an average one and half time more debt as compared to equity (Table 5.8). The lowest debt equity ratio during the period under study, 0.25 has been enjoyed by Maruti Suzuki. This figure is as low as 0.07 during the second phase of the
study. One can interpret that with the passage of time, Maruti Suzuki has reduced its dependence on debt. It is notable that the debt equity ratio of all the firms has reduced during the second phase as compared to first phase of the period under study.

23) The highest proprietary ratio has been enjoyed by the Maruti Suzuki (0.80) and lowest by Hindustan Motors (0.37) over the period under study. High proprietary ratio indicates that the firm has a sufficient amount of equity to support the functions of business. Conversely, a low ratio indicates that business may be making use of too much of debt than equity. The high proprietary ratio for Maruti Suzuki reveals the fact that it is using less debt for the operations of the firm, whereas Hindustan Motors is using too much debt. This fact has been also supported by debt equity ratio (Table 5.8).

24) The analysis indicates that the profitability ratios of all the firms under study are low. In the era of competition, the firms do not pursue the objective of profit maximization, in fact they cannot. There is multiplicity of objectives that the firms follow. However, a firm that has a higher gross profit margin than its competitors is considered to be more efficient. The highest gross margin ratio seems to be in the case of Mahindra & Mahindra (0.11) for the period under study. Maruti Suzuki and Tata Motors (0.10) are quite close to Mahindra & Mahindra. The low profitability ratio of Maruti Suzuki during the first phase (0.08) has been due to the loss in production and domestic sale in 2000-01 and 2001-02. Surprisingly, Hindustan Motors depicts higher ratio (0.08) than Ashok Leyland (0.05) over the years of study (Table 5.9).

25) Same as the gross profit margin ratio, Mahindra & Mahindra has the highest net profit margin ratio (0.07) followed by Maruti Suzuki (0.06). Hindustan Motors though depicted positive gross profit margin ratio, but has negative (-0.02) net profit margin ratio. Other than Hindustan Motors, all firms have seen upsurge in profits during second phase of study. In the case of Hindustan Motors, the operations at Uttarpara plant were adversely affected due to lower volumes of Ambassador and Winner and less working capital. Interestingly, Tata Motors and Ashok Leyland show the same net profit margin ratio (0.04) during the period under study (Table 5.9).

26) Maruti Suzuki is more efficient in using its fixed assets as the firm has the highest ratio over the years (4.30) followed by Mahindra & Mahindra (4.19). It is important to note that Hindustan Motors has better position (3.24) than Tata Motors (2.9) and
Ashok Leyland (2.7) so far the efficiency of the fixed assets is concerned. In the year 2012-13, the said ratio is 6.08 - the highest over the years- as Hindustan Motors entered in agreement with Isuzu Motors India Pvt. Ltd. for manufacturing SUVs and pickup trucks in India and domestic sales also increased during the year (Table 5.10).

27) Maruti Suzuki performs better in the capital employed turnover ratio as the firm has the highest ratio (2.22) followed by Hindustan Motors (1.79). It is interesting to see Hindustan Motors at the second position. It is due to the fact that the firm has been decreasing the capital employed throughout the period of study with falling domestic sale (Various Annual Reports: Hindustan Motors). Ashok Leyland has lowest ratio (1.33) than all the other firms (Table 5.10).

28) As high asset turnover ratio depicts productive assets for any firm, Maruti Suzuki has the highest ratio (2.1) followed by Hindustan Motors (1.74) which is marginally better than Tata Motors (1.73) during the period under study. The ratio is as low as 1.42 for Maruti Suzuki in the year 2011-12 as the firm has faced the negative sale growth in production and domestic sale both. Except Maruti Suzuki, all other firms perform better in the second phase of the study (Table 5.10).

29) Current assets turnover ratio indicates the effectiveness of a firm in using its current assets. Like other turnover ratios, Maruti Suzuki has the highest ratio (3.57) followed by Hindustan Motors (2.78). Ashok Leyland has maintained its lowest position (1.84) though the firm has enjoyed maximum ratio (2.98) in the year 2011-12 as the domestic market witnessed a number of developments that has an impact on the sales performance (Table 5.10).

30) Hindustan Motors, not performing well in terms of all other ratios- seems to have achieved satisfactory turnover ratios. Though Maruti Suzuki is at the top with highest all four turnover ratios, Hindustan Motors is at the second position in terms of three ratios i.e. asset turnover ratio, capital employed turnover ratio and current asset turnover ratio. Ashok Leyland is at the lowest position in all the four turnover ratios. The frequency of better performance in different ratios of the firms under study over the years depicts that Maruti Suzuki performs better in seven ratios, Ashok Leyland and Mahindra & Mahindra in two each. Tata Motors and Hindustan Motors do not lead in any ratio and frequency is zero. So Maruti Suzuki is the strongest firm financially as compared to the other firms under study (Table 5.10 and 5.11).
31) The analysis of the marketing strategies of the firms under study depicts that Mahindra & Mahindra has the better product line as compared to the other firms under study (Table 6.1) as the firm produces seven different categories of vehicles. It is the only firm among the sampled firms that also produces two wheelers. Tata Motors produces six categories of vehicles while all other firms produce three categories of vehicles each. It is interesting to note that Maruti Suzuki produces only passenger vehicles while Ashok Leyland produces only commercial vehicles and rest of the three firms produce both passenger as well as commercial vehicles.

32) In the passenger vehicles category, Maruti Suzuki has the maximum (eight) strong factors in the product strategy (Table 6.7) followed by Tata Motors (7 factors) and Hindustan Motors (6 factors). Mahindra & Mahindra has the lowest 5 strong factors. Moreover, Hindustan Motors has the highest six weak factors in the product strategy followed by Mahindra & Mahindra (5 factors). Further, in the commercial vehicles segment, Mahindra & Mahindra has the maximum seven strong factors in the product strategy whereas Tata Motors and Ashok Leyland share the same number i.e. six. Ashok Leyland has highest weak factors in the product strategy as compared to the rest of the firms under study.

33) Maruti Suzuki dominates in low price passenger vehicles as nine types of passenger vehicles are produced by it in price range of less than five lakhs. On the other hand, Tata Motors produces four while Mahindra & Mahindra and Hindustan Motors produce one each in the same segment. In the price range of five to ten lakhs, Mahindra & Mahindra is dominating as seven types of passenger vehicles produced by it falls into this category. Another important point to note is that in the highest price range (40–50 lakhs), only Hindustan Motors is operating. Thus, it is Maruti Suzuki that has better price range as it produces the vehicles in five above mentioned price ranges. On the other hand, Tata Motors has dominated the automobile market in commercial vehicles as it has its presence not only in the low priced vehicles but also in the high priced medium and heavy commercial vehicles (M&HCVs). So the marketing strategy of Tata Motors has been targeting the low, medium and high price segments. On the other hand, Ashok Leyland has concentrated comparatively more on the medium price range vehicles with small presence in the high price segment also. In the commercial vehicles category, Mahindra and Mahindra is the leader in the
vehicle price range of 0-5 lakhs and Hindustan Motors has only one vehicle in the same price range (Table 6.14 and Table 6.15).

34) The inter-firm comparison of pricing strategy of selected firms indicates that so far the passenger vehicles are concerned, the price turns out to be the most important factor influencing the purchasing decisions of the consumers of all the firms under study except Hindustan Motors. Discounts and concessions also affect moderately the buying behavior of Tata Motor’s and Mahindra & Mahindra consumers while the consumers of Maruti Suzuki and Hindustan Motors do not give any weightage to discounts and concessions. In case of commercial vehicles, only price has turned out to be the most important factor in all the firms except Tata Motors. Discounts and concessions are the weak factors of the pricing strategy of all the firms producing commercial vehicles (Table 6.18).

35) Except Hindustan Motors, the distribution expenditure of all the firms under study has increased (Table 6.19). Mahindra & Mahindra has the highest growth of distribution expenditure (21.51 percent) followed by Tata Motors (19.76 percent) and Maruti Suzuki (9.74 percent). It is interesting to note that there is fall in the distribution expenditures of Mahindra & Mahindra and Tata Motors in the year 2008-09 due to recession in the industry but the same tend to increase in case of Maruti Suzuki and Hindustan Motors as the firms seems to be trying to intact the domestic sale by spending more on distribution.

36) Tata Motors has the highest number of dealers (2609) followed by Maruti Suzuki (1204), Ashok Leyland (365) and Mahindra & Mahindra (300) as on March 2013 (Table 6.20). On the contrary, Maruti Suzuki has the highest number of service stations (2987) followed by Tata Motors (2699), Mahindra & Mahindra (922) and Ashok Leyland (198). The lowest number of dealers (100) and service stations (140) are found out to be in the case of Hindustan Motors.

37) Maruti Suzuki has the highest three factors in the list of strong factors of distribution strategy of passenger vehicles followed by Mahindra & Mahindra (2 factors). Tata Motors and Hindustan Motors have one factor each in the strong factors. In the commercial vehicles segment, Tata Motors has the highest strong factors in the distribution strategy followed by Mahindra & Mahindra & Ashok Leyland (Table 6.27). Hindustan Motors has no strong factor in the distribution
strategy of commercial vehicles and Ashok Leyland has highest weak factors in the distribution strategy.

38) In the passenger vehicles, promotion strategy, only Maruti Suzuki has one strong factor i.e. brand reputation and no other firm under study has any strong factor. Advertisement and promotion is the weak factor for all the firms while recommendation is moderate factor for Mahindra & Mahindra and Hindustan Motors and weak factor for rest of the two firms. Surprisingly, all the factors of promotion strategy come under the weak factors for Tata Motors. The brand reputation is the most important factor in buying behavior of commercial vehicles segment as it has been strong factor for Tata Motors, Mahindra & Mahindra and Ashok Leyland. Other two factors i.e. advertisement and promotion and recommendation are weak factors for Tata Motors, Mahindra & Mahindra and Ashok Leyland. In the case of Hindustan Motors, no factor has turned out to be strong and all factors are weak (Table 6.30).

39) In 1990-91, the highest amount of marketing expenditure is incurred by Ashok Leyland (Rs. 40.33 crores) followed by Tata Motors (Rs. 12.81 crores) and Maruti Suzuki (Rs. 10.51 crores). In 2001-02, the scenario has changed as highest amount of expenditure is incurred by Maruti Suzuki (Rs. 206.3 crore) followed by Tata Motors (Rs. 163.83 crore) and Ashok Leyland (Rs. 156.11 crore). During 2012-13, Tata Motors is at the top in marketing expenditure with Rs. 1488.73 crores. It is followed by Ashok Leyland (Rs. 1050.4 crores) and Mahindra & Mahindra (Rs. 630.6 crores). Maruti Suzuki is at fourth position with Rs. 272.3 crore. Table 6.31 further depicts the growth of marketing expenditure of the firms under study. The highest growth of marketing expenditure has been in the case of Mahindra & Mahindra (28.71 percent) followed by Tata Motors (26.31 percent) from 1990-91 to 2012-13. The lowest growth rate is in the case of Hindustan Motors (6.48 percent) during the same period. The marketing expenditure has increased at a higher rate during first decade (1990-91 to 2001-02) as compared to the second decade (2002-03 to 2012-13) in all the firms except Ashok Leyland where it is less. The growth of marketing expenditure is almost half in the second decade in case of Maruti Suzuki and almost similar trend has been shown by the marketing expenditure of Mahindra & Mahindra (Table 6.31).

40) In order to find out the impact of marketing expenditure on domestic sales, the domestic sale has been regressed against marketing expenditure and the regression
equation has been formed. The value of R square is highest (0.964) in the case of Mahindra & Mahindra followed by Tata Motors (0.948) and Ashok Leyland (0.899). It is surprising to note that the value of R Square is only 0.367 in case of Maruti Suzuki revealing the fact that 36.7 percent variation in the domestic sale is due to the marketing expenditure. The coefficient of marketing expenditure comes out to be approximately 1887 suggesting that with one unit increase in marketing expenditure of Maruti Suzuki, domestic sale on an average increases by 1887 units. Maruti Suzuki has the highest coefficient of marketing expenditure among the firms under study, followed by 582.56 of Mahindra & Mahindra and 447.06 of Tata Motors. It is lowest (76.14) in case of Ashok Leyland (Table 6.32).

41) The maximum amount of advertisement expenditure has been incurred by Ashok Leyland (Rs. 39.03 crore) followed by Tata Motors (Rs. 15.01 crore) and Hindustan Motors (Rs. 8.12 crore) in 1992-93. Maruti Suzuki has spent least on advertising i.e. Rs. 1.15 crore. It is interesting to note that within a decade, Maruti Suzuki has increased its advertisement expenditure by 145 times achieving first rank (Rs. 167.6 crore) followed by Ashok Leyland (Rs. 121.4 crore) and Tata Motors (Rs. 111.55 crore) in 2002-03. During 2012-13, maximum advertisement expenditure is incurred by Tata Motors (Rs. 792. 67 crore) followed by Ashok Leyland (Rs. 353.7 crore) and Maruti Suzuki (Rs. 353.6 crore). Further, Tata Motors has the highest growth rate of advertisement expenditure (28.98 percent) followed by Maruti Suzuki (26.94 percent), Mahindra & Mahindra (22.49 percent) and Ashok Leyland (13.35 percent). The lowest growth has been observed in case of Hindustan Motors (2.11 percent). Except Ashok Leyland, all other firms depict better growth during the first phase of study as compared to the second phase. Maruti Suzuki has enjoyed the tremendous growth in advertisement expenditure (61.91 percent) during phase –I due to 238.26, 233.89 and 146.53 percent growth rate in the years 1993-94, 1995-96 and 1996-97 respectively as the firm introduced some new models and has conducted training programs for the dealers during the above mentioned years. Surprisingly, the advertisement expenditure of Maruti Suzuki has grown at the rate of only 3.82 percent during the second phase which is the second lowest after the Hindustan Motors growth rate. Hindustan Motors is the only firm that has shown negative growth of advertisement expenditure in the second phase of the study (Table-6.33)
42) The domestic sale has been regressed against advertisement expenditure (Table 6.34). The value of R square is highest (0.981) for Mahindra & Mahindra followed by Tata Motors (0.904), Maruti Suzuki (0.734) and Ashok Leyland (0.711). The value of coefficient of advertisement expenditure equal to approximately 2082 suggest that with one unit increase in advertisement expenditure of Maruti Suzuki, domestic sale on an average increases by 2082 units approximately. The same coefficient of Mahindra & Mahindra has been 1355.2 followed by Tata Motors (800.4) and Ashok Leyland (138.1).

**Section-III**

**Recommendations**

The firm wise recommendations based on the analysis of the study have been given below:

**Maruti Suzuki**

1) The average capacity utilization of Maruti Suzuki has been more than hundred percent and the firm has regularly been over-utilizing the factors of production. The excessive use of production capacity should be avoided as it creates burden on the factors of production, that may cause breakdown in the production process and cost may also increase. It can also lead to labor unrest.

2) The product line of Maruti is limited, even in the passenger car segment Maruti Suzuki has not yet entered in the premium segment. Moreover, like other domestic competitors (Tata Motors & Mahindra & Mahindra) Maruti Suzuki has not entered in the commercial vehicles category so a large vehicle segment is still untouched by the Maruti Suzuki and that should be covered.

3) More concentration is required on research and development to upgrade the vehicles as regular modifications are required in the vehicles and this is the only way to tackle the increasing competition in the Indian automobile industry and to come up to the expectations of the customers.

4) Maruti Suzuki Should set up another production unit as the firm is already over utilizing its production capacity and the chances to meet the increased demand in
future are less, moreover it is always advisable to have some reserve capacity in the production units so as to meet the unexpected demand.

5) While purchasing a vehicle of Maruti Suzuki, advertisement and promotion has been given least priority. So it is important to make advertisement and promotion more attractive as per the expectations of the consumers. Same as advertisement and promotion, the discounts and concessions should also be made effective.

**Tata Motors**

1) As per the results of the primary survey conducted on the customers of the selected firms, Tata Motors has been considered as a trustable passenger car brand by very few customers. So Tata Motors should upgrade its brand image to a reliable personal vehicle.

2) It is important to use the production capacity to its maximum to keep the cost under control. In the year 2012-13, more than half of the production capacity is underutilized and that depicts inefficiency of the firm in utilization of productive resources. Thus, the firm should increase the capacity utilization in the coming years. For this, it is necessary to find out the reasons for underutilization and draft proper policies.

3) The customer requirements are continuously changing in the Indian automobile industry. Moreover, with the entry of global players in the industry, the expectations of the customers have increased. So it is important for every firm to cope up with the expectations of customers for long term survival in the industry. Tata Motors should upgrade the vehicles on regular basis and according to the requirements of the consumer. This is the only way to sustain the market share and maintain the customer loyalty. Not only this, there is a need to use the methods to reduce the product development time because of greater variety demanded by customers.

4) Every customer wants his or her vehicle “value for money”, this shows the satisfaction of the consumer when they spend money. Tata Motors should focus more on the 'Value for Money' positioning, especially in the soon to be launched commercial vehicles.
5) Tata Motors exports the vehicles in the countries like Spain, UK, Italy, Greece, Australia, Bangladesh etc. and is exploring some more countries for exports. It is not possible to establish the vehicles in the potential foreign markets without technology upgradation and new innovative features. So technology appreciation is required on regular basis if the firm wants to establish its vehicles (commercial and passenger) in the foreign markets.

6) The ratio analysis has depicted that the firm is characterized by debt burden, liquidity crunch and low utilization of assets. It is therefore suggested that dependence on debt should be decreased gradually along with increasing utilization of assets. It can be done by making capital and labor more productive. The firm can also find out the possibility of increasing equity capital.

7) Capital and labor are two vital factors of production. The firm should make some efforts to increase the productivity of these two factors so that more production can be done. With the upgradation of the technology, productivity should be enhanced particularly capital productivity.

**Mahindra & Mahindra**

1) Mahindra & Mahindra initiated the production of passenger car segment with Renault when they launched Logan. Later, the firm launched few more cars in the same category. Though the firm is the market leader in the MUVs category but in the passenger car segment the firm has limited presence. So Mahindra & Mahindra should increase the product depth in the passenger cars category.

2) Mahindra & Mahindra utilizes about seventy percent of its installed capacity. Thus capital and labor productivity is less. The firm should increase the capacity utilization up to considerable level in near future to avoid wastage of resources and to raise the capital and labor productivity.

3) Mahindra & Mahindra has the highest growth in the export in passenger vehicles and the commercial vehicles both. It exports in about 35 countries but the exported units are less in comparison of near rivals. So the firm should identify some new destinations for its exports to increase revenue from the overseas market.
4) The after sale services are need to be improved by the firm as 16 percent consumers rate these services as below average and 10 percent as poor. The number of dealerships and service stations of Mahindra and Mahindra are very less as compared to Maruti Suzuki and Tata Motors. So the firm should increase the number of dealership and service stations so that better after sale services can be provided to the customers.

5) Discounts and concessions provided by the firm in commercial vehicle segment is not so effective as the customers do not give weightage to this factor when they purchase a commercial vehicle produced by Mahindra & Mahindra. In passenger vehicle segment also, discounts and concessions moderately affect the buying behavior of customers. So discounts and concessions should be made attractive for the customers.

**Ashok Leyland**

1) Ashok Leyland’s product diversification is limited up to commercial vehicles only, in passenger vehicle category the absence of the firm is notable. Thus a large segment of the market is untouched by Ashok Leyland. So Ashok Leyland should widen its product line by entering in the passenger vehicles segment.

2) The wide spread network of dealerships and service stations help the customers to get better after sale services provided by the firm and that increases the customer satisfaction. Ashok Leyland has very less number of dealerships and service stations as compared to other rivals. The firm should increase the dealerships and service stations so that the customer services can be provided properly and spare parts should be made available.

3) Ashok Leyland exports to more than forty countries and the growth of exports is second highest after Mahindra & Mahindra among the sampled firms over the period under study. Inspite the high growth rate of exports, the exported units are less as compared to Tata Motors and Mahindra & Mahindra. So the firm should focus on marketing strategies that create more demand in foreign market. There is a need to explore the main determinants of export competitiveness by the firm and plan accordingly.
4) The firm should develop a perception in the minds of consumer that Ashok Leyland’s products are value for money. That would help to increase the customer satisfaction.

5) Due to increasing competition, there is tremendous need for the product improvement at reasonable cost and that is possible only with research & development. Expenditure on the research and development should be increased as the firm’s nearest competitor Tata Motors spends about 480 percent more expenditure on the R&D and Mahindra & Mahindra spends about 250 percent more on research and development in the year 2012-13.

**Hindustan Motors**

1) Hindustan Motors has the lowest number of dealerships and service stations among the firms under study. This is a hindering factor in customer services provided by the firm that leads to customer dissatisfaction. So the number of dealers and service stations should be increased.

2) The firm has the lowest growth and amount of the marketing expenditure as compared to sampled firms. On the other hand, the expenditure on distribution show declining trend over the years under study. This may cause a serious setback to the sale of the firm, so there is a need to increase the marketing and distribution expenditure to compete in the industry and to increase the demand for vehicles.

3) The expenditure on the research and development need to be improved drastically because in the era of competition without regular improvements in the products it is not possible to survive in the market particularly when the rival firms are spending a considerable amount on research and development.

4) Firm’s product line is very small. It produces very few vehicles in the market with the help of Mitsubishi. Thus, the firm is losing market share with the time and the need to broaden the product line is urgent.

5) The firm maintains 150 percent more debt than its own funds. That depicts the acute shortage of funds in the firm and that could be a threat to the solvency of the firm in the near future. So the Hindustan Motors should decrease the dependence on debt gradually.
6) The expenditure on advertisement need to be increased as in the era of competition, when the rival firms are spending huge amount on the advertisement, Hindustan Motors should also increase the expenditure on the advertisement.

7) The profit is the core objective and essential for the survival of any firm. The Hindustan Motors should work on reducing cost and on increasing the demand of the vehicle so that the firm could come out of the loss.

8) The firm is using only 10 percent of its production capacity in the year 2012-13 and this is the major reason of high per unit cost that results loss. So the firm should use the production capacity effectively and should approach towards efficient use of resources.

9) It has been found that labor productivity of Hindustan Motors is the lowest among the sampled firms and capital productivity is also less during the period under study. Recent research in economic history gives examples of countries that obtain 40 to 70 percent growth by dynamics of productivity factor. Thus there is a need to build an integrated policy of productivity growth. There should be a specific provision for say minimum of 15-20 percent contribution at least from productivity growth to the output growth rate. The prospective plans of the firm should provide for rising portion of productivity contribution to output/income growth rate.

Thus, the automobile industry has emerged as ‘industry of industries’ in India. The entry of global auto players in India has significantly altered the automobile manufacturing scenario in the country. The decade of nineties has major transformation of Indian car/automobile industry, from a protected business with one world-class manufacturer to a landscape that includes most of the world’s major players as well as some emerging domestic firms for significant piece of an expanding market. In the process, the industry has also leaped forward technology, driven by such factors as intense competition, demanding consumer preferences, Government policies and global strategies of various players. The Government can facilitate the Indian automobile industry in becoming more competitive by taking steps such as structural fiscal reforms, cut in import duties on materials and capital goods, promotion of research and development and foreign direct investment, training facilities, research backed negotiation of foreign trade agreements, roadmap for harmonizing emission norms across the country and infrastructural improvements.
Industry, on the other hand, should improve its research and development capabilities and marketing research.

Indian automobile industry is facing many challenges and risks. The biggest ever challenge that the industry now faces is of ‘competitiveness’. But there is nothing to lose hope about it. The great saint poet Thiruvalluvar said,“ Thou canst conquer even the whole world if you chose the proper time and proper objectives.” Therefore, Indian automobile industry should chalk out proper strategies to change challenges into opportunities. The road ahead of us in the new century is going to be different from the track travelled hitherto. Competition will be growing as never before, challenges will be more and the solution lies in converting challenges into opportunities through proactive strategies, better financial administration, human resource management and technology upgradation.