

# TATA NANO'S -----SECOND COMING

\*Zubair Ahmad

## Abstract

*Tata Nano the prestigious project for the Tata Group and specially for Mr Ratan Naval Tata as it is related to his self actualization need of his life. He took all possible steps to complete the project according to his dream and within the price limit which he promises to the people of the country. In the meanwhile he faces many problems like land allotment in Singrur (West Bengal) where the local farmers agitated against him and for the safety concern of their employee he shifted his project to Gujrat even after a huge expenditure on the project. When the Nano first come in the market the sales are not satisfactorily but after a year they changes a lot to it features this enhances the sale rapidly in automobile market. According to the latest figures sale increases to about 87% in the last months.*

Two years back, when Ratan Naval Tata stepped out of what looked like a giant jellybean on four wheels, he changed the way the world looked at automobiles. At the 9th Auto Expo in the capital, rival automakers watched with veiled sarcasm as the chairman of the Tata Group unwrapped his little, big dream, conceived when he saw a family of four perched perilously on a two-wheeler. But Tata found few takers for his virtuous theory. Some of his detractors were quick to point out that the Rs1-lakh Nano would be unsafe. Others smirked and whispered that it would fall apart on potholed Indian blacktops.

Months have gone by since. The potholes haven't disappeared either. But the people's car is slowly snowballing into a sociological phenomenon. In a faraway village in Gujarat, Bajarang, a farmer, wakes up every morning to drop his little girl to school. Instead of kick-starting his... motorcycle, he picks up a soft cloth and wipes the dust off from his red Nano's windscreen. He doesn't understand the innovation behind the engineering or the 34 patents that Tata Motors has filed for the Nano, but the wide grin on his eight-year-old daughter's face is testimony enough for him.

From the time of its launch, the Nano has cheekily managed to negotiate every hairpin bend, including the scariest one called Singur. The Tatas had put together a factory for the Nano in Singur, West Bengal, when a belligerent Mamata Banerjee, the state's opposition leader, jumped into the picture and staged a standoff with them over the issue of displaced farmers. Eventually, the project was relocated to Gujarat. And, the feisty Nano lived to tell another tale, one full of possibilities.

The Tata Nano is quite a feat of engineering. Almost no one would have believed that a car could be built that would sell for just over Rs. 1 Lakh in 2009. Until the car was actually shown to the public in the Auto Expo of 2008, there were all sorts of rumours swirling about the Nano because of its much talked about price tag.

The Tata Nano was probably one of the most publicized launches in the history of automobiles. The Singur issue and the shift to Sanand in Gujrat and the heroic efforts to bring out the Nano on time was written about extensively in every newspaper and magazine.

The emergence of the supermarket and hypermarket chains in US and other developed countries is an example of.

how mass motorisation can arguably change the urban landscape. Before 1960, American stores were medium size. But after almost every American started owning a car, the stores got bigger and supermarkets and hypermarkets started cropping up on the outskirts of large urban areas during the Seventies and Eighties. They are usually located at the intersections of major highways and rely heavily on shoppers traveling in their own vehicles.

It's too early to jump the gun here, but Tata Nano's upcoming plant in Sanand in Ahmedabad, with five lakh units per annum capacity, is a sign of things to come. Over the past six months, around 18,000 cars have been delivered across the country despite production constraints. And, not surprisingly, other than a few technical teething problems here and there, like a few cars catching fire, not even a single car has fallen apart on the road.

On hindsight, the Nano is not just a car. It is status within reach for nearly nine million new two-wheeler buyers across the country every year. It has brought down the price of an entry-level car by nearly 30%. The rear-engine, 624-cc Nano not only has some design semblance to the popular Volkswagen Beetle, another people's car conceived by Adolf Hitler, but the central idea of mass motorisation also remains the same.

About 75% of the bookings for the Nano came from non-metros. Auto analyst Abdul Majeed of PricewaterhouseCoopers feels that even if 4-5% (4.5 lakh approximately) of two-wheeler owners are converted into Nano buyers, Tata Motors will turn the tables (Maruti Suzuki sold around 8.4 lakh cars in 2009). Says Majeed, "As the volumes are low at the moment, it is a tad difficult to arrive at any conclusive figure on production versus sales trend. We will have to wait till the Sanand plant. functions at full capacity."

By 2030, India is touted to become the third-largest market for passenger cars after China and the US. More than 70% of the cars sold in the country today fall in the small car category. The introduction of Nano could very well expand the domestic car market by another 65%, feel researchers at rating agency CRISIL.

But, beyond the math, Ratan Tata's dream is not only revolutionising the way people commute in India, it is also changing the way people think across the world. Most major

\*Zubair Ahmad Lecturer M.B.A. Deptt. Azad Institute of Engg. & Technology, Lucknow

car manufacturers, such as Toyota, Honda, VW, General Motors, Ford and Nissan, have woken up to the fact that the future of automobiles lies in compact and efficient cars. All of them have on the anvil plans of launching small, affordable models in the small car segment. Says Michael Boneham, president and MD at Ford India, "The compact car category is going to fuel growth in the future and there is no reason why it can't have a double-digit growth rate."

In the process, the population at the bottom of the pyramid has a fighting chance to not only own a car, but to travel comfortably and safely. Car penetration in the country is still very low at 10 per 1,000 people, compared to 500-600 per 1,000 people in developed countries. This leaves a huge gap, which the Nano and its kin can fill in the coming years.

Back in the capital, Arush Vohra, who owns a car modification studio and soups up cars that can churn out 500 bhp at the drop of a hat, is an excited man. He owns a couple of fast cars, but can't stop boasting about his 33-hp Nano on Facebook and Twitter. He drives it to work and his wife, who is a part-time rally driver, uses it to go shopping.

In short, the Nano is not reinventing the wheel. It's just helping people to use it in a better way.

#### Specifications:

ENGINE & TRANSMISSION	
Engine Type	624 cc, 2 cylinder, MPFI
Maximum Engine Output	35 PS @ 5250 rpm
Maximum Torque	48 NM @ 3000 +/-500 rpm
Maximum Speed	105 kmph
Gradeability	30%
Transmission	Synchromesh on all forward gears, ? sliding mesh on reverse gear with overdrive on 4th gear
No. of Gears	4 Forward + 1 Reverse

#### Design

The car's exterior was designed at Italy's Institute of Development in Automotive Engineering.

#### Cost cutting features

The Nano's design implements many cost-reducing innovations.

- The Nano's trunk is only accessible from inside the car, as the rear hatch does not open.
- One windscreen wiper instead of the usual pair
- No power steering, unnecessary due to its light weight
- Three lug nuts on the wheels instead of the usual four
- Only one wing mirror
- No radio or CD player
- No airbags in base model
- 623cc engine has only 2 cylinders
- No air conditioning in base model

#### Price

- The **Tata Nano Std** priced at 142,000 (US\$3,166.6) with a choice of three exterior colors, single-color seats, and a fold-down rear seat
- The **Tata Nano CX** at 171,000 (US\$3,813.3) with five color options, air-conditioning, two-tone seats, a parcel shelf,

assisted brakes and fold-down rear seat with nap rest

- The **Tata Nano LX** at 195,000 (US\$4,348.5) with all of the features of the CX plus fabric seats, central locking, front power windows, body-colored bumpers, fog lamps, a trip meter, a cup holder, mobile phone charging capabilities and a rear spoiler

#### Europa

This export version of the Nano was first shown at the 2009 Geneva Motor Show<sup>[32]</sup> but has yet to go on sale. Heavily upgraded to meet EU safety and emission standards, the car will have a number of improvements over the standard Nano, including an extended wheelbase, a new 3-cylinder engine, power steering, an anti-lock braking system (ABS) and an improved interior and exterior.<sup>[32]</sup> The Nano Europa will be more expensive, heavier, and less fuel efficient than the standard Nano with prices said to be around US\$6000.<sup>[33]</sup> At the 2011 Geneva Motor Show Tata unveiled the Tata Pixel, a rear engined, four passenger city car based on the Nano Europa platform.

#### Export

Export to other developing countries may begin in late 2011, and export versions will probably differ little from those sold on the Indian market.

#### Alternative-energy engines

While the Nano is driven by a gasoline-powered engine, several more-radical powerplants have been proposed but not put into production.

#### Compressed-air engine

Tata Motors signed an agreement in 2007 with a French firm, Motor Development International, to produce a compressed air car Nano. While the vehicle was supposed to be able to travel approximately 200 kilometres (120 mi) on US\$3 of electricity to compress the air, Tata's Vice President of Engineering Systems confirmed in late 2009 that vehicle range continues to be a problem.

#### Diesel

A website has speculated that the Nano might be made available with a diesel engine. Tata motors have not confirmed this but have stated, "As of now there is no Diesel variant of the Nano. The Nano is only available in a Petrol version."

#### Electric vehicle

Tata has discussed the possibility of producing an electric version, and while it showcased an electric vehicle Nano at the 2010 Geneva Motor Show,<sup>[45]</sup> no such car is currently on the market.

#### Safety concern

A small number of fire incidents involving the Nano were reported. This led Tata to add safety devices to the vehicle although no recall was initiated, and according to Tata the car is safe. Its safety is relative however, as the Nano has no airbags, passenger-side wing mirror, or crumple zone.

#### Safer travel

The Nano is safer than a motor cyclee specially

during monsoon, when heavy rains can make traveling difficult for two-wheelers due to wet roads.

### **Indian used car market**

The Nano is thought to have affected the used car market in India, as some Indians may opt to buy a Nano rather than a used vehicle. The new-car market is also being affected. Sales of new Maruti 800s, the second-cheapest car in India, dropped by 20% and used models by 30% immediately prior to the Nano's introduction.

### **Awards**

- 2010 Business Standard Motoring Indian car of the year
- 2010 Bloomberg UTV-Autocar car of the year
- 2010 Edison Awards, first place in the transportation category
- 2010 Good Design Awards, in the category of transportation

### **Tata Nano - Nano second to none!**

It may have started as one man's dream and grew up to be a hope for a whole nation. But today, the Tata Nano is a car capable of defining its own category. BSM presents a definitive road test of what is, in all. After exchanging pleasantries with the genial Tata Motors staff, I walked towards the sunshine yellow Nano parked in the middle of the skid-pad at the Tata Motors test track. After writing about it, spreading rumours about it (like almost everyone else), after seeing it and thinking a lot about it, it was time to drive the Nano. It was not a long walk to the car, but with every step there was an overwhelming sense of occasion building within me. I am sure the sensation would be the same in the minds of researchers who were approaching an alien spaceship which had landed on Earth for the first time.

I got into the car, summoned the key and started it. The engine sprang to life with the combined ignition noises of a four-stroke scooter and a car and settled down to a slightly busy idle. Pressing the feeble-looking clutch lever down, I selected first gear. Almost like a racing driver who is about to drive an F1 car for the first time, I didn't want to stall the car. To ensure that, I ran the clutch a bit as my right leg sank into the accelerator pedal. The car accelerated spiritedly to 35 kph and it was time to shift to second, which took the speedo needle above the 60 kph mark. Third saw the car touch 90 kph and soon we attained v-max of the Nano 105 kph in fourth gear. There, in a single spirited acceleration run, the Nano had changed everything that I was expecting from the small car.

It was behaving more like a mainstream car and I was expecting a lot more shudder at the launch, more vibrations on the move and lots more noise than what was present. Soon it was time to jab the brake, reduce some speed and enter the smaller skid pad at the other end of the track. Downshifting a gear, I threw the car into the circular bit and went back on the power. Sure, there was an element of body roll, but the Nano levelled out like any mature car and headed for the next straight. The smooth acceleration, well planted stance and the gutsy nature of the two-cylinder engine in that first drive will remain etched in my mind forever. In short, this is not a baby

car or an alternate to the car as many, including me, thought it would be. It is a well-engineered product that redefines what a small car platform powered by an internal combustion engine can do. And to appreciate that, you have to leave what you have learned about cars at home and get behind the wheel.

### **Interior and comfort**

Renault proved with the Espace a long time back that mono-volume is the way to go if you want maximum space utilisation. The simple interior concentrates on liberating space and functionality. The thin front seats add a bit of sportiness to the proceedings, in tune with the exterior. There is ample leg and head room (even if you are wearing a turban we tested it out) for front as well as rear passengers. This is a proper four-seater the front and rear doors open wide allowing you easy ingress and egress. That said, there is room for a child, or a not-so-well built fifth passenger in the back bench. The airconditioning in the LX version wouldn't have ensured a penguin migration, but it worked reasonably well. As far as instrumentation goes, you get a speedo and a digital fuel gauge cum odometer. And trust me, those are more than enough to drive this car. Ergonomically speaking, the power window switches on the central tunnel are not very user-friendly, but then it saves precious rupees by reducing excessive wiring to the doors (remember the Logan?). The dashboard can be used to make a left-hand drive version without expensive re-tooling. Minimal trimming notwithstanding, the LX version comes with fabric upholstery and twin-tone plastic.

The CX version gets two-tone PVC seats while the base model gets all PVC seats like in the Tata Ace. Another difference between the base Nano and the luxury models is the steering wheel the base model gets a two-spoke unit while the top-end versions get a sportier three-spoke unit. In short, this is a very matter of fact interior, but one that surprises you with its spaciousness. We have to talk about luggage space at this point. The only space to put your suitcase (one large one or two small ones) is behind the passenger seat backrest. And access to this slot is not via a regular hatch door actually there is no hatch door instead you load the car after pulling the rear seat backrest down (you need two people or one very long arm to do that easily). But the fact is that there is space for some luggage. And yes, do not keep heat sensitive stuff there it really gets hot once the engine starts spinning. So Diwali shopping is okay, as long as you don't stuff the firecrackers in there!

### **Verdict**

Here is the best way to sum up the Nano: we use only 50-60 per cent of a car's potential inside the city, right? Well, the Nano is just about 70 per cent the rest you will hardly miss. The Nano surprised me with its ability to start up, run, stop, go around corners and generally behave like a normal car which, incidentally, it is. The best part is it is not trying to be something else. Simplicity and honesty make good cars, and here, it is helping create a bit of history. It takes a lot of vision, trust from a lot of people to back that vision and plentiful frugal thinking to come up with an automotive solution to a genuine issue in this case, cheap and safe personal



transportation for a hell of a lot of people. I always believed that India is now going through a period similar to what Europe did after the Second World War. That way, the Nano is a true inheritor to the Beetle and the 2CV. And having driven both, let me assure you that this one is cleverer! In case you are one of the many like me who wondered about our roads, well, there is still time to change. Because roads will follow they've got to.

Unfortunately in the two years since launch, the Nano has been a bit of damp sqib in the market. It has crossed 10,000 cars a month volume just once in the 24 months it has been on sale. In most months, it has sold between 4000 and 6000 units. For a car that was expected to sell 1 million units a year (or about 83000 units every month), this is a great comedown. The top team at the company acknowledges that many things have gone wrong, but they still hold on to the dream of 1 million cars a year in sales. They have carefully discussed all the problems and are now trying to rectify them.

Six months since that famous meeting, Forster and his colleagues are engaged in a gigantic rescue effort. They are tinkering with the petrol engine to improve fuel efficiency (from the already phenomenal 28 km per litre), tweaking its looks, adding new features, developing a diesel engine---but above all, they are engaged in reworking the distribution model in a frantic bid to improve demand for the car.

Even before the rural strategy for exclusive dealerships was worked out, Tata Motors had put in place some interim measures. It asked its 254 passengers car dealers (who have 619 outlets), to open SNAPs. About 210 of these have already been set up; the company hopes to close the year with 350 SNAPs. The difference being that while the exclusive dealerships will be below cost (Rs. 1030 lakh) sales, service and repair facilities, SNAPs are just sales (and finance) outlets (cars are serviced only through weekly visits by service vans).

Some challenges which Nano faces are ----Almost Rs. 3000 crore has been invested into the project, but volumes are still subpar. Petrol Nano volumes are yet to hit the break even point; suppliers are worried. Diesel cars can bring volume, but company wants to be doubly sure about the car. Turnaround time with the rural consumer is three or four times higher than the urban. Selling at 10000 per month requires at least 2000 sales people; ramp up takes time. In the end after analysis, analysts say that mass market is no longer the bottom of the pyramid. Company did not advertise till it was too late. The company brushed aside initial fire accidents. It is no longer Rs. 1 lakh: base model is Rs. 1.63 lakh. Introducing the petrol version first was a mistake.

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