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1.1 INTRODUCTION:

The Indian automotive industry has emerged as a 'sunrise sector' in the Indian economy. India is emerging as one of the world's fastest growing passenger car markets and second largest two wheeler manufacturer. It is also home for the largest motor cycle manufacturer and fifth largest commercial vehicle manufacturer. India is the largest base to export compact cars to Europe. Moreover, hybrid and electronic vehicles are new developments on the automobile canvas and India is one of the key markets for them. Global and Indian manufacturers are focusing their efforts to develop innovative products, technologies and supply chains.

1.2 AUTOMOBILE INDUSTRY:

Automobile industry, the business of producing and selling self-powered vehicles, including passenger cars, trucks, farm equipment, and other commercial vehicles. By allowing consumers to commute long distances for work, shopping, and entertainment, the auto industry has encouraged the development of an extensive road system, made possible the growth of suburbs and shopping centers around major cities, and played a key role in the growth of ancillary industries, such as the oil and travel businesses. The auto industry has become one of the largest purchasers of many key industrial products, such as steel. The large number of people the industry employs has made it a key determinant of economic growth. Automobile is self propelled vehicle which is used for the transportation of passenger and good upon the ground. A vehicle is machine which is used for the transportation of passengers and goods. Car, bus truck, jeep, tractor, scooter, motor cycles are the example of automobiles.
DIFFERENT NAMES OF THE AUTOMOBILE:

1. Auto
2. Auto car
3. Car
4. Motor car
5. Automobile
6. Auto buggy
7. Motor coach
8. Motor vehicle
9. Motor
10. Motor wagon
11. Horseless carriage

TYPES OF AUTOMOBILES:

The automobiles are classified on the following basis:-

1. Purpose :
   (i) Passenger vehicle- car, jeep, bus
   (ii) Good Vehicle- Truck

2. Capacity :
   (I) Light motor vehicle- car, motor cycle, scooter.
   (II) Heavy Motor vehicle- Bus coach, tractor.

3. Fuel used:
   (i) Petrol vehicles – car, jeep, motor cycle, scooter.
   (ii) Diesel Vehicles- Truck, bus, tractor, bulldozer.
   (iii) Electric cab- Battery truck, fork lift, scooter
   (iv) Stream carriage- stream road rollers.

4. No of Wheels :
   (i) Two Wheeler
   (ii) Three Wheeler
   (iii) Four Wheeler
   (iv) Six Wheeler.

5. Drive of the vehicles :
   (i) Singles wheel drive vehicle
   (ii) Two wheel drive vehicle
   (iii) Four wheel drive vehicle
   (iv) Six wheel drive vehicle
1.3 DEVELOPMENT OF AUTOMOBILE INDUSTRY:

CHART NO. – 1.1 DEVELOPMENT OF AUTOMOBILE INDUSTRY

1.3.1 THE WHEEL:

The invention of the wheel paved the way for transportation as we know it today. Historians don’t know exactly who invented the wheel, but the oldest wheel discovered so far is believed to be over 5,500 years old. The development of the wheel began when humans sought easier methods for moving large objects. It was recognized that round objects, such as a log, could be placed under something heavy to push it along with less force. Next humans began using a sledge.

A sledge is essentially what today we would call a sled. A sledge worked well over smooth ground or with logs placed under it as it was pulled along. Eventually the sledge wore grooves in the log rollers. The grooved rollers worked better since there was less friction between the sledge and the rollers, so less energy was needed to drag the sledge.

It wasn’t long before humans cut away the wood between the two inner grooves created by the sledge. The wood left between the grooves became the axle. These were the first carts. Next, axles were designed to fit through holes in the center of each wheel.
Finally, axles were designed not to move themselves, but rather to have the wheel rotate on the axle. The ancient Egyptians, Indians, Greeks and Romans continued to improve the design of the wheel, adding spokes and creating a variety of wheels for different sorts of vehicles including chariots for war, hunting, and racing, two-wheeled farm carts, covered carriages, heavy four-wheeled freight wagons and passenger coaches.

1.3.2 HORSE POWER:

For centuries wheeled vehicles were pulled by oxen, horses or even people. Until the invention of the internal combustion engine, the horse was Europe's most important source of energy. The term 'horsepower' is still used today to measure the power limits of machine engines.

Horses allowed civilizations to extend their power and expand their territories. When paired with wheeled vehicles such as carts, chariots and carriages, this harnessed power allowed people more freedom to travel, explore and settle new land.

However, even horse drawn transportation came with its own source of pollution. Waste from horses was a serious concern in cities and it became more and more difficult to maintain sanitary conditions as the number of people and, therefore, horses grew. Concerns over these conditions led some innovators to look towards alternative forms of transportation.

1.3.3 STEAM POWERED VEHICLES:

In the 17th century, steam-powered vehicles, dubbed “horseless carriages,” came on to the scene. However, it was not until the early 18th century and the invention of the high pressure steam engine that these steam-powered vehicles were considered as potentially practical. Limitations in building technology and the poor condition of road surfaces limited these “steam cars” as personal transportation until the 19th century. At first, their sheer heaviness meant that they needed the support of iron rails to move effectively. This of course led to the use of steam engines in trains, thus powering the railroad industry. By 1902, 485 out of 909 new car registrations were for steamers. In 1906, the land speed record was broken by a Stanley steam car. The car and driver reached 127 miles per hour! The steam engine powered the vehicle by burning wood, coal or oil to heat water in a boiler. The steam that was generated drove pistons up and down within hollow cylinders. The movement of the pistons drove the crankshaft, which
ultimately turned the wheels. In addition to their considerable weight, steam powered vehicles had several other disadvantages. They required long start-up times and required frequent stops to get water.

1.3.4 ELECTRIC VEHICLES:

In the 1830s, inventors also began to use electric motors to power vehicles. Like electric cars today, they ran on energy stored in rechargeable batteries. Unfortunately, the energy storage capacity of the early batteries was very limited, and these vehicles could travel relatively short distances before the batteries needed to be recharged. Although the range of early electric vehicles was limited, they could travel further on a single charge than steam-powered vehicles could go without stopping to renew their water supply.

Initially, the electric car’s limited range was not a liability because the only good roads at the time were in towns. The electric car also had several advantages over other types of vehicles until the early 1900’s. Driving electric cars, like steam-powered vehicles, did not require changing gears, which was a difficult maneuver in driving early gasoline-powered cars. In comparison to cars with gas engines, electric vehicles were also quieter, offered a smoother ride, and were relatively odor-free. They also did not require a long start-up time like the steam car or the considerable manual effort that was required to start a gas-powered car with a hand crank. In 1899 and 1900, the sale of electric cars surpassed those of all other types of vehicles in the U.S. However, the prominence of the electric car was destined to be short-lived as several developments shifted the advantage to gasoline powered vehicles.

1.3.5 INTERNAL COMBUSTION ENGINES:

As more and more good roads were built to connect cities, the electric car’s limited range eventually became a liability, and vehicles with gasoline engines, which had a much longer range, became more popular. Other developments also helped the gas-powered car gain prominence. The price of gasoline became more affordable with the discovery of vast oil reserves in Texas in 1901, and the introduction of the conveyor belt assembly line system by Henry Ford in 1913 reduced production costs of gas-powered vehicles, making them more affordable as well.

However, the development which had the biggest impact was probably the invention of the electric starter in 1911. Before this invention, gasoline-powered internal
combustion engines had to be started by a hand crank. The hand crank was difficult to use and sometimes even quite dangerous. Improper cranking could cause a backfire strong enough to break the arm of the crankier. With the invention of the electric starter, cars with gas engines became safer to start and what had been the electric car’s major advantage was eliminated.

1.3.6 INDUSTRY HISTORY:

Although ancient Chinese writers was described steam-powered vehicles, and both steam- and electric-powered cars competed with gas-powered vehicles in the late 19th century. Frenchman Jean Joseph Etienne developed the first practical internal-combustion engine in 1860, and later in the decade several inventors, most notably Karl Benz and Gottlieb Daimler, produced gas-powered vehicles that ultimately dominated the industry because they were lighter and less expensive to build. French companies set the design of the modern auto by placing the engine over the front axle in the 1890s and U.S. manufacturers made important advances in the mass production of the auto by introducing cars with interchangeable machine-produced parts.

In 1914 Henry Ford began to mass produce cars using assembly lines. In addition, his practice of providing loans to consumers to buy cars in 1915 made the model-T affordable to the middle class. In the 1920s, General Motors further changed the industry by emphasizing car design. The company introduced new models each year, marketed different lines of cars to different income brackets, and created a modern decentralized system of management. U.S. auto sales grew from 4,100 in 1900 to 8,95,900 in 1915, to 3.7 million in 1925. Sales dropped to only 1.1 million in 1932 and during World War II, the auto factories were converted to wartime production.

The automobile industry, now a hundred years old, is often regarded as the main engine of industrial growth of the 20th century. Its effects on urban life and the environment are evident everywhere. The industry is a complex and ever changing system of manufacturing, sub-contractors and alliances; and together, both suppliers and assemblers are a principal source of wealth and employment in the industrialized economies. Its production techniques, and in particular the assembly line, have had a profound influence on the organization and technology of other industries and services. The transformation, at the beginning of this century, from craft production to mass
production, heralded an explosion of manufacturing capacity which has had a pervasive effect on all aspects of human activity.

The industry's requirement for materials and components spread far and wide throughout the mining, petro-chemical, and engineering and electronics sectors.

Today's automobile, contains over 12,000 separate parts sourced from a highly competitive and diverse range of suppliers. The automobile industry remains an important and dynamic sector, even though it has now been displaced by the electronics industry as the largest and fastest growing major industrial sector.

1.3.7 THE MODERN INDUSTRY:

After 1945, sales once again took off, reaching 6.7 million in 1950 and 9.3 million in 1965. The U.S. auto industry dominated the global market with 83% of all sales, but as Europe and Japan rebuilt their economies, their auto industries grew and the U.S. share dropped to about 25%. Following the OPEC oil embargo in 1973, smaller, fuel-efficient imports increased their share of the U.S. market to 26% by 1980. In the early 1980s, U.S. auto makers cut costs with massive layoffs. Throughout the 1990s, imports particularly from Japan took an increasing share of the U.S. market.

In the early 1980, Japanese and, later, German companies set up factories in the United States; by 1999, these were capable of producing about 3 million vehicles per year. As a result, the three big U.S. auto makers now produce less than two thirds of the cars sold in America. In the early 1990, over $140 billion worth of motor vehicles and parts were produced in the United States by companies employing more than 210,000 workers. Complaints about auto pollution, traffic congestion, and auto safety led to the passage of government regulations beginning in the 1970s, forcing auto manufacturers to improve fuel efficiency and safety. Auto companies are now experimenting with cars powered by such alternative energy sources as natural gas, electricity, and solar power.

1.4 HISTORY OF AUTOMOBILE INDUSTRY IN WORLD:

This chapter highlights history of Automobile Industry of the world and in India. The present position of this Industry in the world and India is studied. The scope of Automobile Industry in the near future is also explained. Finally all players in Automobile Industry of India are enumerated in this chapter.
The automobile as we know, it was not invented in a single day by a single inventor. The history of the automobile reflects an evolution that took place worldwide. It is estimated that over 100,000 patents created the modern automobile. However, we can point to the many firsts that occurred along the way. Several Italians recorded designs for wind driven vehicles.

The first was Guido da Vigevano in 1335. Vaturio designed a similar vehicle, which was also never built. Later Leonardo da Vinci designed clockwork driven tricycle with tiller steering and a differential mechanism between the rear wheels.

A Catholic priest named Father Ferdinand Verbiest has been said to have built a steam powered vehicle for the Chinese Emperor Chien Lung in about 1678. Since James Watt didn't invent the steam engine until 1705 it is guessed that this was possibly a model vehicle powered by a mechanism like Hero's steam engine, a spinning wheel with jets on the periphery.

The first vehicle to move under its own power for which there is a record was designed by Nicholas Joseph Cugnot and constructed by M. Brezin in 1769. A second unit was built in 1770, which weighed 8000 pounds and had a top speed on 2 miles per hour 68 and on the Cobble Stone Streets of Paris this was probably as fast as anyone wanted to go it.

The early steam powered vehicles were so heavy that they were only practical on a perfectly flat surface as strong as iron. A road thus made out of iron rails became the norm for the next hundred and twenty-five years. The vehicles got bigger and heavier and more powerful and as such they were eventually capable of pulling a train of many cars filled with freight and passengers.

Many attempts were being made in England by the 1830's to develop a practical vehicle that didn't need rails. A series of accidents and propaganda from the established railroads caused a flurry of restrictive legislation to be passed and the development of the automobile by passed England. Several commercial vehicles were built but they were more like trains without tracks.

The development of the internal combustion engine had to wait until a fuel was available to combust internally. Gunpowder was tried but didn't work out. Gunpowder
carburetors are still hard to find. The first gas really did use gas. They used coal gas generated by heating coal in a pressure vessel or boiler.

A Frenchman named Etienne Lenoir patented the first practical gas engine in Paris in 1860 and drove a car based on the design from Paris to Joinville in 1862. His one-half horsepower engine had a bore of 5 inches and a 24-inch stroke. It was big and heavy and turned 100 rpm. Lenoir had a separate mechanism to compress the gas before combustion. In 1862, Alphonse Bear de Rochas figured out how to compress the gas in the same cylinder in which it was to burn, which is the way we still do it. This process of bringing the gas into the cylinder, compressing it, combusting the compressed mixture, then exhausting it is known as the Otto cycle, or four-cycle engine. Lenoir claimed to have run the car on benzine and his drawings show an electric spark ignition. If so, then his vehicle was the first to run on petroleum based fuel, or petrol, or what we call gas, short for gasoline.

Siegfried Marcus, of Mecklenburg, built a car in 1868 and showed one at the Vienna Exhibition of 1873. His later car was called the Strassenwagen had about ¾ horsepower at 500 rpm. It ran on crude wooden wheels with iron rims and stopped by pressing wooden blocks against the iron rims, but it had a clutch, a differential and a magneto ignition. One of the four cars, which Marcus built, is in the Vienna Technical Museum and can still be driven under its own power.

In 1876, Nokolaus Otto patented the Otto cycle engine, de Rochas had neglected to do so, and this later became the basis for Daimler and Benz breaking the Otto patent by claiming prior art from de Rochas.

In 1885, Gottlieb Daimler's in Bad Cannstatt built the wooden motorcycle. Daimler's son Paul rode this motorcycle from Cannstatt to Unterturkheim and back on November 10, 1885. Daimler used a hot tube ignition system to get his engine speed up to 1000 rpm. On 29th January 1886, Karl Benz was granted a patent on it and on 3rd July 1886, he introduced the first automobile in the world to an astonished public.

Also in August 1888, William Steinway, owner of Steinway & Sons piano factory, talked to Daimler about US manufacturing right and by September had a deal. By 1891 the Daimler Motor Company, owned by Steinway, was producing petrol engines for tramway cars, carriages, quadric cycles, fire engines and boats in a plant in Hartford, CT.
Steam cars had been built in America since before the Civil War but the early one was like miniature locomotives.

In 1871, Dr. J. W. Carhart, professor of physics at Wisconsin State University, and the J. I. Case Company built a working steam car. By 1890 Ransom E. Olds had built his second steam-powered car.

One was sold to a buyer in India, but the ship it was on was lost at sea. Running by February, 1893 and ready for road trials by September, 1893 the car built by Charles and Frank Duryea, brothers, was the first gasoline powered car in America. The first run on public roads was made on September 21, 1893 in Springfield, MA. Henry Ford had an engine running by 1893 but it was 1896 before he built his first car. By the end of the year Ford had sold his first car, which he called a Quadra cycle, for $200 and used the money to build another one. With the financial backing of the Mayor of Detroit, William C. Maybury and other wealthy Detroiter, Ford formed the Detroit Automobile Company in 1899.

A few prototype were built but no production cars were ever made by this company. It was dissolved in January 1901. Ford would not offer a car for sale until 1903. Eli Olds built first petrol-powered car. This car was running by 1896 but production of the Olds Motor Vehicle Company of Detroit did not begin until 1899. After an early failure with luxury vehicles they established the first really successful production with the classic Curved Dash Oldsmobile. It sold for $650. In 1901 600 were sold and the next years were 1902 - 2,500, 1903 - 4,000, and 1904 - 5,000.

In August 1904 Ransom Olds left the company to form Reo for Ransom Eli Olds. E. Olds was the first mass producer of gasoline-powered automobiles in the United States, even though Duryea was the first auto manufacturer with their 13 cars. The Rolls Royce Silver Ghost of 1906 was a six cylinder car that stayed in production until 1925. It represented the best engineering and technology available at the time and these cars still run smoothly and silently today. This period marked the end of the beginning of the automobile.

1.4.1 HISTORY OF THE JAPANESE AUTOMOBILE INDUSTRY:

The first Japanese car manufacturing companies at a full scale was established by Nissan Automobile in 1933 and by Toyota Automobile in 1937. In the fifties and more
years since the Japanese began producing cars domestically, Japanese automotive technology has made remarkable progress and come to be one of the international leaders. In 1980, Japan became the top automobile-producing country in the world. The domestic auto industry has grown to the point where it is today one of the key industries supporting the Japanese economy. Today, looking further toward the twenty-first century, utilizing new materials, high-tech electronics, new power sources, and artificial intelligence, the type of car which automakers are capable of producing cannot even be imagined.

1.4.2 HISTORY OF THE AMERICAN AUTOMOBILE INDUSTRY:

Charles E. and J. Frank Duryea, two brothers from rural Illinois, were the founders of the American automobile industry. The Duryea Motor Wagon Company was the first company organized in the United States for the manufacture of automobiles. The automobile has changed the way people live and work all over the world. In America, very few people had cars prior to Henry Ford’s assembly line.

This one industrial marvel was instrumental in changing America from a rural, agricultural way of life to an urban, more industrial way of life. The society changed to a more mobile way of life, where the common man no longer needed to live in the same town where he worked. Also, it brought leisure activities closer to home, because travel was easier.

Today, just about anyone who wants a car can have a car and, for the most part, they are essential to man way of life. Supporting industries flourished at the onset of the automobile and still flourish today. Businesses that produce rubber, steel, glass, petroleum, and many automotive parts and supplies employ many people in support of the automobile.

1.4.3 THE AUTOMOBILE INDUSTRY AT PRESENT:

For most of the history of automobiles, a car was expected to do little more than travel from place to place with some degree of reliability and economy. As roads and technology improved and more people began to use them, cars were expected to go a little faster, ride more comfortably and last long enough to make the investment worthwhile.
Almost any new car could do these things well by the early 1930s, and even as technology advanced over the next 40 years, what the world expected of a car remained basically the same. Speed, convenience and reliability improved steadily, but for more than 70 years, a car was expected to do nothing more than move people and their stuff with a degree of comfort and style commensurate with the sale price.

Then the governments got involved in automobile design. Actually, various state governments started requiring certain safety items as the technology became practical, such as electric lights, safety glass and redundant throttle return springs. But beginning with the creation of the Federal Motor Vehicle Safety Standards in 1966 and the U.S. Environmental Protection Agency in 1973, the very mission of the automobile began changing. Instead of just carrying people and their stuff quickly, comfortably and reliably, cars were eventually required to protect their occupants in a crash, retain all unburned fuel vapors, convert the byproducts of combustion into less harmful gases and report their own malfunctions.

Today they must meet these and many other safety and performance requirements set by the Society of Automotive Engineers, the repair industry and several governments, especially if the car is built for export.

As if new technical design standards weren't enough, the buying public's idea of an automobile has also gone light-years beyond reliable, economical transportation. The concept of 'automotive style, which once referred to a range with economy cars at one end of the spectrum and luxury models at the other, has now expanded to include maybe a dozen different types of automobiles. Compared with earlier designers was including those resurrected from the dead to make television commercials, today's automotive designers and engineers are nothing less than heroes.

They must create a car that meets volumes of safety and emissions regulations and wildly imaginative market demands, all of which were undreamed of only a generation ago. And as always, they have to figure out how to mass-produce these machines at a specific cost; because the sale price is pretty much set before the design work is even begun. To be sure, they have a lot of advanced tools at their disposal.

For decades, designers and engineers only needed to create a mechanical device that could carry us wherever there were roads. Now they are engaged in creating
machines more advanced and complex than those that took us to the moon, and sometimes we drive those machines where there are no roads. And as it was in Henry Ford's day, the mid-market price of these marvels of modern technology is still within reach of the people who build them.

However automobile companies now a days have most portions in market. In 1999 Ford sold more than 7.2 million vehicles worldwide, a company record. Ford also set company records for net income in $7.2 billion and earnings per share $5.86, while reducing total costs by $1 billion. General Motors posted record earnings in 1999 of $8.53 per share, which nearly doubled the $4.32 per share earned in 1998. GM's revenues also jumped 14%, operating costs were reduced by $3.7 billion and its automotive profit margin doubled to 3.2%. Daimler Chrysler reported a net income of $5.8 billion in 1998, a 19% gain over 1998. Worldwide sales were up, and operating profit of $11.1 billion was a 28% improvement.

Japan has 11 companies producing finished motor vehicles, including two that make only trucks, but they are merely the tip of an industrial pyramid composed of thousands of companies that supply parts and perform subcontracted work.

In 1993 total automobile industry production reached 42 trillion yen, 13.4% of the total for all manufacturers. The total number of persons employed directly and indirectly by the industry—from manufacturing to sales is 7.2 million, or 11% of Japan's working population.

Nissan Motor Co. Ltd. is building a $930 million vehicle manufacturing plant in Canton that will encompass 2.6 million square feet and produce about 250,000 units annually. Three vehicles will be produced at this facility, a full-size pickup truck, a full-size sport-utility vehicle and a newly designed minivan. Production has slated to begin in mid-2003. The plant initially will employ 3,300 workers. Nissan's production strategy includes having suppliers build modules and components in the same sequence as the vehicles are produced on the production line. In increasing numbers, suppliers and support services also are locating plants adjacent to, or near, the new Nissan plant.

1.4.4 SCOPE OF AUTOMOBILE INDUSTRY IN THE NEAR FUTURE:

According to a survey of ASME International (American Society of Mechanical Engineers), the automobile is the greatest mechanical engineering achievement of the
20th century. The automobile, airplane, Apollo, air conditioning and other technologies made major contributions to engineering progress and economic and social development in the last 100 years. The automobile also spurred transportation in the United States and provided a means of efficient and enjoyable travel for the nation's middle class.

Most automobile engine manufacturers, like Ford, want to be able to react to new market requirements in a quick, flexible, and cost-saving manner, Ford intends to automate the production of engines with open and manufacturer-independent control systems, and has decided in favor of the industrial personal computer because of its substantial cost advantages compared to conventional PLCs. The automobile brought about many safety and health concerns. Agencies have been developed on the federal and state levels to address environmental problems and automobile safety designs. Safety in factories had to be addressed as well, to help protect the factory workers from hazards.

There is much concern today about the pollutants that cars put into our atmosphere from the greenhouse effects on our planet to the very air we breathe. We take the automobile for granted today, just another tool in our every day lives.

Automobile differentiation in the marketplace is dependent on more electronic features. To remain competitive, automakers must offer better features such as multiple air bags, driver information systems, comfort controls and so on. The gradual introduction of advanced features in lower-price automobiles is increasing the market size, which directly translates into a demand for Electronic Control Unit (ECUs). A highly competitive automobile market, with strong performances by manufacturers, large multinational companies, and ongoing technological innovations, is rapidly driving the demand for electronic control unit testers.

World Automotive Test Equipment Markets reveals that this industry generated revenues totaling $173.8 million in 2001. Total market revenues are likely to reach $233.2 million by 2007. Car production will grow from 1998 to 2005 in every region of the world, except Japan, according to an internal Bosch study. The report predicts annual output on average will increase 5.2% in emerging markets, 1.5% in Western Europe and 0.2% in North America--but fall 1.0% in Japan over the next eight years, according to the report. The study forecasts annual increases will average 11.6% in India, 7.6% in China, 6.1% in Central-Eastern Europe and the former Soviet Union, 3.2% in Southeast Asia,
2.9% in South America, and 2.4% in Africa, Central America and the Middle East. Consolidation of the global automobile industry is moving forward at a breathtaking pace. In 2001, the six leading groups General Motors for Isuzu, Ford for Mazda, Toyota, DaimlerChrysler for Mitsubishi, Volkswagen, and Renault for Nissan accounted for almost 70% of the worldwide production of 56.3 mio vehicles.

1.5 **HISTORY OF THE INDIAN AUTOMOBILE INDUSTRY:**

From the policy standpoint, the Indian automobile industry can be viewed in terms of the pre-1991 for before liberalization and post-1991 for after liberalization phase.

1.5.1 **PRE-1991, BEFORE LIBERALIZATION:**

1880’s & early 1900’s about hundred years ago the first motorcar was imported and Import duty on vehicles was introduced. Indian Great Royal Road or Predecessor of the Grand Trunk Road was conceived. First car brought in India by a princely ruler in 1898. Simpson & Co established in 1840. They were the first to build a steam car and a steam bus, to attempt motorcar manufacture, to build and operate petrol driven passenger service and to import American Chassis in India. Railways first came to India in 1850's. In 1865 Col. Rookes Crompton introduced public transport wagons strapped to and pulled by imported steam road rollers called streamers. The maximum speed of these buses was 33 kms/hr. From 1888 Motors Spirit attracted a substantial import duty.

In 1919 at the end of the war, a large number of military vehicles came on the roads. In 1928 assembly of CKD Trucks and Cars was started by the wholly owned Indian subsidiary of American General Motors in Bombay and in 1930-31 by Canadian Ford Motors in Madras, Bombay and Calcutta.

In 1935 the proposals of Sir M Visvesvaraya to set up an Automobile Industry were disallowed. 1942 Hindustan Motors Ltd incorporated and their first vehicle was made in 1950. In 1944 Premier Automobiles Ltd incorporated and in 1947 their first vehicle was produced.

In 1947 the Government of Bombay accepted a scheme of Bajaj Auto to replace the cycle rickshaw by the auto and assembly started in a couple of years under a license from Piaggio. Manufacturing Program for the auto and scooter was submitted in 1953 to the Tariff Commission and approved by the Government in 1959.
In 1953 the Government decreed that only firms having a manufacturing program should be allowed to operate and mere assemblers of imported CKD units be asked to terminate operations in three years. Only seven firms namely Hindustan Motors Limited, Automobile Products of India Limited, Ashok Leyland Limited, Standard Motors Products of India Limited, Premier Automobiles, Mahindra & Mahindra and TELCO received approval. M&M was manufacturing jeeps. Few more companies came up later. Government continued with its protectionism policies towards the industry. Automobile Products of India (API) and Enfield India had already commenced the manufacture of scooters, motorcycles, mopeds and autos from 1955.

In 1956, Bajaj Tempo Ltd entered the Indian market with a program of manufacturing Commercial Vehicles, and Simpson for making engines. Association of India Automobile (AIA) came into being in 1959 and Government approved Bajaj Auto Ltd's plans for domestic manufacture of Vespa scooters and granted permission to produce 6000 units annually. 1960’s: In sixties 2 and 3 Wheeler segment established a foothold in the industry. Escorts and Ideal Jaws entered the field in the beginning of sixties. Association of Indian Automobile Manufacturers formally established in 1960. Between 1955 and 1960 only API was producing Mopeds. During the first half of the sixties three companies namely Mopeds India Ltd in 1965, SZUL Gwalior in 1964 and Pearl Scooters Ltd in 1962 entered the arena. Standard Motors Products of India Ltd. moved over to the manufacture of Light Commercial Vehicles in 1965.

Escorts and Enfield closed their scooter division and continued only with Motorcycle manufacturing. Entire scooter market was occupied by Bajaj Auto Ltd. and API in the sixties in the year 1970. Major factors affecting the industry's structure were the implementation of MRTP Act, FERA and Oil Shocks of 1973 and 1979.

During this decade there was not much change in the four-wheeler industry except the entry of Sipani Automobiles in the small car market. Girnar Scooters Ltd entered into the market in 1971 and its output was less than 5000 units until 1980. In the Two Wheeler Industry there were many entries during this decade. Scooter India established in 1972. In 1972 Kinetic Engineering entered the Industry with a licensed capacity of 100,000 units per annum. Oil Shock of 1973 quickened the process of dieselization of the Commercial Vehicle segment. Three other companies, namely, Kirloskar Ghatge Patil
Auto Ltd, Indian Automotive Ltd and Sen & Pandit Engg products Ltd entered the market during 1971-75. They ultimately withdrew in early eighties. Unlike Motorcycle and Scooter segments the Mopeds segment grew rapidly. In the late seventies there were many entries in the Moped Industry.

Only two firms namely, Majestic Auto Ltd and Sundaram Clayton managed to survive after 1980. During the seventies the economy was in bad shape. This and many specific problems affected the Automobile Industry adversely. 1980's. The period of liberalized policy and intense competition.

Since the 1980’s, the Indian car Industry has seen a major resurgence with the opening up of Indian shores to foreign manufacturers and collaborators.

First phase of liberalization announced and unfair practices of monopoly, oligopoly, etc slowly disappeared. It was beginning of Liberalization of the protectionism policies of the Government. Lots of new Foreign Collaborations came up in the eighties. Many companies went in for Japanese collaborations. Andhra Pradesh Scooters entered into collaboration with Piaggio for manufacture of Vespa model. Hindustan Motors Ltd. in collaboration with Isuzu of Japan introduced the Isuzu truck in early eighties.

All entered into collaboration with Leyland Vehicles Ltd. for development of primary buses and with Hino Motors of Japan for the manufacture of W Series of Engines. Telco after the expiry of its contract with Daimler Benz indigenously improved the same Benz model and introduced it in the market. Government approved four new firms in the LCV market, namely, DCM, Eicher, Swaraj and Allwyn. They had collaborations with Japanese companies namely, Toyota, Mitsubishi, Mazda and Nissan respectively. The Two Wheeler market increased.

Since 1982 the Government had permitted foreign collaborations for the manufacturing of Two Wheelers up to 100 CC engine capacity. Foreign Equity up to 40% was also allowed. In 1983 Maruti Udyog Ltd was started in collaboration with Suzuki, a Japanese firm. Other three Car manufacturers namely, Hindustan Motors Ltd., Premier Automobiles Ltd., Standard Motor Production of India Ltd. also introduced new models in the market.

At the time there were five Passenger Car manufacturers in India: Maruti Udyog Ltd., Hindustan Motors Ltd., Premier Automobiles Ltd., Standard Motor Production of
India Ltd., Sipani Automobiles. Ashok Leyland Ltd. and Telco were strong players in the Commercial Vehicles sector. In 1983-84 Bajaj Tempo Ltd. entered into collaboration with Daimler-Benz of Germany for manufacture of LCVs.

Important policy changes like relaxation in MRTP and FERA, delicensing of some ancillary products, broad banding of the products, modifications in licensing policy, concessions to private sector both Indian and Foreign and also foreign collaboration policy etc. resulted in higher growth or better performance of the industry than in the earlier decades. Lohia Machines Ltd entered in collaboration with Piaggio of Italy. Kinetic Engineering Ltd. entered into Financial & Technical collaboration with Honda Motor Co. of Japan for 100 CC scooters. In the Motorcycle segment firms had shifted their emphasis from heavier models to lighter and fuel-efficient models.

Indian market was flooded with new 100 CC models manufactured by different firms with Japanese Technology. In Moped segment there were 23 firms engaged in their production but the virtual oligopoly of Kinetic Engineering Ltd., SCL and Majestic Auto remained intact. This segment had less collaboration.

1.5.2 POST-1991, AFTER LIBERALIZATION, THE FREEDOM TO GROW:

Beginning with mid-1991 the government of India has made some radical changes in its polices bearing on trade, foreign investment, exchange rate, industry, fiscal affairs and so on. Mass Emission Norms were introduced for in 1991 for Petrol Vehicles and in 1992 for Diesel Vehicles. In 1991 new Industrial Policy was announced. It was the death of the License Raj and the Automobile Industry was allowed to expand. Further tightening of Emission norms was done in 1996. In 1997 National Highway Policy has been announced which will have a positive impact on the Automobile Industry.

The Indian Automobile market in general and Passenger Cars in particular have witnessed liberalization. Many multinationals like Daewoo, Peugeot, General Motors, Mercedes-Benz, Honda, Hyundai, Toyota, Mitsubishi, Suzuki, Volvo, Ford and Fiat entered the market. Various companies are coming up with state-of-art models of vehicles. TELCO has diversified in Passenger Car segment with Indica. Despite the adverse trend in the growth of the industry, it is resolutely trying to meet the challenges. Various issues of critical importance to the industry are being dealt with forcefully.
In 1999 The Supreme Court passed an order directing all car manufacturers to comply with Euro I emission norms and India 2000 norms by the 1st of May 1999 in National Capital Region (NCR) of Delhi. The deadline was later extended to 1st June 1999. The 90s have become the melting point for the car industry in India. The consumer is king. He is being constantly wooed by both the Indian and foreign manufacturers. Though sales had taken a dip in the first few months of 1999, it is back to boom time. New models like Maruti’s Classic, Alto, Station Wagon, Ford’s Ikon and the new look Mitsubishi Lancer have all been launched with an eye on the emerging market.

1.5.3 THE INDIAN AUTOMOBILE INDUSTRY AT PRESENT:

The Indian automobile industry has come a long way since the first car ran on the streets of Mumbai in 1898. The initial years of the industry were characterized by unfavorable government policies. The real big change in the industry, as we see it today, started to take place with the liberalization policies that the government initiated in the 1991. The liberalization policies had a salutary impact on the Indian economy and the automobile industry in particular.

The automobile industry in the country is one of the key sectors of the economy in terms of the employment opportunities that it offers. The industry directly employs close to around 0.2 million people and indirectly employs around 10 million people. The prospects of the industry also has a bearing on the auto-component industry which is also a major sector in the Indian economy directly employing 0.25 million people.

The automobile industry in India is gradually evolving to replicate those of developed countries. The trends are emerging in the industry across segments, namely, passenger cars, multi-utility vehicles, commercial vehicles, two-wheelers and tractors. The qualitative analysis of the various trends reveals that the industry offers immense scope even for allied industries and those looking at investing in the auto industry.

The Indian automobile industry is undergoing a revolution of sorts. The vehicle war is on and it's a fight to the finish. Within the span of a few years, the vehicle market has displayed an array of models that were hitherto undreamt of. Ford, General Motors, Toyota, Volvo are household names today. Launch of a vehicle in one category spawns a war for the throne.
The Ikon, Accent and Baleno have been launched. The Wagon R, due next, is predicted to give tough competition to those already in that sector. Czech carmaker, Skoda, a subsidiary of German auto major Volkswagen, is introducing the Octavia. India's only Sports car, the San Storm, is all set to race into our hearts. Hero Motors and the Kinetic Group are both set to launch new models.

In the three-wheeler market, after its eco-friendly Bijlee, Mahindra & Mahindra plan to enter the market in a big way with their new diesel engine vehicle yet to be christened. Toyota has been to enter the multi-utility segment with the launch of its Qualis. In these last years of the millennium, suffice it is to say that Indian cars will only grow from strength to strength.

There are 48 companies in the Automobile Industry in India that comprise of all vehicles, including two and three-wheelers, Passenger Cars and multi-utility vehicles, light ,medium and heavy commercial vehicles, agriculture and earth moving machinery. Since the inception of the Automobile Industry in India till liberalization since 1942 to 1991, in a fifty-year period only 31 companies have been established in the Industry; while in post-liberalization period in a ten-years period from 1992 till 2001, 17 companies entered to the Industry.

Most of these new entrance all multinational companies that have joint venture with Indian companies. Multinational companies own more than 50% stake in their joint ventures, and sometimes this stake comes near to 100%. For example Italian Auto major, Fiat Auto Spa has 94.77% stake in Fiat India Limited. A few of these new companies are fully subsidiary of foreign companies like Yamaha Motor India Ltd which is 100% subsidiary of Yamaha Motor Company of Japan. Some Indian Automobile companies have several subsidiaries for manufacturing different vehicles, same as Eicher Ltd, Sonalika Group, Escorts Ltd and Mahindra & Mahindra. Eicher Ltd includes Eicher Tractors Ltd for tractors manufacturing and Royal Enfield Motors Limited in motorcycles section. Sonalika Group has International Tractors Limited for the manufacture of tractors incorporated 1995 and Sonalika Agriculture Corporation was established in 1971 that has approximately 80% share in Indian market of farm machinery. Escorts Ltd also includes Escorts Tractors Ltd and Escorts JCB Ltd. Mahindra & Mahindra has Mahindra Nissan Allwyn and Gujarat Tractors Corporation as subsidiaries.
Introduction of Company Profile of Automobile Industry of India

Chapter 1

Table 1.1 Selected of Automobile Companies for Research Work

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Selected of Automobile Companies for Research Work</th>
<th>Production</th>
<th>Date of Incorporation</th>
<th>Listing Date of BSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hero Moto Corp Limited</td>
<td>Two &amp; Three-Wheeler</td>
<td>1984</td>
<td>1985</td>
</tr>
<tr>
<td>2</td>
<td>TVS Motors Company Limited</td>
<td>Two &amp; Three-Wheeler</td>
<td>1982</td>
<td>2000</td>
</tr>
<tr>
<td>3</td>
<td>Scooter India Ltd</td>
<td>Two &amp; Three-Wheeler</td>
<td>1972</td>
<td>1975</td>
</tr>
<tr>
<td>4</td>
<td>LML Ltd</td>
<td>Two &amp; Three-Wheeler</td>
<td>1972</td>
<td>1980</td>
</tr>
<tr>
<td>5</td>
<td>Bajaj Auto Ltd.</td>
<td>Two &amp; Three-Wheeler</td>
<td>1945</td>
<td>1961</td>
</tr>
<tr>
<td>6</td>
<td>Hindustan Motors Limited</td>
<td>Passenger Car, MCVs, CVs, HCVs</td>
<td>1942</td>
<td>1956</td>
</tr>
<tr>
<td>7</td>
<td>Maruti Suzuki India Ltd</td>
<td>Passenger Car</td>
<td>1981</td>
<td>1981</td>
</tr>
<tr>
<td>8</td>
<td>Mahindra and Mahindra Ltd</td>
<td>LCVs, MCVs, HCVs</td>
<td>1945</td>
<td>1956</td>
</tr>
<tr>
<td>9</td>
<td>Ashok Leyland Ltd.</td>
<td>LCVs, MCVs, HCVs</td>
<td>1948</td>
<td>1976</td>
</tr>
<tr>
<td>10</td>
<td>Tata Motors Limited</td>
<td>LCVs, MCVs, HCVs</td>
<td>1945</td>
<td>1945</td>
</tr>
</tbody>
</table>

Several companies in the Industry were declared sick during their life; because they have come under the Sick Industrial Companies for Special Provisions Act, 1985. Thus they have been referred to the Board of Industrial and Financial Reconstruction (BIFR). Finally 26 companies in the industry have been listed in Bombay Stock Exchange (BSE). So the remained selected 10 companies have been considered as population of the study which has been explained in details in this chapter.

1.6 Development of Automobile Industry in India:

The amount of cumulative Foreign Direct Investment (FDI) inflow into the automobile industry during April 2000 to July 2012 was worth US$ 6,992 million, amounting to 4 per cent of the total FDI inflows, as per data provided by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce. The Indian small and light commercial vehicle segment is expected to grow at 18.5 per cent Compound Annual Growth Rate (CAGR) for the next five years, according to a report titled 'Strategic Assessment of Small and Light Commercial Vehicles Market in India' by Frost & Sullivan.

According to the recent data released by the Society of Indian Automobile Manufacturers (SIAM):
The cumulative production for April-June 2012 registered a growth of 7.65 per cent over April-June 2011, manufacturing 1,700,675 vehicles in June 2012.

Passenger vehicles segment grew at 9.71 per cent during April-June 2012, while overall commercial vehicle segment registered an expansion of 6.06 per cent year-on-year.

Two-wheelers sales registered a growth of 10.51 per cent during April-June 2012 wherein mopeds, motorcycles and scooters grew by 6.60 per cent, 6.79 per cent and 29.14 per cent, respectively.

**Major Developments and Investments**

- Mercedes-Benz India plans to increase its investment to Rs 850 crore by 2014. The German car maker through its dealer partners has already invested over Rs 480 crore in India. The company has also announced the starting of its new, start-of-the-art paint shop that is capable of water-based painting.

- The Volkswagen Group aims to increase output by 10-15 per cent on a €100 million (US$ 126.35 million) investment at its production facilities in Aurangabad and Chakan in Maharashtra.

- Nissan plans to introduce ten new passenger vehicles by the end of March 2016. Nissan India aims to double its vehicle sales in 2012-13 from 33,000 vehicles in 2011-12.

- Volvo Eicher Commercial Vehicles (VECV), the joint venture (JV) between Volvo and Eicher is ready a whole new range of trucks with new platforms, engines and cabins. VECV has already invested Rs 700 crore in the business.

- Toyota Kirloskar plans to increase capacity at its two plants in Bidadi, Karnataka, from 310,000 units to 400,000 units a year. Capacity at the first plant would rise from 90,000 units to 100,000 units, at a cost of Rs 70 crore and the second plant's capacity is being increased from 120,000 units to 210,000 units, with an investment of Rs 830 crore.

- Blackstone Capital Partners in Singapore has signed an agreement to acquire 12.5 per cent stake of International Tractors Ltd (ITL) in a structured transaction worth US$ 100 million.
Mahindra Reva Electric Vehicles has inaugurated a new manufacturing facility in Bommasandra on the outskirts of Bengaluru, Karnataka. The new manufacturing facility has an installed capacity to produce 30,000 vehicles annually.

Mahindra & Mahindra Ltd has started a technical centre in Troy, Michigan, to leverage on the design and consulting service resources available in the region. The firm intends to use the centre to support company's automotive and tractor engineering requirements in India.

DC Design's Avanti would be the first sports car to be designed and manufactured in India. The car's prototype has been showcased at the 11th Auto Expo and has been priced at Rs 2.5 million.

Yamaha Motor, Japan plans to use India as a key global hub for motorcycles and scooters. Yamaha will also use India as one of its four regional procurement bases to source parts for its global two-wheeler operations. The company also plans to expand its sales network across India in order to take its product closer to its customer base particularly in the tier II and tier III cities.

Bajaj Auto Ltd has entered into an agreement with Kawasaki Heavy Industries, under which Bajaj motorcycles will be assembled and sold in Indonesia through Kawasaki's distribution network as co-branded products.

Hero MotoCorp Ltd has invested US$ 20 million in the US-based Erik Buell Racing (EBR). The investment will help EBR expand its Milwaukee production capacity and hire more people in its research and development (R&D) team.

1.7 **GOVERNMENT POLICY OF AUTOMOBILE INDUSTRY:**

The vision of the Indian government is to establish a competitive automobile sector. To realize its vision the Indian government has released many policies and provided many incentives to automobile companies both global and local. There has seen an unprecedented growth in the Indian automobile sector with the number of vehicles increasing by about 37% in the past five years.

The government has policies which provide fair opportunities to both Indian and foreign automobile manufacturers to establish a competitive environment. Although the automobile policies are altered time and again, the Indian government is looking at major
reform of policies set in the 1980’s. To formulate reforms for the next generation the Indian government is looking at developing in areas of greener cars, intelligent transport systems, recycling worn out vehicles, automotive research and development and improved vehicle safety.

The auto emission rules issued by the government in recent years ensured that all the vehicles manufactured in India met international standards. Currently every vehicle being manufactured in the country by domestic and foreign companies have to fulfill criteria stated with ‘Indian Standards’ (IS) and ‘Automotive Industry standards’ (AIS) issued through the ‘Central Motor Vehicle Rules’ which are as stringent as their European counterparts. Even when the vehicle is on the road, the vehicle needs to get Pollution Under Control (PUC) certificates every 6 months. The PUC test on the other hand is in the hands of the private testing and is easily flexible. The Indian government is looking at reforming these rules to encourage lower emission vehicles on the Indian roads. These reforms are being made with the help of automobile and automobile manufacturers in Indian and in European Union and Germany. The Indian Standards and Automotive Industry standards also cover safety requirements.

The automobile ministry has set a constant 8% to 20% excise duty on Indian manufactured automobiles and auto components. Recently policies concerning reduction in duty against exported cars are also in effect with the new tax being around 16%. Along with this the tariff policy is going to be monitored regularly to maintain a balance between the international and the domestic trade markets. Custom duty is set at 10% for automobiles and automobile components but increases to 100% for vehicles with large cylinders. Central Sales tax (CST) is set around 3% and 1% to 2% education cess additional. For sale in India the vehicles attracts Value Added Tax (VAT) which varies from state to state and is under 13% of the vehicles value. VAT is paid by the end customer. Overall an automobile manufacturer in India has to pay 12% of the manufacturing cost to the Indian Government.

To further attract foreign investment, the government has removed the entry of minimum capital investment. This has been instrumental in attracting component manufacturers looking for low cost manufacturing plants. The policies also actively promote hybrid low emission or electric vehicles with low taxes and incentives live 100%
lifting of levy associated with customs duty. Individual states go out of their way to attract renowned automobile manufactures with land to setup a plant and transportation facilities. Hence having huge pockets and looking for a land in India is not a problem with states such as Gujarat, Karnataka, Tamil Nadu, West Bengal, etc. wave with both arms.

1.8 **DEMAND DRIVERS OF AUTOMOBILE INDUSTRY:**

- **AUTOMOBILE INDUSTRY DRIVING KEY SUCCESS FACTORS:**
  The Key Success factors in the Automobile Vehicle Manufacturing industry are:
  
a. **Efficiency factor** :- Improve labour productivity, labour flexibility, and capital efficiency.

  b. **Resource Availability** :- Quality manpower availability, infrastructure improvements, and raw material availability

  c. **Effective cost controls** :- Close relationship with supplies and goods distribution channels.

  d. **Establishment of export markets** :- Growth of export markets

  e. **Having an extensive distribution/collection network** :- Goods distribution channels

  f. **Successful industrial relations policy** :- Ethical and tactical industrial relations

  g. **Access to the latest available and most efficient technology and techniques** :- The degree of investment in technological improvements and product development.

  h. **Optimum capacity utilization** :- The level of plant utilization

  i. **Management of high quality assets portfolio** :- Understanding implications from Government policies.

- **INDIAN AUTOMOBILE INDUSTRY SWOT ANALYSIS:**
  
  ! **STRENGTHS:**

  ✓ Globally cost competitive.

  ✓ Adheres to strict quality controls.

  ✓ Adoption or Access to latest technology.
Introduction of Company Profile of Automobile Industry of India

WEAKNESS:

✓ Low research and development capability.
✓ Industry is exposed to cyclical downturns in the automotive industry.
✓ Most component companies are dependent on global majors for technology.

OPPORTUNITIES:

✓ Sourcing hub for global automobile majors.
✓ Export opportunities may be realized through diversification of export basket.

THREATS:

✓ Pressure on prices from OEM’s continues.
✓ Imports from FTA Regime Countries, in certain component segments are a threat to local industry.
✓ Smaller players, who do not upgrade to global standards, would get extinct.

1.9 RECENT NEW TRENDS OF AUTOMOBILE INDUSTRY IN INDIA:

India is multibillion-dollar market for automobiles, accessories and components. Apart from being the world’s largest manufacturer of two wheelers and fifth largest manufacturer of commercial vehicles, India is the fourth largest passenger car market in Asia. In recent years there has been a marked rise in the number of international industrial concerns setting up a base in India. The automotive industry is well represented among them. In 2008 three million vehicles were manufactured in India. In this sector, the subcontinent is one of the biggest growth markets in the Asian region, despite the late international opening in 1992. Sales of private vehicles rose in 2007 by 15 percent to 1.5 million units. Continuing strong growth is also being experienced in exports. Exports of private cars and commercial vehicles rose by 14 percent for the period April 2007 to March 2008. Currently the level of car ownership in India is moderate, but with the expansion of the middle classes, this is expected to increase considerably.
1.10 **PROFILE OF SELECTED INDIAN AUTOMOBILE COMPANY:**

1.10.1 **HERO MOTOCORP LIMITED:**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Hero MotoCorp Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td><img src="hero-motocorp-logo.png" alt="Hero MotoCorp Logo" /></td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>1984</td>
</tr>
<tr>
<td>Market Cap</td>
<td>354055.921875 (Rs. in Millions)</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>34, Community Centre, Basant Lok, Vasant Vihar, New Delhi-110057, Delhi, <a href="http://www.heromotocorp.com">www.heromotocorp.com</a></td>
</tr>
</tbody>
</table>
| Management Details | Chairperson - Brijmohan Lall Munjal  
                        MD - Pawan Munjal  
| Business Operation | Automobile Two & Three Wheelers |
| Background         | Hero MotoCorp is the World's single largest two-wheeler motorcycle company. Honda Motor Company of Japan and the Hero Group entered a joint venture to setup Hero Honda Motors Limited in 1984. The joint venture between India's Hero Group and Honda Motor Company, Japan has not only created the world's single largest two wheeler company but also one of the most successful joint ventures. |
| Financials (ending year-2012) | Total Income - Rs. 240270.6 Million  
                                Net Profit - Rs. Million |
| Company Secretary  | Ilam C. Kamboj |
| Auditors           | AF Ferguson & Co |
### 1.10.2 TVS MOTOR COMPANY LTD:

<table>
<thead>
<tr>
<th><strong>Company Name</strong></th>
<th>TVS Motor Company Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Logo</strong></td>
<td><img src="image" alt="TVS Motor Logo" /></td>
</tr>
<tr>
<td><strong>Date of Establishment</strong></td>
<td>1982</td>
</tr>
<tr>
<td><strong>Market Cap</strong></td>
<td>21473.9375528 (Rs. in Millions)</td>
</tr>
<tr>
<td><strong>Corporate Address</strong></td>
<td>Jayalakshmi Estates, 29 (Old No.8) Haddows Road, Chennai-600006, Tamil Nadu. <a href="http://www.tvsmotor.co.in">www.tvsmotor.co.in</a></td>
</tr>
</tbody>
</table>
| **Management Details** | **Chairperson** - Venu Srinivasan  
**MD** - Venu Srinivasan  
| **Business Operation** | Automobile Two & Three Wheelers |
| **Background** | TVS Motor Company was incorporated in 1982. It is third largest two-wheeler manufacturer in India and one among the top ten in the world. TVS Motor is the flagship company of the $4 billion TVS Group. The company manufactures a wide range of two wheelers such as mopeds, scooters and motorcycles. It has four manufacturing |
| **Financials (ending year-2012)** | **Total Income** - Rs. 71479.1 Million  
**Net Profit** - Rs. Million |
| **Company Secretary** | K S Srinivasan |
| **Bankers** | Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank. |
| **Auditors** | Sundaram & Srinivasan |
# Introduction of Company Profile of Automobile Industry of India

## 1.10.3 SCOOTER INDIA LIMITED:

<table>
<thead>
<tr>
<th><strong>Company Name</strong></th>
<th>Scooter India Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Logo</strong></td>
<td><img src="image" alt="Scooter India Limited Logo" /></td>
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<tr>
<td><strong>Date of Establishment</strong></td>
<td>1972</td>
</tr>
<tr>
<td><strong>Market Cap</strong></td>
<td>1582.114984 (Rs. in Millions)</td>
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<tr>
<td><strong>Corporate Address</strong></td>
<td>Lucknow-Kanpur Road, (16th Mile Stone), Post Bag No. 23 G. P. O., P. O. Sarojini Nagar, Lucknow-226008, Uttar Pradesh. <a href="http://www.scootersindia.com">www.scootersindia.com</a></td>
</tr>
</tbody>
</table>
| **Management Details** | **Chairperson** - Ajai Kumar  
**MD** - Ajai Kumar  
**Directors** - Ajai Kumar, Ajay Kumar, Harbhajan Singh, P. K. Brahma, P. Muthusamy, P. P. Sarkar, S. Chakraborty, |
| **Business Operation** | Automobile Two & Three Wheelers |
| **Background** | Scooters India Limited, incorporated as a Government of India enterprise at Lucknow, on September 7, 1972, is an ISO 9001:2000 and ISO 14001 company, the capital of Uttar Pradesh on NH No 25 and is well connected by road, rail and air. It is a totally integrated automobile plant, engaged in designing, developing, manufacturing and marketing a broads |
| **Financials (ending year-2012)** | **Total Income** - Rs. 2119.558 Million  
**Net Profit** - Rs. Million |
| **Company Secretary** | N.A. |
| **Bankers** | Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank |
| **Auditors** | Avinash K Rastogi & Associates |
### 1.10.4 LML:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>LML (Lohia Machines Private Limited)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Logo</strong></td>
<td><img src="image" alt="LML Logo" /></td>
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<tr>
<td><strong>Date of Establishment</strong></td>
<td>1972</td>
</tr>
<tr>
<td><strong>Market Cap</strong></td>
<td>632.0991072 (Rs. in Millions)</td>
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<tr>
<td><strong>Corporate Address</strong></td>
<td>C-3, Panki Industrial Estate, Site-1, Kanpur-208022, Uttar Pradesh</td>
</tr>
</tbody>
</table>
| **Management Details**| **Chairperson** - Deepak Kumar Singhana  
**MD** - Deepak Kumar Singhana  
| **Business Operation**| Automobile Two & Three Wheelers |
| **Background**        | Kanpur based two-wheeler major LML was established in 1972 as Lohia Machineries by the Singhana family to manufacture machinery for the synthetic fibers industry. It commenced production of 100cc scooters in 1983, in technical collaboration with Piaggio Vespa, of Italy. They have now entered the motorcycle market in collaboration with Daelim of Korea. |
| **Financials**        | **Total Income** - Rs. 3123.197 Million  
**Net Profit** - Rs. Million |
| **Company Secretary** | K. C. Agarwal                        |
| **Bankers**           | Axis Bank, Deutsche Bank, HDFC Bank, HSBC Bank, Jammu & Kashmir Bank |
| **Auditors**          | Khandelwal Jain & Co, Parikh & Jain  |
1.10.5 BAJAJ AUTO LTD:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Bajaj Auto Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td><img src="image" alt="Bajaj Logo" /></td>
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<tr>
<td>Date of Establishment</td>
<td>1945</td>
</tr>
<tr>
<td>Market Cap</td>
<td>594417.732484 (Rs. in Millions)</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>Bajaj Auto Ltd Complex, Mumbai - Pune Road, Akurdi Pune-411035, Maharashtra <a href="http://www.bajajauto.com">www.bajajauto.com</a></td>
</tr>
</tbody>
</table>
| Management Details | **Chairperson** - Rahul Bajaj  
**MD** - Rajiv Bajaj  
| Business Operation | Automobile Two & Three Wheelers |
| Background | Bajaj Auto is a $2.3 billion company founded in 1926. Bajaj Auto is world’s fourth largest two- and three-wheeler manufacturer. Bajaj Auto is into manufacturing motorcycles, scooters and three wheelers. In India, Bajaj Auto has a distribution network of 485 dealers and over 1,600 |
| Financials (ending year-2012) | **Total Income** - Rs. 201556.6 Million  
**Net Profit** - Rs. Million |
| Company Secretary | J. Sridhar |
| Bankers | Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank |
| Auditors | Dalal & Shah |
1.10.6 HINDUSTAN MOTORS LIMITED:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Hindustan Motors Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td><img src="image" alt="Hindustan Motors Logo" /></td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>1942</td>
</tr>
<tr>
<td>Market Cap</td>
<td>2002.92840412 (Rs. in Millions)</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>Birla Building, 14th Floor, 9/1, R. N. Mukherjee Road, Kolkata-700001, West Bengal. <a href="http://www.hindmotor.com">www.hindmotor.com</a></td>
</tr>
</tbody>
</table>
| Management Details | **Chairperson** - C K Birla  
**MD** - Uttam Bose  
| Business Operation | Automobiles - Passenger Cars |
| Background | Hindustan Motors (HML) is an automobile manufacturing company incorporated in the year 1942. It is flagship company of the CK Birla Group. The company started operations in a small assembly unit in Port Okha near Gujarat, which was later shifted to Uttarpara, West Bengal in 1948. In 1948 the company began its production of the Ambassador car, which became first Indian company |
| Financials (ending year-2012) | **Total Income** - Rs. 5031.945 Million  
**Net Profit** - Rs. Million |
| Company Secretary | Yogesh Goenka |
| Bankers | Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank |
| Auditors | SR Batliboi & Co |
### 1.10.7 MARUTI SUZUKI INDIA LIMITED:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Maruti Suzuki India LIMITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td>![Maruti Suzuki Logo]</td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>1981</td>
</tr>
<tr>
<td>Market Cap</td>
<td>454932.225979 ( Rs. in Millions )</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>Plot No 1, Nelson Mandela Marg, Vasant Kunj, New Delhi-110070, Delhi. <a href="http://www.marutisuzuki.com">www.marutisuzuki.com</a></td>
</tr>
<tr>
<td>Management Details</td>
<td></td>
</tr>
<tr>
<td>Chairperson</td>
<td>R. C. Bhargava</td>
</tr>
<tr>
<td>MD - S Nakanishi</td>
<td></td>
</tr>
<tr>
<td>Business Operation</td>
<td>Automobiles - Passenger Cars</td>
</tr>
<tr>
<td>Background</td>
<td>Maruti Suzuki India Limited (MSIL), formerly known as Maruti Udyog Limited, a subsidiary of Suzuki Motor Corporation of Japan, is India's largest passenger car company, accounting for over 50 per cent of the domestic car market. Maruti Udyog Limited was incorporated in 1981 under the provisions of Indian Companies Act 1956.</td>
</tr>
<tr>
<td>Financials (ending year-2012)</td>
<td></td>
</tr>
<tr>
<td>Total Income</td>
<td>Rs. 364139 Million ( year ending Mar 2012)</td>
</tr>
<tr>
<td>Net Profit</td>
<td>Rs. Million ( year ending Mar 2012)</td>
</tr>
<tr>
<td>Company Secretary</td>
<td>S. Ravi Aiyar</td>
</tr>
<tr>
<td>Bankers</td>
<td>Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank</td>
</tr>
<tr>
<td>Auditors</td>
<td>Price Waterhouse &amp; Co.</td>
</tr>
</tbody>
</table>
**1.10.8 MAHINDRA & MAHINDRA LIMITED:**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Mahindra &amp; Mahindra Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Logo</strong></td>
<td><img src="image" alt="Mahindra Logo" /></td>
</tr>
<tr>
<td><strong>Date of Establishment</strong></td>
<td>1945</td>
</tr>
<tr>
<td><strong>Market Cap</strong></td>
<td>541254.7354518 (Rs. in Millions)</td>
</tr>
<tr>
<td><strong>Corporate Address</strong></td>
<td>Gateway Building, Apollo Bunder, Mumbai-400001, Maharashtra. <a href="http://www.mahindra.com">www.mahindra.com</a></td>
</tr>
</tbody>
</table>
| **Management Details**  | Chairperson - Anand G. Mahindra  
                          | MD - Anand G. Mahindra  
| **Business Operation**  | Automobiles-Tractors |
| **Background**          | Mahindra & Mahindra was established on October 2, 1945 when K.C. Mahindra visited the United States of America as Chairman of the India Supply Mission. He met Barney Roos, inventor of the rugged 'general purpose vehicle' or Jeep and had a flash of inspiration. |
| **Financials**          | **Total Income** - Rs. 323369.7 Million  
                          | **Net Profit** - Rs. Million |
| **Company Secretary**   | Narayan Shankar |
| **Bankers**             | Canara Bank, City Bank, HDFC Bank, HSBC Bank, ICICI Bank, Punjab National Bank, Standard Chartered Bank. |
| **Auditors**            | Deloittee Haskins & Sells. |
1.10.9 ASHOK LEYLAND:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Ashok Leyland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td><img src="image" alt="Company Logo" /></td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>1948</td>
</tr>
<tr>
<td>Market Cap</td>
<td>69975.7954742 (Rs. in Millions)</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>No.1 Sardar Patel Road, Guindy, Chennai-600032, Tamil Nadu. <a href="http://www.ashokleyland.com">www.ashokleyland.com</a></td>
</tr>
</tbody>
</table>
| Management Details | Chairperson - Dheeraj G. Hinduja  
MD - Vinod K. Dasari  
Directors – A. Bhatt, A. K. Jain, A. R. Chandrasekharan, and others. |
| Business Operation | Automobiles-Trucks/Lcv |
| Background | The origin of Ashok Leyland, a Hinduja group company can be traced to the urge for self-reliance, felt by independent India. Pandit Jawaharlal Nehru, India's first Prime Minister persuaded Raghunandan Saran, an industrialist, to enter automotive manufacture. In 1948, Ashok Motors was set up in what was then Madras, for the assembly of Austin Cars. The Company's destiny and name changed soon w |
| Financials (ending year-2012) | Total Income - Rs. 133579.512 Million  
Net Profit - Rs. Million |
| Company Secretary | S. Venkata Subramanian |
| Bankers | ABN Amro Bank, Bank of Tokyo Mitsubishi, Deutsche Bank, Indian Bank, Vijaya Bank. |
| Auditors | M. S. Krishnaswami & Rajan, Deloittee Haskins & Sells. |
1.10.10 TATA MOTORS LIMITED:

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Tata Motors Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Logo</td>
<td><img src="image" alt="Tata Motors Logo" /></td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>1945</td>
</tr>
<tr>
<td>Market Cap</td>
<td>874553.114263 (Rs. in Millions)</td>
</tr>
<tr>
<td>Corporate Address</td>
<td>Bombay House, 24, Homi Mody Street, Mumbai-400001, Maharashtra. <a href="http://www.tatamotors.com">www.tatamotors.com</a></td>
</tr>
<tr>
<td>Management Details</td>
<td></td>
</tr>
<tr>
<td>Chairperson</td>
<td>Cyrus P. Mistry</td>
</tr>
<tr>
<td>MD</td>
<td>Karl Slym</td>
</tr>
<tr>
<td>Business Operation</td>
<td>Automobiles-Trucks/Lcv</td>
</tr>
<tr>
<td>Background</td>
<td></td>
</tr>
<tr>
<td>Tata Motors was established in 1945 as Tata Engineering and Locomotive Co. Ltd. to manufacture locomotives and other engineering products. It is India's largest automobile company, with standalone revenues of Rs. 25,660.79 crores (USD 5.5 billion) in 2008-09. It is the leader in commercial vehicles in each segment, and among the top three in passenger vehicles with winning products in the compact, midsize</td>
<td></td>
</tr>
<tr>
<td>Financials (ending year-2012)</td>
<td>Total Income - Rs. 548806.4 Million</td>
</tr>
<tr>
<td></td>
<td>Net Profit - Rs. Million</td>
</tr>
<tr>
<td>Company Secretary</td>
<td>H. K. Sethna</td>
</tr>
<tr>
<td>Auditors</td>
<td>Deloittee Haskins &amp; Sells</td>
</tr>
</tbody>
</table>
1.11 ACHIEVEMENTS OF THE SELECTED AUTOMOBILE COMPANY:

1.11.1 HERO MOTOCORP LIMITED:

a) Japan has earned the reputation as one of the most successful joint ventures after its attachments with India’s Hero Group of Honda Motor Company.

b) A legendary 'Fill it - Shut it - Forget it' campaign captured the imagination of commuters across India, and Hero Honda sold millions of bikes purely on the commitment of increased mileage and less pollution.

c) India stands similar to Finland, Ireland and Sweden for treading roads today.

d) Hero Honda became the first company in the country to introduce four-stroke motorcycles and set the standards for fuel efficiency, pollution control and quality.

e) Two of three globally benchmarked manufacturing facilities are situated at Dharuhera of Gurgaon in Haryana of the third is at Haridwar, Uttrakhand.

f) In the Indian two wheeler market, Hero Honda is constantly working towards consolidating its position in the market place.

1.11.2 TVS MOTOR COMPANY:

a) TVS Motor is the head company at the $ 4 billion TVS Group.

b) The company produces manufactures a wide range of two wheelers such as mopeds, scooters and motorcycles.

c) Company has four manufacturing facilities. They are situated at Hosur, Mysore, Himachal Pradesh and Indonesia.

d) They have production capacity of 300 thousand units per year.

e) In the motorcycles segment company it has created brands like TVS Apache, TVS Star and TVS Flame.

f) TVS Motor produces brands like TVS Scooty pep+ and TVS Scooty teenz in variomatic scoter segment.[Non-gear]

g) It has created brands like TVS XL Super and TVS XL Heavy Duty in mopeds segment.
1.11.3 SCOOTERS INDIA LIMITED:
   a) Scooters India Limited, is an ISO 9001:2000 and ISO 14001 company, located at 16 Km milestone, South-west of Lucknow, the capital of Uttar Pradesh on NH No 25.
   b) It is totally considered automobile plant.
   c) It is engaged in designing, developing, manufacturing and marketing a broad spectrum of conventional and non-conventional fuel driven 3-wheelers.
   d) The company’s plant originated in Innocent of Italy from which it bought over the plant and machinery, design, documentation, copyright etc.
   e) The company is very well-known by its trade name “LAMBRETIA/LAMBRO”.
   f) Company took brand name of Vijai super for domestic market and lambretta for overseas market at its initial state of commercial production of scoter.
   g) These three-wheelers have become more relevant in the present socio-economic environment as it transports goods and passengers at least cost.
   h) The company purposively stopped 2-wheeler production in 1997 and its paid attention on manufacturing of three-wheelers under brand name ‘Vikram’.
   i) The organization has various departments which are controlled by SIL.
   j) A product from the generation of Vikram is in demand in various countries, such as Germany, Italy, Sudan, Nigeria, Nepal and Bangladesh.
   k) The company aims to grow into an environment friendly and globally competitive company constantly striving to meet the changing needs of customer through constantly improving existing products, adding new products and expanding customer base.

1.11.4 LML:
   a) Singhania family established two wheeler major LML and gave it a name of Lohia Machineries.
   b) Their purposed was to manufactures machinery for the synthetic fibers industry.
c) It had production of 100 cc scooters in 1983, in technical collaboration with Piaggio Vespa, of Italy.

d) The new LML NV is produced with new features such as a bigger taillight, cushioned backrest, new handle bar design, new speedometer, utility box and a larger glove compartment.

e) The Freedom Prima has a 125cc version with an option of a 4 or 5 speed gearbox and disc brakes.

f) New LML Graptor is set against the Bajaj Pulsar in the Power segment.

1.11.5 BAJAJ AUTO LTD:

a) Bajaj Auto is a $2.3 billion company established in 1926. Bajaj Auto is world’s fourth largest two- and three-wheeler manufacturer.

b) In India, Bajaj Auto is distributed with 485 dealers and over 1,600 authorized services centers.

c) It has opened these stores under the name “Bajaj Probiking” in areas like Pune, Nashik, Ahmadabad, Chennai, Hyderabad, Kolkata, Navi Mumbai, Chandigarh, New Delhi, Faridabad and Mangalore.

d) It is connected with 50 countries including dominant presence in Sri Lanka, Colombia, Bangladesh, Mexico, Central America, Peru and Egypt.

e) For manufacture latest models in the two wheeler space, Bajaj has tied up with Kawasaki Heavy Industries of Japan.

f) Bajaj Auto has launched brands like Boxer, Caliber, Wind125, Pulsar and many more.

1.11.6 HINDUSTAN MOTORS LIMITED:

a) Hindustan Motors (HML) is an automobile manufacturing company established in the year 1942. It is owned company of the CK Birla Group.

b) The Ambassador car, the first India car was produced by this company in 1948.

c) Hindustan Motors (HML) owns three manufacturing facilities located in Tiruvallur (Chennai), Uttarpara (Kolkata) and Pithampur (Indore).
d) In the year 1987, the company commenced production of petrol engines and transmissions at Pithampur, Madhya Pradesh, in collaboration with Isuzu Motor Company of Japan.

e) For production of Lancer the company has expanded its connection with Mitsubishi Motor Japan.

f) Hindustan Motors Exports is a wholly owned subsidiary of HML. It exports all products manufactured by the company.

1.11.7 MARUTI SUZUKI INDIA LIMITED. :

a) Maruti udyog Limited is known as subsidiary of Suzuki Motor Corporation of Japan and is indentified as India’s largest passenger car company.

b) In 1982 a JV was signed between Government of India and Suzuki Motor Corporation.

c) The company offer full range of cars- from entry level Maruti 800 & Alto to stylish hatchback Ritz, A star, Swift, Wagon R, Estillo and sedans DZire, SX4 and Sports Utility vehicle Grand Vitara.

d) The company has produced and sold over 7.5 million vehicles in India and exported over 500,000 units to Europe and other countries.

e) The main aims of these companies are to make a people’s car for middle class India.

f) Suzuki’s technology can pack power and performance into a compact lightweight engine which is clear and fuel efficient.

g) The characteristics like product quality, safety and cost consciousness make their cars extremely relevant to Indian customers and Indian conditions.

h) Maruti brought to India, Japan’s powerful philosophy, smaller fewer lighter shorter and neater.

i) Maruti Suzuki exports entry-level models across the globe to over 100 countries and the focus has been to identify new markets.
1.11.8 MAHINDRA AND MAHINDRA LIMITED:
   a) The Mahindra brothers joined hands with a distinguished gentleman called Ghulam Mohammed. And, Mahindra & Mohammed was set up as a franchise for assembling jeeps from Willys, USA.
   b) Before independence the company was named as Mahindra and Mohammed which had been charge after independence and was called as Mahindra and Mahindra.
   c) Mahindra & Mahindra is the only Indian company among the top three tractor manufacturers in the world.
   d) The Group has a leading presence in key sectors of the Indian economy.
   e) Catering to the Sector's diverse customer base spanning rural and semi urban customers, defence requirements and luxurious urban utility vehicles or SUVs.
   f) Growing market expectations are in breath of the manufacturing plant of this company.
   g) Utility Vehicles, Light commercial vehicles and 3 wheelers are manufactured at the Zaheerabad plant in Andhra Pradesh and three-wheelers at the Haridwar plant.

1.11.9 ASHOK LEYLAND:
   a) Pandit Jawaharlal Nehru, India's first Prime Minister persuaded Raghunandan Saran, an industrialist, to enter automotive manufacture.
   b) The Company's destiny and name changed soon with equity participation by British Leyland and Ashok Leyland commenced manufacture of commercial vehicles in 1955.
   c) The company’s tie ups with international technology leaders and through vigorous in hours R & D, helped to achieve India’s commercial vehicle industry with tradition of technological leadership.
   d) Company’s major philosophy is “Designing durable products that market economic sense to the consumers using appropriate technology”.
e) Ashok Leyland vehicles have built a reputation for reliability and ruggedness. The 5,00,000 vehicles we have put on the roads have considerably eased the additional pressure placed on road transportation in independent India.

f) The overseas holding by land rover Leyland international holding limited was overcome with a joint venture between the hinduja group, the Nonresident Indian transnational group and IVECO.

g) Ashok Leyland manufactured the major products and upgraded them to match world class standard of technology.

h) Ashok Leyland offers a wide range of products. Eight out of ten metro state transport buses in India are from Ashok Leyland. With over 60 million passengers a day, Ashok Leyland buses carry more people than the entire Indian rail network.

1.11.10 TATA MOTORS LIMITED:

a) For the production of locomotives and other engineering products, Tata Motors company came into existences and for at purpose it was named as Tata Engineering and Locomotive co. Ltd.

b) It leads the commercial vehicles in every segment and with the compact midsize car and utility vehicles segments of this company always wins.

c) The company is the world's fourth largest truck manufacturer, and the world's second largest bus manufacturer.

d) The mainly designed philosophy of this company is “best in the manner in which they operate best in the products they deliver and best in their value system and ethics.

e) Tata Motors, the first company from India's engineering sector to be listed in the New York Stock Exchange in September 2004, has also emerged as an international automobile company.

f) Through subsidiaries and associate companies, Tata Motors has good business relation with the UK, South Korea, Thailand and Spain.

g) A Tata motor is also increasing its international and reputation established through exports since 1961.
h) India’s first fully indigenous passenger car by Tata motors became India’s largest selling car in its segments within two years of its production.

i) A development, which signifies a first for the global automobile industry, the Nano brings the comfort and safety of a car within the reach of thousands of families. The standard version has been priced at Rs.100,000.

j) Tata motors took place in a new era in the Indian automobile industry and kept with its pioneering tradition by launching its new range of world standard trucks.

k) They are best in their power, speed, carrying capacity operating economy and trims.

l) Tata motors follow the rules and regulation of the Tata Group, by committing in letter and spirit to corporate social responsibility.
1.12 **REFERENCE:**

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