

INNOVATION

Innovation in Tata Motors is not a recent phenomenon, but is a part of its legacy. The Company's culture of perpetual search for excellence is highly attributed to the Tatas ethos and incessant efforts of its employees in the past several decades to serve the customers by bringing continuous innovation in its products and processes.

I would first touch upon three major areas to illustrate how Tata Motors has effected innovation in the past several years.

1. Products
2. Processes
3. People

PRODUCTS:

Tata Motors created several breakthrough products in the past which changed the market dynamics and helped in providing a new customer experience.

1. 407 platform in 1980s.

Japanese LCV players had made inroads into the Indian automobile market in the 1980s. Tata Motors came out with its innovative 407 platform which was designed to suit the Indian conditions. It quickly became the bestseller in LCVs and the platform still continues control 2/3rd of the market even in the third decade of its existence.

2. Indica in the late 90s.—*More Car per car*

This was the first indigenously designed passenger car in India and it was innovative in the sense that it provided more value for money in terms of internal space (comparable to the Ambassador which was the benchmark in the country for internal space), contemporary features (comparable to Maruti Zen) and all that at a very competitive price.

3. ACE – *Last mile distribution vehicle...*

Ace was India's first mini-truck launched in 2005. While heavy trucks ply on the highways, research showed the need for a small sub one-tonne truck for intra-city and truck terminal-to-nearby locations connectivity. The Ace helped in meeting that last mile distribution need with emergence of Hub and spoke transportation model in India.

The vehicle offered 4 wheeler functionality at 3 Wheelers price. The unconventional design features used in the vehicle were:

- Innovative 2 cylinder Indica engine
- Semi-monocoque body to withstand abuse
- Rigid front axle and rear wheel drive for low cost
- Flat face vs semi-forward face to enhance the loading space.

4. NANO – *the People's car/ Rupees 1 lakh car*

The target price itself became the source of innovation, as you all must have read that the big names in the industry just rubbished it as false claims and

commented that it was impossible to make a “CAR” at that price. However, you all know that the promise was kept.

This was made possible through series of innovative ideas which led to acquisition of 37 patents by Tata Motors.

- Engine was packaged on the rear side.
- 2 cylinder engine (conventionally there are 3-4 cylinder engines)
- Identical handles and mechanisms for left and right side doors
- Instrument cluster in the middle of the dashboard
- Unconventional seats
- Interior space was maximized by pushing wheels to the corners and power train below the rear seat.
- and many more

Product created was very contemporary and

- It has sufficient **Space** inside to accommodate 4 persons comfortably.
- Highly fuel efficient
- Exceeds the current Safety requirements
- Complies with the current emission requirements.

5. **WORLD TRUCK - a new era in the Indian automobile industry**

The new generation range of trucks which would match with the best in the world in performance at a lower life-cycle cost is being unveiled in just a few hours from now. It will create a new benchmark in India in terms of power, speed, carrying capacity, operating economy and trims and a new experience for the drivers in terms of drivability and comfort.

PROCESS:

Sustainability of innovation in products needed to be complemented with innovative changes in the organizational processes too. Some examples are:

- **Adoption of the Tata Business Excellence Model (TBEM):** It is based on Malcolm Baldrige Award for business excellence and Balance Score Card. This has created a culture of exploring various innovative ways to achieve excellence in all the organizational processes. Tata Motors in the past has received the “Hall of Fame” award for BSC, JRQV award, CII-EXIM award and many other such awards which prove the effective deployment of the model.
- **Use of IT systems has been a benchmark and highly leveraged in the organization throughout the VALUE CHAIN.**
 - **Supply Side – Free-Markets/ ARIBA** for e-Sourcing, Supplier Relationship Management (**SRM**).
 - **Design – PLM**, Advanced Computer Aided design (**CAD**), etc.
 - **Enterprise Resource Planning – SAP** for enhancing transaction effectiveness.
 - **Demand side -(CRM)** with **SIEBEL** , a comprehensive **Customer Relationship Management program**, enabling it to gain market insights by exploiting the huge online customer transaction database. It is the largest deployment of a customer management tool across the automotive world till date.

- **Product Development Process.**
 - Institutionalized **Stage Gate process** in the organization is a benchmark in itself and ensures development of right product for the market and also an effective and efficient program management.
 - Transition from inhouse product development to a **collaborative product development**, utilizing the capabilities of suppliers, design houses, subsidiaries and associate companies specializing in different verticals.
- **Internalization philosophy** : Tata Motors made some major global acquisitions like TDCV, JLR , Hispano, etc. Unlike many other Japanese / US players, we followed an innovative approach to be seen as a local company in the country of operation, i.e, as a South Korean player in South Korea and as a Spanish Player in Spain. This has helped us to appreciate the need and importance of all the stakeholders and we achieve this in four stages. This involves – “Initiating”, by understanding the language and basic facts of the country, “Familiarization” with their culture, “Harmonization” and finally “Synergizing” by sharing the best practices and work ethics.

PEOPLE:

The changing business environment and increasing complexity of business posed a huge challenge in achievement of business plans. Tata Group, of which Tata Motors is a part of, is well known for identifying and nurturing leaders. Tata Motors in the past has adopted several innovative means to leverage its human resource capabilities for achieving extremely challenging goals.

- **Identifying leaders through assessment centres** – This process has been effectively utilized by Tata Motors to identify young managers with very high potential. This process was started some 20 years back and has progressively created a pool of very strong and effective leaders who have proven their capabilities in some very challenging assignments given to them. This process has now been replicated by many other organizations too.
- **Putting them into challenging assignments and giving them International exposure** – Key projects like ACE and NANO are examples of some challenging projects which constituted of young leaders and engineers.
- **Breaking the functional silos by shifting from a hierarchical organization to a more CFT approach.**

All these experiences have helped us to redefine the way we have looked at innovation. And while innovation is normally understood as introduction of new and radical ideas in the area of products and services, our experience says there are several other areas that also require innovation in tandem, so as to effect an innovation in a company. Three of them I have already mentioned, that is, product, process and people.

Four other areas of innovation are:

- **Source of inspiration/ Purpose** from which the concept emanated, which stresses upon the fact that agility and understanding the unstated/ unfulfilled need of customers is the most important source of innovation.

Tata Nano: In this case the idea struck in the mind of our Chairman when he saw a family of four (a man, his wife and two kids) riding on a scooter on a rainy day. He felt that there was an unfulfilled need of safe, affordable and an all weather alternative.

- **PRICE** : The price of Nano got fixed at Rs 1 lakh. The achievement of price target was definite to create a major disruption in the car market as it fell mid-way between the price of a scooter and the cheapest car available which was priced at Rs 2 lakh. Product design was choked for options because of the **price target**. Hence the setting the price as target triggered a series of innovation which involved:
 - Target Cost approach – which involved breaking down the cost targets to sub-system and then to component level.
 - Suppliers were challenged with the stringent cost target given to them, but they accepted the same and the result is in front of you.

- **PROMOTION:**
Innovation lies in reaching the right customers always and communicating in a simple and effective manner. Tata Motors in case of Nano developed a portal, which got as high 30 million hits even before the launch of the car. After the launch there were another 30 million hits in less than a month. This helped the customers in becoming more aware of the product features. We have received around 2 lakh applications, which is a good response by all standards.

- **PLACE/ REACH:**
Conscious of the fact that demand for such cars would be substantial from the remotest corner of the country, the sale of form for booking were facilitated through several banks. New insurance schemes were co-designed with the insurance companies, and now we are in the process of enhancing the sales and service network for better reach and service to the customers.

To summarize our experience, path breaking ideas, conceived and implemented in one or more of the 7 Ps, leads to INNOVATION.

1. Purpose
2. Product
3. Price
4. Place
5. Promotion
6. People
7. Process

However, our experience show that creating a congenial climate within the organization is must to foster innovation. This is only possible if innovation is led and supported well from the top. It requires assigning challenging tasks to the team, but with sufficient empowerment and encouragement given to them. This should be backed by involvement and support of the top leaders which helps in keeping the team committed and motivated to the task.