CHAPTER I

INTRODUCTION

Industrial development is the key factor for rapid economic development of any nation. It is true in the case of developing economies since it would help combating many economic evils which they have been facing. Rapid industrialization results in increased production of both consumer and capital goods. It accelerates economic growth and increase national income. It is the only means of raising the standard of living of people substantially and also permanently. Without industrial development, no country in the world could reach the level of per capita income of developed countries. India being a developing country, its development mainly depends upon the growth of various industries. Industrial development in India after Independence can be categorized into three phase on the basis of the time periods:

- In the **first phase, during 1947 - 1981** the government increased its control over different sectors.

- In the **second phase, during 1981 - 1991** the government slightly relaxed its control.
- In the **third phase, from 1991 to the present**, the government appears to be inclined to liberalise the economy.

The Industrial Policy of the Government of India had a long history much before Independence. The industrial policy of the British India Government was mostly based on *adhocism* influenced by the dictates of the British Parliament. When the hints of Independence were given in early 1940s, discussions started on Industrial Policy of the independent Government of India. There were mainly two schools of thought – one the Gandhian pinning its faith on emphasis on cottage and small-scale industries; and the non-Gandhian emphasising mostly on large-scale industry and sophisticated technology. A compromise was attempted through the 1948 Industrial Policy Resolution wherein the sectoral classification of large-scale industry is given and at the same time, role of cottage and small-scale industries was emphasized. The Industrial Policy of India is guided by the two industrial policy resolutions adopted on the floor of Parliament in 1948 and 1956 and the Industrial Policy Statements were

The Industrial Policy Resolution of 1948 earmarked the beginning of the evolution of the Indian industrial policy. The resolution not only defined the broad contours of the policy, but also, it delineated the role of the States in industrial development both as an entrepreneur and as an authority. The successive policy resolutions also reiterated this basis tilt in favour of the public sector. The resolution bargained for the steady increase in production and its equal distribution. The Industrial Policy Resolution of 1956 gave the public sector a strategic role in the economy. It categorized the industries which would be exclusively the responsibility of the state or would progressively come under the state control, and others. Earmarking the pre-eminent position of the public sector, it envisaged the private sector co-existing with the state and thus attempted to make the policy framework flexible.

The Indian Industrial Policy framework began to liberalized in the late 1970s. The Industrial Policy Statement of 1980 laid emphasis on the need for a competitive domestic market, technological upgradation and modernization of the industrial sector. This policy laid the foundation for an increasingly competitive export base and attracted large foreign investment in high-technology area\(^2\). This process accelerated with the major economic reforms initiated in 24 July 1991. India pursued an import-substitution and mixed public sector licensing economy. But, the major areas like steel, heavy engineering, infrastructure, telecommunications, power and basic chemicals were reserved for the public sector. The areas open to the private sector were tightly monitored through licenses and quantitative and capacity restrictions.

The thrust of the New Industrial Policy has, therefore been to provide free access to capital, technology and market in order to induce greater industrial efficiency and international competitiveness. The policy seeks to free Indian industry from the excessive government regulations and control so as to allow freedom and flexibility in business decisions and for

responding to market forces. The policy initiatives were focused on the basic orientation of industry to benchmark itself against the global standards. Since then, a wide campaign of changes were implemented or suggested in the fields of intellectual property, foreign investment, trade law, disinvestment in the public sector, financial sector reforms, easing of foreign-exchange controls and tax reforms.

The economic reform process started in 1991. It is time to take stock of the major achievements and failures during and after the economic reforms. On the achievements front, higher economic growth, moderate inflation, comfortable levels of stocks of foreign exchange and food grains could be cited as major indicators. On the failures side, one might note the fragile fiscal situation, stagnancy in investment rate and erratic export performance. Above all, there is optimism that the economy could be able to ride on the high roads of growth and meet the challenges of the future. This is reflected very well in the growth target of 9 per cent per annum fixed for

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the Eleventh Five year plan (2007-12)\textsuperscript{4}. In order to achieve the above target, rapid growth is also required in the industrial sector in the Eleventh Five-Year Plan.

**AUTOMOBILE INDUSTRY**

The transport sector is the backbone of a country’s rapid economy growth and industrial development. Transportation has made possible an unprecedented level of mobility across geographical boundaries and has given people many more options than they had years ago. It has broadened the base of business by introducing new markets and increasing the available pool of resources. Thus, the relevance of this sector cannot be undermined. Trade facilitated by transportation has been a growing component of the national income all over the world. Needless to say the transport sector is equally important for both developed and developing economies\textsuperscript{5}.

\textsuperscript{4}GOI (2007): “11\textsuperscript{th} Five Year Plan (Chapter IV: Industry)”, Planning Commission, Government of India, New Delhi.

The transport sector includes water transport, aviation (air) transport and surface (land) transport. Automotive industry, which comprises of the automobile and the auto-component sectors, is one of the oldest and largest industries in India. It has been witnessing an impressive growth since the country’s economic liberalisation in the early 1990s. In contrast to 4,000 vehicles produced in the year 1950, the production of vehicles in the country crossed a historic landmark of 11 million units in the year 2006-07\(^6\). Rising demand owing to the strong growth of Indian economy in the post liberalisation and the changing landscape in the global automotive industry have fuelled such a growth. India is currently the 9\(^{th}\) largest producer of automobiles in the world and also 4\(^{th}\) largest exporter of automobiles in Asia, behind Japan, South Korea and Thailand. India, is also the 2\(^{nd}\) largest producer of 2-wheeler, 4\(^{th}\) largest producer of commercial vehicles (CVs) and 11\(^{th}\) largest producer of passenger car in the world. It is expected that, India would be the 7\(^{th}\) largest car producer and retain 4\(^{th}\) largest position in world truck manufacturing by 2016\(^7\). According to Bric (Brazil, Russia, 


India, China) report, India is expected to be the top in the world in car volumes with approximately 611 million vehicles on the nation’s roads by 2050$^8$.

In the year 2008-09, the gross turnover of the Indian automobile industry was US $ 38,238 million (Figure 1.1)$^9$. Favourable investment conditions and the changing scenario of global competition have attracted world’s major auto manufacturers into India. Be it market-seeking or low-cost sourcing, India has emerged as an attractive automotive location to offer (global) automotive sector firms strategic advantages. Increased competition on the home turf as well as the growing acceptance of their products in the foreign markets have encouraged the Indian auto manufacturers to upgrade their technological capabilities, either through in-house research and development (R&D) efforts or through other means of technology acquisition. The industrious efforts of Indian auto manufacturers are earning acclaim worldwide. For example, the world’s cheapest car recently unveiled by the Indian 4-wheeler manufacturer Tata Motors received attention of auto

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manufacturers around the world\textsuperscript{10}. The Indian automotive industry with its large number of domestic and foreign players is operating in terms of the dynamics of an open market. The growing installed capacity of the industry reached a figure of 3.88 million 4-wheelers and 14.31 million 2-wheelers and 3-wheelers in the year 2009-10\textsuperscript{11}. The competitive conditions within the industry have substantially benefited the Indian consumers, who now have access to a wide variety of vehicles with affordable price tags.


FIGURE 1.1
GROSS TRUNOVER OF THE AUTOMOBILE INDUSTRY IN INDIA
2002-03 TO 2008-09
(US $ Million)

Source: Society of Indian Automobile Manufactures (SIAM, 2010)
SIGNIFICANCE OF THE AUTOMOBILE INDUSTRY

Automobile industry, globally, as well in India, is one of the key sectors of the economy. Automobile has become an important ingredient of nearly every aspect of economic and social life. Its impact on everyday life and human perception is so great that it has become something like a symbol of progress and development. Automobile industry is not only an issue of consumption but also regard as an industry that drives the entire economy\textsuperscript{12}.

Automobile sector’s most obvious benefit is its input into the motor transport industry, viz., in ferrying goods and people from one place to another in a more flexible and very often more efficient manner than by other forms of transport. Road vehicles can penetrate into areas where other forms of transport cannot, thereby contribute towards the integration of backward areas into the national main stream. Due to its deep forward and backward linkages with several key segments of the economy, automobile industry has a strong multiplier effect and is capable of being the driver of economic growth. As a result, the Indian government has paid special

attention to the investment and growth within the industry. It is also important from a strategic viewpoint, as it strengthens national security\textsuperscript{13}.

Today, the Indian automobile industry contributes to roughly five per cent of country’s GDP and accounts for 24 per cent of the industrial output. By 2016, it is expected that the automotive sector would double its contribution to the country’s GDP and also go up to around 35 per cent of the industrial output. More importantly, it provides employment to 200,000 persons in vehicle manufacturing, 250,000 in component companies and 10 million at different levels of the value chain – both through forward and backward linkages. The expected growth in investments and output of India’s automotive sector will create further employment opportunities in the country. Additional 25 million jobs are likely to be created by the way of direct and indirect employment in automotive companies and in other parts of the vehicle value chain such as servicing, repairs, sales and distribution chains\textsuperscript{14}.


\textsuperscript{14} ACMA (2008): “Global competitiveness of Indian auto component industry and its sustainability”, Automotive Component Manufacturers Association of India (ACMA), New Delhi. (http://acmainfo.com/docmgr/Status_of_Auto_Industry/Status_Indian_Auto_Industry.pdf)
CURRENT SCENARIO OF INDIAN AUTOMOBILE INDUSTRY

The automobile industry in India comprises a good balance of domestic as well as foreign players. Appendix A provides a list of domestic and foreign automobile manufacturers currently operating in India. As could be observed in the list, most of the domestic firms were established in the pre-liberalisation period and are currently operational in more than one vehicle segments. In case of foreign firms, the entries into the Indian market were mainly observed after the year 1993. Firms like Suzuki and Yamaha who had established joint ventures with Indian partners in the pre-liberalisation period, acquired majority stake in their ventures subsequently. Among different vehicle segments, the foreign players are predominantly concentrated in the passenger car and CV segments. Thus, a good mix of seasoned domestic players and renowned foreign players has rendered healthy competition in the Indian automobile industry. The automobile models produced by the industry fill up nearly all the price points addressing varied consumer preferences, and thereby further stimulating the industry growth.
**Installed Capacity**

The automobile industry, especially over a period of time, and particularly after liberalization, has installed a robust capacity. It has reached a figure of 3.88 million 4-wheelers and 14.31 million 2-/3-wheelers in the year 2009-10 (Table 1.1).

**TABLE 1.1**

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four Wheelers</td>
<td>3.17</td>
<td>3.88</td>
</tr>
<tr>
<td>Two &amp; Three Wheelers</td>
<td>12.15</td>
<td>14.31</td>
</tr>
<tr>
<td>Engines</td>
<td>0.45</td>
<td>0.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15.77</strong></td>
<td><strong>18.68</strong></td>
</tr>
</tbody>
</table>


**Production**

Production of all categories of vehicles has increased to 14.32 million units in 2009-10 from 5.0 million units in 2000-01. Although the sector was hit by an economic slowdown, the overall production has increased from 11.17 million vehicles in 2007-08 to 11.38 million vehicles in 2008-09. Passenger vehicles have increased marginally from 1.77 million to 1.83
million while 2-wheeler increased from 8.02 million to 8.41 million units\textsuperscript{15}. The volume of production has increased at a compound annual growth rate (CAGR) of over 12 per cent during the period 2000-01 to 2009-10.

\textit{Domestic sales}

Indian consumers have at their disposal a broad array of automobile models to choose from. The well-developed Indian automobile industry produces nearly all kinds of vehicles, which are broadly categorised as shown in Table 1.2 given below. Detailed classification of automotive vehicles in India is given in Appendix B.

TABLE 1.2

CLASSIFICATION OF AUTOMOBILE VEHICLES IN INDIA

<table>
<thead>
<tr>
<th>Vehicle Types</th>
<th>Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 &amp; 6 wheelers</td>
<td>Passenger Vehicles</td>
</tr>
<tr>
<td></td>
<td>Passenger Cars</td>
</tr>
<tr>
<td></td>
<td>Utility Vehicles (UVs)</td>
</tr>
<tr>
<td>Commercial</td>
<td>Light Commercial Vehicles LCVs</td>
</tr>
<tr>
<td>Vehicles</td>
<td>Medium Commercial Vehicles MCVs</td>
</tr>
<tr>
<td></td>
<td>Heavy Commercial Vehicles HCVs</td>
</tr>
<tr>
<td>3-wheelers</td>
<td>Passenger Carriers</td>
</tr>
<tr>
<td></td>
<td>Goods Carriers</td>
</tr>
<tr>
<td>2-wheelers</td>
<td>Scooters</td>
</tr>
<tr>
<td></td>
<td>Motorcycles</td>
</tr>
<tr>
<td></td>
<td>Mopeds</td>
</tr>
<tr>
<td></td>
<td>Electric 2-wheelers</td>
</tr>
</tbody>
</table>

Source: Self-construction based on SIAM

The Indian automobile market provides a strong demand base for the growth of the automotive industry. Among various categories of automobile vehicles, the sales of 2-wheelers dominate the Indian automobile market\textsuperscript{16}.

\textsuperscript{16}SIAM (2010): "Domestic Sales Trend", Society of Indian Automobile Manufacturers (SIAM), New Delhi.
This could be attributed to the country’s poor mass transport system and the need for cheaper and efficient means of individual mobility. Another striking characteristic of the market was the rapidly growing demand for passenger vehicles and commercial vehicles. In the 2-wheelers category, the sales of motorcycles currently exceed that of any other sub-segment. Similarly, in the passenger vehicles category, the sales of small cars (mini and compact) dominate other sub-segments. Such a nature of demand specific to the Indian consumers was explained by the country’s demographic (example, highest number of people below the age of 35 years) and socio-economic (example, rising middle class) factors.

Further, the Indian automobile market has been registering a positive growth annually. The average annual growth rate of the market calculated for the years 2000-01 to 2009-10 has been 11 per cent. A low ownership of 8 vehicles per 1000 persons\(^{17}\) and the presence of strong demand drivers have identified India as an attractive automobile market. The commonly cited

\(^{17}\) ACMA (2008): “Global competitiveness of Indian auto component industry and its sustainability”, Automotive Component Manufacturers Association of India (ACMA), New Delhi. (http://acmainfo.com/docmgr/Status_of_Auto_Industry/Status_Indian_Auto_Industry.pdf)
growth drivers of the market and their direct influence on different vehicle segments were summarised in Table 1.3 given below.

The import of automobiles in completely-built unit (CBU) form generally attracts high custom duties in India. Even though the import duties have been progressively reduced, they are still high enough to discourage a significant market for imported CBUs. For example, the total value of imported CBUs in the year 2005-06 was mere US$130 million when compared to the US$28 billion of production within the country\(^\text{18}\). Thus, several foreign automobile manufacturers attracted by the growth prospects of the Indian market have resorted to setting up production facilities in the country. The resulting increase in industry competition and the availability of world-class technology products have further stimulated the domestic demand.

\(^{18}\text{Import value obtained from the Export Import Data Bank (Tariff item no.: 8703 and 8711) of the Directorate General of Foreign Trade (DGFT), Government of India. (www.dgft.delhi.nic.in)}\)
## TABLE 1.3

**GROWTH DRIVERS OF THE INDIAN AUTOMOBILE MARKET**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Growth Drivers</th>
<th>Passenger Vehicles</th>
<th>Commercial Vehicles</th>
<th>3-wheelers</th>
<th>2-wheelers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rising industrial and agricultural output</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Growth in road infrastructure</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Rising per capita income</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>4.</td>
<td>Favourable demographic distribution with rising working population and middle class</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>5.</td>
<td>Urbanisation</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>6.</td>
<td>Increasing disposable income in rural agri-sector</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>7.</td>
<td>Availability of variety of vehicles models meeting diverse needs and preferences</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>8.</td>
<td>Greater affordability of vehicles</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>9.</td>
<td>Easier finance schemes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10.</td>
<td>Favourable government policies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>


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Exports

Indian automobile industry has been registering a healthy growth in terms of its exports as well. India exports both automobiles as well as auto-components to markets around the world. The key destinations include South Asian neighbours' European Union (Germany, UK, Belgium, The Netherlands and Italy), Middle East and North America\textsuperscript{22}. Increasing pressure in the global competition to source from low-cost countries combined with the skills and quality advantages of India was the commonly cited explanation for the growth in India’s automotive exports\textsuperscript{23}. Additionally, supporting policy measures of the Indian government such as export-linked fiscal incentives, establishment of export-processing zones, bilateral or multilateral trade agreements with other countries, etc. have furthered this growth. On the other hand, several foreign manufacturers have made India the manufacturing base for some of their products meant for


regional or global exports\textsuperscript{24}. All this testifies to the fact that the ‘Made in India’ brand was gaining increasing acceptance in the global export markets.

\textit{Investment Policy}

With the idea of establishing a globally competitive automotive industry and to double its contribution to the economy by 2010, the government of India in the year 2002 announced its \textbf{Auto policy and Vision 2010}. The Auto Policy allows automatic approval for foreign equity investment upto 100 per cent in the automotive sector and does not lay down any minimum investment criteria, removing all the quantitative restrictions that were in place till 2001\textsuperscript{25}. The rising trend of foreign direct investment (FDI) in India’s automotive industry depicted in Figure 1.2 below testifies for this fact\textsuperscript{26}.

\footnotesize
\textsuperscript{24}IBEF (2005): “Automotive Industry on Fast Track”, India Brand Equity Foundation, New Delhi.


\textsuperscript{26}Foreign investment in a country can take place in the form of either portfolio or direct investment. India adopts the ‘10% rule’ to classify foreign investment into portfolio or direct, wherein ownership of 10% or more of the ordinary shares (or equivalent for the unincorporated enterprises) by a foreign investor is recognised as FDI (OECD 1996 and RBI 2002).
FIGURE 1.2

FDI TREND IN INDIAN AUTOMOTIVE INDUSTRY

Source: Ministry of Commerce and Industry, Government of India, New Delhi. (www.dipp.nic.in/fdi_statistics/india_fdi_index.htm)

In February 2007, Indian government announced the Automotive Mission Plan (AMP) for transforming the country into a global destination for design and manufacture of auto components. The plan envisions the sector’s turnover to swell to US $ 145 billion by 2019 from the current US $ 9.8 billion, thereby contributing 10 per cent to the GDP against five per cent
now. The proposals include a tax holiday for investments over Rs 5 billion. Also proposed are 100 per cent tax deduction on export profits and 50 per cent deduction on foreign exchange earnings\textsuperscript{27}.

Earlier, the Finance Bill 2006 has given a further boost to the automotive industry by reduction of the excise duty on the small motor vehicles, the reduction in the duty for raw material which is now between 5 to 7.5 per cent as compared to the previous level of 10 per cent, and the thrust on infrastructure development.

As a result of constant persuasion by the Department of Heavy Industry, some of the objectives like imposition of excise duty on body building activity of CVs, lower excise duty on the small cars, extension of 150 per cent weighted deduction on R&D expenditure to the automotive sector, increased budgetary allocation for R&D activities in the sector and moving towards a lower duty regime have been achieved and steps are being taken to further strengthen the capability of the sector.

NATIONAL AUTOMOTIVE TESTING AND RESEARCH AND DEVELOPMENT INFRASTRUCTURE PROJECT (NATRIP)

The most critical intervention of the Government thus far in the automotive sector has come in the form of an ambitious project on setting up world-class automotive testing and R&D infrastructure in the country to deepen manufacturing, encourage localized R&D, boost exports, converge India’s unparalleled strengths in IT and electronics with automotive engineering sectors to firmly place India in US $ 6 trillion global automotive business. NATRIP aims at facilitating introduction of world-class automotive safety, emission and performance standards in India and also to ensure seamless integration of Indian automotive industry with the global industry. The project aims at addressing one of the most critical handicaps in the overall growth of automotive industry today, that was, major shortfall of testing and pre-competitive common R&D infrastructure\(^\text{28}\).

\(^{28}\) Ibid.,
AUTO POLICY 2002

Auto Policy 2002 aims to promote integrated, phased, enduring and self-sustained growth of the Indian automotive industry. The main objectives are:

- Exalt the sector as a lever of industrial growth and employment and to achieve a high degree of value addition in the country.
- Promote a globally competitive automotive industry and emerge as a global source for auto components.
- Establish an international hub for manufacturing small, affordable passenger cars and a key center for manufacturing tractors and 2-wheelers in the world.
- Ensure a balanced transition to open trade at a minimal risk to the Indian economy and local industry.
- Conduce incessant modernization of the industry and facilitate indigenous design, research and development.
- Steer India’s software industry into automotive technology.

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• Assist development of vehicles propelled by alternate energy sources.

• Development of domestic safety and environmental standards at par with international standards.

The Auto Policy has spelt out the direction of growth for the auto sector in India and addresses most concerns of the automobile sector, including:-

• Promotion of R&D in the automotive sector to ensure continuous technology upgradation, building better designing capacities to remain competitive.

• Impetus to Alternative Fuel Vehicles through appropriate long term fiscal structure to facilitate their acceptance.

• Emphasis on low emission fuel auto technologies and availability of appropriate auto fuels and encouragement to construction of safer bus/truck bodies – subjecting unorganized sector also to 16 per cent excise duty on body building activity as in case of Original Equipment Manufacturers (OEMs).
The policy has rightly recognised the need for modernising the parc profile of vehicles to arrest degradation of air quality. The terminal life policy for commercial vehicles and move toward international taxing policies linked to age of vehicles, are steps in the right direction. The Auto policy also allows automatic approval for foreign equity investment upto 100 per cent in the automotive sector and does not lay down any minimum investment criteria.

GLOBAL SCENARIO OF AUTOMOBILE INDUSTRY

In the initial years, most of the manufacturing activities were concentrated in the USA and in some of the European countries. Though, these countries still now account for a significant share in the production, more and more volume of production comes from other parts of the world, like China, Japan and Korea. In 2007, the global motor vehicle production has reached a peak at a total of 73.3 million units. Of these, Japan, USA and China, cumulatively constitute over 40 per cent of global production. However in 2009, the production dropped by 13.5 per cent to 61.71 million units. U.S production was dropped by 34.3 per cent to 5.7 million units and sales dropped by 21.2 per cent to 10.4 million units in 2009. As on
November 2009, China is the world's largest motor vehicles market, both by sales and production. Production in China rose by 48.3 per cent to 13.8 million units and sales rose by 45 per cent to 13.7 million units in 2009\(^{30}\).

The production of automobiles was concentrated in few parts of the world. China, Japan, USA and Germany have been the largest automobile manufacturers in the world, in the year 2009, followed by South Korea, Brazil, India, Spain, France, Mexico and Canada (Figure 1.3). India\(^{31}\) holds a share of 4 per cent in global automobile production (Figure 1.4).

The European Union, as a bloc, is one of the largest automotive producing regions in the world providing direct employment to an estimated 2 million people, while the total employment effect (direct and indirect) was estimated to be about 10 million. According to Organisation International Constructeurs d’ Automobiles (OICA), China is the largest producer of cars in the world followed by Japan, Germany, South Korea, Brazil and USA. India ranks 6th in the production of cars in the world. USA is the largest


\(^{31}\) It may be mentioned that OICA production data does not include two/three wheelers, in which India accounts for significant volume of production.
producer of commercial vehicles. Close competitors are China, Japan, Canada, Thailand and Mexico. India ranked 8\textsuperscript{th} in the production of commercial vehicles and was ahead of countries like Thailand, Canada, Brazil, and Mexico\textsuperscript{32}.

\textbf{FIGURE 1.3}

\textbf{TOP 10 COUNTRIES IN THE GLOBAL: PRODUCTION OF MOTOR VEHICLES IN 2009}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1_3.png}
\caption{TOP 10 COUNTRIES IN THE GLOBAL: PRODUCTION OF MOTOR VEHICLES IN 2009}
\end{figure}

\begin{flushright}
Source: International Organization of Motor Vehicle Manufacturers (OICA, 2009)
\end{flushright}

FIGURE 1.4
COUNTRY-WISE SHARE IN GLOBAL VEHICLE PRODUCTION IN 2009

In terms of two wheelers, China is the leading producer in the world with a production level of over 22 million units in 2009, followed by India (over 8 million units), and Indonesia (around 5 million units). Other major two wheeler producers are Japan, Brazil, Thailand, Vietnam, Italy, Malaysia and Colombia.
SIGNIFICANCE OF THE STUDY

The period of study (1970-1971 to 2009-2010) has been broken up into two sub-periods (that is, 20 years from 1970-71 to 1989-90 before liberalization and another 20 years from 1990-91 to 2009-10 that is, after liberalization) before and after liberalization and compares the growth of automobile industry in the two periods. This study would help to know about the underlying factors responsible for such performance and might permit a broad judgment about the production, domestic sales and exports possibilities in the near feature. More the growth rate of automobile in India could be compared with the other countries to understand the nature of achievements. No doubt knowing trends in the past, a researcher could get an idea about the future of the automobile industry in India.

Production of all categories of vehicles in India has increased to 14.32 million units in 2009-10 from 0.22 million units in 1970-71. For the past ten years of period, the volume of production has increased at a CAGR of over 12 per cent. The volume of domestic sales of vehicles has increased at a CAGR of 11 per cent.
OBJECTIVES OF THE STUDY

The main objective of the present study is to evaluate the automobile industry in India in general; the specific objectives are as follows:

1. To trace the genesis of automobile industry and its evolution in India.

2. To study the growth trend in production and domestic sales of automobiles vehicles of various categories in India during 1971-1972 to 2009-2010.

3. To examine the factors determining the relationship between the demand for and supply of automobile vehicles with special reference to passenger cars in Tamil Nadu during 2009-2010.

4. To give suggestions to enhance the automobile industry based on the findings of the study.
HYPOTHESIS OF THE STUDY

The following hypothesis arises from the above mentioned objectives:

1. Domestic marketed surplus is positively related with export.
2. Getting service of maintenance to car in every six months reflects the level of car maintenance among the people for their safety driving and life.

LIMITATION OF THE STUDY

1. The study on secondary data has been narrowed down to production and domestic sales of automobile vehicles in India and not considered the export of vehicles from India due to non-availability of continuous time-series data. Export of vehicles from India had significant only after liberalization.
2. Also, the study on primary data has been narrowed down to passenger car users and not considered the other categories of automobile vehicles due to time boundary and cost involvement.
ORGANISATION OF THE STUDY

The study spans over seven chapters, including the present one. The Chapter II surveys the earlier research works related to the Indian automobile industry and also the research methodology.

The Chapter III and IV discusses about the genesis of the automobile and the evolution of automobile industry in India in a descriptive way.

The Chapter V deals with the growth trend analysis based on the secondary data.

The Chapter VI deals with the demand for and supply of passenger car analysis based on the primary data.

The Last Chapter presents a summary of the major findings, conclusions and suggestion of the study.