

# [Impact of tata nano on automobile industry](https://assignbuster.com/impact-of-tata-nano-on-automobile-industry/)

The origin of automobile is not certain. In this section of automobile history, we will only discuss about the phases of automobile in the development and modernisation process since the first car was shipped to India. We will start automotive history from this point of time.

The automobile industry has changed the way people live and work. The earliest of modern cars was manufactured in the year 1895. Shortly the first appearance of the car followed in India. As the century truned, three cars were imported in Mumbai (India). Within decade there were total of 1025 cars in the city.

The dawn of automobile actually goes back to 4000 years when the first wheel was used for transportation in India. In the begining of 15th century Portuguese arrived in China and the interaction of the two cultures led to a variety of new technologies, including the creation of a wheel that turned under its own power. By 1600s small steam-powered engine models was developed, but it took another century before a full-sized engine-powered vehicle was created.

The actual horseless carriage was introduced in the year 1893 by brothers Charles and Frank Duryea. It was the first internal-combustion motor car of America, and it was followed by Henry Ford’s first experimental car that same year.

One of the highest-rated early luxury automobiles was the 1909 Rolls-Royce Silver Ghost that featured a quiet 6-cylinder engine, leather interior, folding windscreens and hood, and an aluminum body. It was usually driven by chauffeurs and emphasis was on comfort and style rather than speed.

During the 1920s, the cars exhibited design refinements such as balloon tires, pressed-steel wheels, and four-wheel brakes. Graham Paige DC Phaeton of 1929 featured an 8-cylinder engine and an aluminum body.

The 1937 Pontiac De Luxe sedan had roomy interior and rear-hinged back door that suited more to the needs of families. In 1930s, vehicles were less boxy and more streamlined than their predecessors. The 1940s saw features like automatic transmission, sealed-beam headlights, and tubeless tires.

The year 1957 brought powerful high-performance cars such as Mercedes-Benz 300SL. It was built on compact and stylized lines, and was capable of 230 kmh (144 mph).

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## Industry Overview:

Since the first car rolled out on the streets of Mumbai (then Bombay) in 1898, the Automobile Industry of India has come a long way. During its early stages the auto industry was overlooked by the then Government and the policies were also not favorable. The liberalization policy and various tax reliefs by the Govt. of India in recent years has made remarkable impacts on Indian Automobile Industry. Indian auto industry, which is currently growing at the pace of around 18 % per annum, has become a hot destination for global auto players like Volvo, General Motors and Ford.

A well developed transportation system plays a key role in the development of an economy, and India is no exception to it. With the growth of transportation system the Automotive Industry of India is also growing at rapid speed, occupying an important place on the ‘ canvas’ of Indian economy.

Today Indian automotive industry is fully capable of producing various kinds of vehicles and can be divided into 03 broad categories : Cars, two-wheelers and heavy vehicles.

## India is the 11th largest Passenger Cars producing countries in the world and 4th largest in Heavy Trucks

## Snippets:

The first automobile in India rolled in 1897 in Bombay.

India is being recognized as potential emerging auto market.

Foreign players are adding to their investments in Indian auto industry.

Within two-wheelers, motorcycles contribute 80% of the segment size.

Unlike the USA, the Indian passenger vehicle market is dominated by cars (79%).

Tata Motors dominates over 60% of the Indian commercial vehicle market.

2/3rd of auto component production is consumed directly by OEMs.

India is the largest three-wheeler market in the world.

India is the largest two-wheeler manufacturer in the world.

India is the second largest tractor manufacturer in the world.

India is the fifth largest commercial vehicle manufacturer in the world.

The number one global motorcycle manufacturer is in India.

India is the fourth largest car market in Asia – recently crossed the 1 million mark.

## SWOT OF AUTO INDUSTRY:

## Strengths:

Automobile industry is an established and an evergreen industry

India is the strongest player in the small car segment of the global automobile market

Indian companies are the best cost innovators

The automotive industry has long been known for its development and promulgation of the assembly-line

. Some of the greatest developments in the automotive supply chain lie in the development of Just-In-Time (JIT) inventory methods.

Through the use of advanced technologies, assembly line manufacturing, and JIT inventory management, the automotive industry has been able to achieve significant gains in productivity.

## Weakness:

Indian is lacking in proper infrastructure.

This is slowing the pace of growth of auto industry

Companies are not improving after sale services

Opportunities

The automotive ecosystem is in the midst of significant change, with increasing challenges in consumer demands, technology development, and globalization.

While demand for incumbent technologies will remain strong, alternative power trains could capture more than 20 percent of the global market by 2020, depending upon boundary conditions such as fuel taxation and emissions regulation set by governments as well as oil price development.

storage is in the heart of the next generation of efforts for fuel economy.

More realistic scenario will emerge for technologies using Hydrogen as automotive fuel.

Intelligent use of NCES (Non conventional energy sources) for powering Public Transport.

## Threats:

Global Crisis

Companies not focusing on R & D are under great risk

High competition from foreign players

Lack of technology for Indian

## Fast Growth in Automobiles Sector in India:

India is the second fastest growing automobile market in the world after China.

Over 2 million passenger vehicles were produced from April 2009 to Feb 2010, representing growth of nearly 25%.

India is emerging as a major production base for small cars, with output expected to reach 3 million units by 2016. The country is building a reputation in designing and manufacturing low cost cars.

Production of trucks and buses increased more than 35% between April 2009 and Feb 2010. An expanding highway network and overall economic growth is pushing up demand.

India is the second largest market for motorcycles worldwide. Output of nearly 10 million units was registered during April 2009 – Feb 2010, marking growth of nearly 25%.

The auto parts industry is also scaling up, as global car manufacturers are increasing their component sourcing from India, due to cost and engineering competencies.

Competition is set to intensify as more global firms enter the market.

Leading Indian Automobile Firms

Firm

Products

Foreign Partner

Market Capitalization (in $ Billions)

Stock Listing

Maruti Suzuki

Passenger Vehicles

Suzuki Motor

9. 2

Mumbai

Tata Motors

Passenger and Commercial Vehicles

Fiat

7. 4

Mumbai,

New York

Mahindra & Mahindra

Passenger and Commercial Vehicles, Tractors, Two-wheelers

Navistar for Commercial Vehicles; Renault for passenger cars

6. 1

Mumbai, London

Hero Honda

Two – Wheelers

Honda Motor

7. 7

Mumbai

Bajaj Auto

Two and Three – Wheelers

Renault-Nissan for planned small car

5. 7

Mumbai,

London (Holding Firm)

Market capitalization data based on full capitalization as on February 26, 2010

Among European manufacturers, Skoda Auto, the Czech subsidiary of Volkswagen, has built a relatively good position in the mid-sized sedan market. Volkswagen itself has been a recent entrant in the Indian market and has expanded its product range by launching a small hatchback. Fiat’s record in India has been patchy and it now relies on the Tata Motors dealer network to sell its products. While its venture with Mahindra has not been successful, French automaker Renault has opened a large assembly line, jointly owned by its Japanese associate Nissan. The Renault-Nissan alliance is expected to launch several models in the near future, with Nissan focusing more on the small car segment.

Luxury passenger cars have seen excellent demand growth, especially in recent years. However, the luxury segment now accounts for less than a percent of the total passenger vehicle market. Mercedes Benz and BMW have almost identical market shares while Audi has made rapid gains over the last year. All three manufacturers assemble cars in India from imported kits, which attract high import taxes, and hence product prices are higher than other markets. Jaguar and Land Rover, now owned by Tata Motors, are gradually expanding their dealerships in the country.

## FACTS:

The Automotive Industry in India is one of the largest industries and a key sector of the economy.

The Indian automotive industry started from 1991with the government’s de-licensing of the sector and subsequent opening up for 100 per cent FDI through automatic route. Since then many large global companies have set up their facilities in India taking the production of vehicle from 2 million in 1991 to 9. 7 million in 2006.

## At present, India is the world’s largest……..

Largest tractor and three-wheel vehicle producer.

Second largest two-wheel vehicle producer.

Fourth largest commercial vehicle producer.

Eleventh largest passenger car producer.

Mahindra & Mahindra, another large local manufacturer, derives the bulk of its sales from the SUV segment where it is the market leader. The firm has partnered with European manufacturer Renault to assemble and market a passenger car, but the venture has not performed well.

Several global manufacturers have struggled in India, though they have been present in the market for more than a decade. General Motors has seen a revival over the last year, after the firm launched low-priced hatchbacks under the Chevrolet brand. GM also sells small sedans and SUV’s, but volumes remain very low. The firm sold half of its Indian operations to Chinese automaker SAIC Group last year, and the joint venture is planning to introduce utility vehicles, besides passenger cars. Ford has been more successful in the small sedan segment in India, with the company recently launching a competitively priced small hatchback from its assembly line and engine plant near Chennai, in south India.

## History-Nano:

The introduction of the Nano received media attention due to its targeted low price. If ever there were a symbol of India’s ambitions to become a modern nation, it would surely be the Nano, the tiny car with the even tinier price-tag. A triumph of homegrown engineering, the $2, 200 (€1, 490, £1, 186) Nano encapsulates the dream of millions of Indians groping for a shot at urban prosperity.” The car is expected to boost the Indian economy, create entrepreneurial-opportunities across India, as well as expand the Indian car market by 65%. The car was envisioned by Ratan Tata, Chairman of the Tata Group and Tata Motors, who has described it as an eco-friendly “ people’s car”. Nano has been greatly appreciated by many sources and the media for its low-cost and eco-friendly initiatives which include using compressed-air as fuel and an electric-version (E-Nano). Tata Group is expected to mass-manufacture the Nano, particularly the electric-version, and, besides selling them in India, to also export them worldwide.

However, Tata Motors has promised that it would definitely release Nano’s eco-friendly models alongside the gasoline-model.

The Nano was originally to have been manufactured at a new factory in Singur, West Bengal, but increasingly violent protests forced Tata to pull out October 2008. Tata Motors is reportedly manufacturing Nano at its existing Pantnagar (Uttarakhand) plant and another plant has been proposed has also agreed to match all the incentives offered by West Bengal government. The upcoming plant at Sanand, Ahmedabad is to release the first lot of cars on 1 May 2010.

## Design:

The breakthrough innovations of the $2, 500 Nano car carry a lot of important lessons for Western executives

The announcement last month by Tata Motors of its newest car, the Nano, was revealing on many levels. The announcement generated extensive coverage and commentary, but just about everyone missed the Nano’s real significance, which goes far beyond the car itself.

But, O. K., let’s start with the car itself-particularly the price. At about $2, 500 retail, the Nano is the most inexpensive car in the world. Its closest competitor, the Maruti 800, made in India by Maruti Udyog, sells for roughly twice as much. To put this in perspective, the price of the entire Nano car is roughly equivalent to the price of a DVD player option in a luxury Western car. The low price point has left other auto companies scrambling to catch up.

“ Dream-dream and dream, because dream gives vision, vision gives thoughts and finally thoughts lead to the action”-India’s former President Dr. A. P. J. Abdul Kalam

ƒ˜ Ratan Tata 2003, dreamt of producing a safe, affordable Car for the common man

## Tata Nano – Strategy, Impact On The Automobile Industry

## Cost Management and Strategy used

The great wonder car by Tata’s has stunned the entire world. Critics who often said that it was not possible to make a car at a price below $3000 were taken to a back sit when Ratan Tata the chairman of Tata Motors unveiled this car in New Delhi at a price of $2500. Since then it has been in lime light and has been making news in the auto sector throughout the world.

Much of India’s low-cost production edge comes from cheap labor and a large part of the low-cost assembly in factories and plants is done through manual operations. However this situation is changing fast with companies wanting to increase productivity by automating their lines. Tata cut costs by minimizing components, particularly steel, and taking advantage of India’s low production costs. Because of its size, it requires less metal, has a smaller and lighter engine than other cars, smaller tube-less tyres and a basic interior. Tata divided the components into two types – proprietary designs and Tata Motors design. For proprietary design components, Tata went with established suppliers who then worked on the development from Indian technology centers hence saving further cost. The cost associated with employing engineers in international development centers was a costly affair which made Tata’s use local design capabilities.

For components and systems designed in-house, Tata Motors chose suppliers with strong process capabilities who could give valuable suggestions and improvements in the designs. Nearly everything has been sourced locally and the Nano boasts of greater than 95% of content sourced locally since day 1. Tata’s suppliers were an integral part of the design and development process. Tata not only worked on its own processes but also helped its vendors innovate. Instead of annual contracts, Tata went with long term volume contracts with its suppliers, driving down the costs even further.

## Thinking Outside the Patent Box:

How could Tata Motors make a car so inexpensively? It started by looking at everything from scratch, applying what some analysts have described as “ Ghandian engineering” principles-deep frugality with a willingness to challenge conventional wisdom. A lot of features that Western consumers take for granted-air conditioning, power brakes, radios, etc.-are missing from the entry-level model.

More fundamentally, the engineers worked to do more with less. The car is smaller in overall dimensions than the Maruti, but it offers about 20% more seating capacity as a result of design choices such as putting the wheels at the extreme edges of the car. The Nano is also much lighter than comparable models as a result of efforts to reduce the amount of steel in the car and the use of lightweight steel where possible. The car currently meets all Indian emission, pollution, and safety standards, though it only attains a maximum speed of about 65 mph. The fuel efficiency is attractive-50 miles to the gallon.

Hearing all this, many Western executives doubt that this new car represents real innovation. Too often, when they think of innovation, they focus on product innovation using breakthrough technologies; often, specifically, on patents. Tata Motors has filed for 34 patents associated with the design of the Nano, which contrasts with the roughly 280 patents awarded to General Motors (GM) every year. Admittedly that figure tallies all of GM’s research efforts, but if innovation is measured only in terms of patents, no wonder the Nano is not of much interest to Western executives. Measuring progress solely by patent creation misses a key dimension of innovation: Some of the most valuable innovations take existing, patented components and remix them in ways that more effectively serve the needs of large numbers of customers.

## A Modular Design Revolution

But even this broader perspective fails to capture other significant dimensions of innovation. In fact, Tata Motors itself did not draw a lot of attention to what is perhaps the most innovative aspect of the Nano: its modular design. The Nano is constructed of components that can be built and shipped separately to be assembled in a variety of locations. In effect, the Nano is being sold in kits that are distributed, assembled, and serviced by local entrepreneurs.

As Ratan Tata, chairman of the Tata group of companies, observed in an interview with The Times of London: “ A bunch of entrepreneurs could establish an assembly operation and Tata Motors would train their people, would oversee their quality assurance and they would become satellite assembly operations for us. So we would create entrepreneurs across the country that would produce the car. We would produce the mass items and ship it to them as kits. That is my idea of dispersing wealth. The service person would be like an insurance agent who would be trained, have a cell phone and scooter and would be assigned to a set of customers.”

In fact, Tata envisions going even further, providing the tools for local mechanics to assemble the car in existing auto shops or even in new garages created to cater to remote rural customers. With the exception of Manjeet Kripalani, BusinessWeek’s India bureau chief, few have focused on this breakthrough element of the Nano innovation

This is part of a broader pattern of innovation emerging in India in a variety of markets, ranging from diesel engines and agricultural products to financial services. While most of the companies pursuing this type of innovation are Indian, the U. S. engineering firm, Cummins (CMI) demonstrates that Western companies can also harness this approach and apply it effectively. In 2000 Cummins designed innovative “ gensets” (generation sets) to enter the lower end of the power generator market in India. These modular sets were explicitly designed to lower distribution costs and make it easy for distributors and customers to tailor the product for highly variable customer environments. Using this approach, Cummins captured a leading position in the Indian market and now actively exports these new products to Africa, Latin America, and the Middle East.

## “ Open Distribution” Innovation

We have called this “ open distribution” innovation because it mobilizes large numbers of third parties to reach remote rural consumers, tailor the products and services to more effectively serve their needs, and add value to the core product or service through ancillary services. Three innovations in products and processes come together to support “ open distribution:”

increased modularity (both in products and processes)

aggressive leveraging of existing third-party, often noncommercial, institutions in rural areas to more effectively reach target customers

creative use of information technology, carefully integrated with social institutions, to encourage use and deliver even greater value.

## Potential effect on Indian economy:

Tata Nano’s launch could expand the Indian car market by 65%, according to rating agency CRISIL. The low price makes the car affordable for families with incomes of Rs 1 lakh per annum, the agency said. The increase in the market is expected to push up car sales by 20% over the previous year. “ The unveiling of Tata Nano, the cheapest car in the world, triggers an important event in the car market. Based on the statement by company officials, CRISIL Research estimates the consumer price of the car at around Rs 1. 3 lakh. This brings down the cost of ownership of an entry level car in India by 30%,” the company said in a report.

## Effect on Indian Economy:

ƒ˜ Expand the Indian car market by 65%, according to rating agency CRISIL.

ƒ˜ The low price makes the car affordable for families with incomes of Rs 1 lakh per annum

ƒ˜ The increase in the market is expected to push up car sales by 20% over the previous year. “

ƒ˜ Thus, the Indian Economy is expected to remain strong and grow in 2009

## ECONOMICAL IMPACT:

ƒ˜ Boom in the banking and financial sector

ƒ˜ Competitive advantage

ƒ˜ Mass Selling and production

ƒ˜ Employment

ƒ˜ Energy security issue

## TECHNICAL IMPACT:

ƒ˜ Automobile revolution

ƒ˜ Mass production

ƒ˜ Safety will be compromised

ƒ˜ R&D for low cost editions

## Impact of Tata Nano launch

Tata Motors has announced the commercial launch of the Nano keenly awaited across India since it’s unveiling on 10 January 2008.

We bring you an impact analysis on Tata Motors from leading brokerage houses across the country.

## Competition to Bajaj Small car:

Bajaj silently unveiled its ‘ Lite’ concept car in New Delhi, two days before the much hyped launch of Tata Motors’ Rs 1 lakh car.

Bajaj Auto, the country’s second biggest two-wheeler maker, said it plans to bring out its small car in collaboration with Renault and Nissan within four years but it will not be for Rs 1 lakh.

“ I know Carlos Ghosn (President and CEO of Renault and Nissan) has set a target of 2010 for Bajaj-Renault car. While it is hard to put any time-frame, we can say in two-four years we can expect to have the product ready,” Bajaj Auto managing director Rajiv Bajaj told reporters in New Delhi.

Bajaj declined to give a specific price of the small car. Ghosn has earlier stated that Renault was looking for a $3, 000 car in India, a move triggered by Tata Motors’ Rs 1 lakh car that will be unveiled later this week.

## Hyundai introduces competitor to India’s Nano minicar:

Weeks after Tata Motors Ltd. launched its Nano model for domestic sale for just one lakh ($2, 500 US), South Korea’s Hyundai Motor Company today announced plans to produce a minicar of its own in India by 2011.

According to Cho Won-suk, executive vice president of Hyundai’s Advanced Technology Center, Hyundai’s minicar is expected to be priced somewhere between $3, 700 US and $5, 200 US. There are no plans to market the car in South Korea, the company said.

The Nano, which debuted at the 9th Auto Expo in New Delhi, seats four, has a manual transmission, and measures approximately 10 feet long, five feet across and five feet high.

Dubbed the “ People’s Car” due to the low price, the tiny car has already weathered debate over its potential emissions contribution. The Nano is powered by a conventional two stroke gasoline engine. Environmentalists worry that more cars on India’s roads will only lead to higher pollution levels.

R. K. Pachauri, chair of the U. N. Intergovernmental Panel on Climate Change noted that the roads of India can’t support increased vehicle traffic. “ With the coming in of Rs one lakh car, I am having nightmares,” he said in December.

“ Dr. Pachauri need not have nightmares,” Tata Motors’ chairman Ratan Tata said at the Nano’s launch, who says the car meets national environmental standards. “ For us it’s a milestone and I hope we can make a contribution to the country.”

Hyundai is the second-largest car manufacturer in India, behind Maruti Suzuki Ltd. Tata Motors Ltd. is in third place.

## MAHINDRA 1. 3 LAKH CAR- the real competitor to tata nano:

This car is launching in India only for Rs1, 30, 000 ( US$ 2300 / DHS 12, 000)car name is:

I believe RENAULT YENI

Will be launching in India in collaboration with Mahindra. For Rs 1, 30, 000 Which is the another budget car to compete TATA and FIAT500!! After launching this car I think we will see only all these cars instead of bikes on the roads.

## BRICS Securities:

We expect Nano to contribute sub 2% to FY10E revenue, considering the restricted capacity at the Uttarakhand satellite plant. The company’s volumes will scale up only after the Sanand plant turns operational. Meanwhile, the company can finance its working capital at nominal interest rates on booking amounts received for Nano.

Multiple headwinds such as cyclical downturn in commercial vehicle sales, interest payment on rising debt, equity dilution (25% post rights), significant decline in earnings of subsidiaries, and pension deficit of ~$700mn in JLR portend significant pricing pressure.

## SWOT ANALYSIS OF NANO PROJECT:-

## STRENGTHES:-

1. STRONG MARKET POSITION OF TATA AUTO MOBILES.

2. STRONG REVENUE GROWTH OF THE COMPANY.

3. GOOD RESEARCH AND DEVELOPMENT DEPARTMENT.

4. SUFFICIENT SUPPLY OF EMPLOYEES AT NANO PLANT.

5. STATE CM WAS THE GOOD FRIEND OF CEO RATAN TATA.

6. GOOD MARKET SHARE OF COMPANY IN INDIAN BUSINESS.

7. WELL STARTING OF NANO PROJECT.

8. WELL KNOWN IMAGE OF TATAs.

## WEAKNESSES:-

1. DEPENDENT ON VENDORS.

2. OVER DEPENDENT ON INDIAN MARKET.

3. WRONG SELECTION OF PLANT LOCATION

4. IGNORANCE OF POLTICAL STRUCTURE OF THE STATE .

5. NO PLAN FOR RELOCATION OF PLANT.

6. DELAY IN PRODUCTION.

7. INCOMPLETE RESEARCH OF SOCIAL ENVIRONMENT.

8. OVER FAITH ON STATE GOVERNMENT .

9. MIRAGE OF BENIFITES.

## OPPORTUNITIES:-

1. CAR PANETRATION IN INDIA .

2. DEVELOPED ENVIRONMENT OF GUJRAT.

3. PRESENT PLANT LOCATION IS CLOSER TO BUSINESS CENTRE-DELHI.

4. ROAD DEVELOPMENT IN INDIA.

5. TERRITORIAL EXPANSION OF THE COMPANY .

6. INCREASING DEMAND OF CAR.

## THREATS:-

1. SECURITY OF EMPLOYEES.

2. SOCIAL AND POLTICAL IM BALANCE.

3. HECTIC RECUITEMENT AND SELECTION PROCEDURE(TWO-THREE TIMES)

4. RIVAL AUTOMOBILE COMPANIES LIKE THE CASE WAS AT SINGUR.

5. DELAY IN PROJECT .

6. GLOBAL COMPETITION.

7. INDIAN GOVERNMENT REGULATIONS.

## Comparison to the Model T

Many have compared the Nano with Henry Ford’s Model T launched exactly 100 years earlier, in 1908. While the Model T initially cost $850 (equivalent to $20, 091 today), Ford refined the assembly line process and by the 1920s, the price of Ford’s Model T had fallen to $290 (equivalent to $3, 191 today), comparable to the release price of the Nano at US$2, 171 as of October 2009.

Ford Motor Co. is rich because Henry Ford used the assembly-line to produce the Model T in 1908. Ratan Tata is a late entrepreneur, making the Nano in 2008.

India is 100 years behind. But we are waking up to the possibility of catching up. I just hope our planners wake up soon.

## Nano Concept:

Nano as a concept is not new to India. Probably even before Shri C. K. Prahalad wrote about fortune at the bottom of the pyramid, enterprising people in India had created many examples of Nano, starting with the famous shampoo sachet. Now a lot of common daily-use stuff is available in Nano format. And that surely is helping both the customers and the companies.

Welcome to the Nano concept in automobiles. A good move on taking the Nano concept from Fast Moving Consumer Goods companies (FMCGs) to move customers fast through the highways! I am sure with Nano homes becoming a reality, a lot more of Nano will get launched in India.

## Mass motorization:

As the Nano was conceived and designed around introducing the automobile to a sector of the population who are currently using eco-friendly bicycles and motorcycles, environmentalists are concerned that its extraordinarily low price might lead to mass motorization in countries like India and therefore possibly aggravate pollution as well as increase the demand for oil. The ecology focused German newspaper die tageszeitung feels that such concerns are “ inappropriate” as the Tata Nano has lower emissions compared to the average Volkswagen, and that developing countries shouldn’t be denied the right to motorized mobility when industrialized countries should be looking to reduce their emissions and usage of cars. Die Welt reports that the car conforms with environmental protection, and will have the lowest emissions in India.

In crowded metropolitan cities like Mumbai, Ratan Tata has conceived a scheme to only offer the Nano to those individuals who do not have an automobile already. The Nano will also replace many overloaded and worn-out two-stroke polluting vehicles, both two and three-wheeled. According to Anumita Roychowdhury, associate director of the Centre for Science and Environment in New Delhi, “ the low-cost cars will be disastrous” in the current policy and regulatory framework.

## Used car market effects:

The Nano is alleged to have severely affected the used car market in India, as many Indians opt to wait for the Nano’s release rather than buying used cars, such as the Maruti 800 (a rebadged Suzuki Alto), which is considered as the Nano’s nearest competitor. Sales of new Maruti 800s have dropped by 20%, and used ones by 30% following the unveiling of the Nano. As one automotive journalist summarises; “ People are asking themselves-and us-why they should pay, say, 250, 000 Rupees for a Maruti Alto, when they can wait and get a brand new Nano for less in a few months’ time, a car that is actually bigger”.

## Post Sales Issues:

In March 2010 a Tata Nano caught fire when driven from dealership to the home of its owner Satish Sawant . Tata Motors responded regarding the fire.

“ The incid