Inside India: Understanding India’s Current and Future Automotive Industry

“Focus on the Future”
UM Automotive Research Conferences

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Presentations available at: www.umtri.umich.edu/ aad

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- Affiliate Program
  - Supporting Members
  - Research Partners

- Funding
  - Globalization
  - Powertrains
  - IT

- Conferences
  - 5 Annual Conferences
**Affiliates Members and Research Partners**

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UMTRI-AA Affiliate Program

For 2010, we have re-designed our Affiliate program by focusing the funding received from our Affiliates on 3 main annual research projects that look at the current and future direction of the global automotive industry:

1. **Automotive powertrains and emissions focused on technology and regulatory/policy forecasting through our Powertrain Strategies for the 21st Century study**

2. **The role of information technology in the automotive industry through our Automotive CIO study**

3. **The globalization of the automotive industry based on a focused, country level analysis of a developing or developed market.**
Upcoming UMTRI-AA Conferences

• **April 20, 2011 (Wednesday):** Inside India: Understanding India’s Current and Future Automotive Industry.

• **July 13, 2011 (Wednesday):** Powertrain Strategies for the 21st Century. This 3rd annual conference will focus on current powertrain topics and their effects on the future of the industry.

• **September 14, 2011 (Wednesday):** The Business of IT: Transforming the Organization and the Vehicle. Our 4th annual conference on how IT innovation is changing the auto industry.

• **November 16, 2011 (Wednesday):** Inside China: Understanding the Current and Future Chinese Automotive Industry. Our 5th annual conference that brings the insight of people who truly know the Chinese auto industry.
Panelists

- **Rahul Bharti**, Head of Corporate Planning, Maruti-Suzuki Corporation
- **Charles Chesbrough**, Senior Economist, IHS Automotive
- **Yong Yang**, Senior Economist, Ford Motor Company
- **Jayendra Parikh**, Executive Director, Ashok Leyland
- **Kevin Fisher**, President, Vehicle Technologies Group, Tata Technologies
- **Mohan Bachhav**, Automotive Client Solutions Executive, IBM Corporation
Morning Schedule

- 9am
  - Bruce Belzowski
  - Rahul Bharti
  - Charles Chesbrough
- 10:30am Break
- 10:45am
  - Yong Yang
- 11:20am Q&A
- Noon-1:30pm Lunch
Afternoon Schedule

• 1:30pm
  – Jayendra Parikh
  – Kevin Fisher

• 2:35pm    Break

• 2:45pm
  – Mohan Bachhav

• 3:25pm    Q&A

• 4:00pm    Adjourn
Conference Questions

• How do manufacturers view the Indian market and its potential? What have been the major changes in the industry?

• What are the sales and production forecasts for India? What are the main issues that need to be overcome to make the Indian market like the Chinese market?
Conference Questions

• What do challenges do medium and heavy duty trucks face in India? Will they be able to leverage India’s IT advantage?

• How will the Indian outsourcing engineering model change? What role will universities play in this change?
Conference Questions

• How are automotive companies using IT in ways different from other countries?

• How will the new IT model transfer to other countries?
India’s Automotive Industry from the inside.

- Joint study between
  - Automotive Analysis Division, University of Michigan Transportation Research Institute, and
  - IBM Institute for Business Value

- In-depth face-to-face interviews with automotive executives and experts
  - Foreign joint ventures – manufacturers and suppliers
  - Domestic manufacturers and suppliers
  - Government officials – national and local
  - Academic experts
Domestic market success will depend on several factors, according to our interviewees:

- Interviewees expect a doubling and tripling of 4 wheeler sales by 2010 and 2015 respectively, making India one of the top 10 countries in terms of vehicle sales.
- Optimism is tempered by the low number of 4 wheelers sold compared to the rest of the world, and especially its neighbor China. There is a large untapped market of people who now own 2-wheelers, or who own no vehicle but could afford one.
The Retail Experience

- India’s transition from a 2 wheeler society to a 4 wheeler society is a unique opportunity to “get it right” with first time vehicle buyers, especially in building a brand image.
- India can leapfrog other countries by marketing to new, young vehicle buyers attuned to the Internet and virtual worlds. The next level of Customer Relationship Management.
- India has a tremendous advantage for industry growth with its mature financing systems.
- India needs to develop dealer groups that can provide a consistent brand image and buying experience for each manufacturer.
- India needs to develop standalone service businesses and aftermarket parts service that can fit with the Indian “fix it” mentality.
Export challenges are complex

- Domestic manufacturers need to:
  - Understand consumers in other regional markets and develop a range of models, brand presence, and dealership networks
  - Develop products that can succeed in developed as well as developing economies

- Domestic manufacturers and suppliers need to:
  - Improve global supply chain logistics
  - Increase manufacturing scale to global levels
  - Improve technology development
    - Such as technology that differentiates companies, or engines that conform to global norms
  - Build resources to survive a large (even global) recall campaign
  - Upgrade India’s port facilities to handle large scale exports
Our interviews identified 4 areas of concern within production including skills, R&D capability, the supply base, and the JV experience.

India’s Production Capabilities

India’s production capability has recently grown fast:
- Total vehicle production has doubled since 2001
- Auto components production value has doubled since 2000

But the production capability still needs to grow further:
- India’s production of four-wheelers is still small compared to other countries – 10 percent of the number of four-wheel vehicles produced in North America or Europe, and 30 percent of those produced in China
- India is currently a much more significant player in two-wheelers – manufacturing nearly 20% of world production, and trailing only China which produces nearly 50%.
Labor Skills

• Indian auto companies need to bring in leaders already experienced in the automotive industry that can take their companies from domestic to global
• The Indian automotive industry must create the passion for working in the automotive industry that equals that in the financial and IT sectors
  – Automotive companies in India need to make their companies appealing destinations of choice for talented engineers, craftsmen, and technicians
• Creating work environments that look after and nurture talent will differentiate companies in the eyes of workers
  – While balancing the cost of nurturing vs. turnover rate
Interviewees rated infrastructure as the most important external challenge facing the automotive industry.

**Ranking of Key Issues order of importance**

1. Infrastructure
2. Oil Security
3. Air Quality

- Infrastructure is an area where the interviewed executives feel India can solve some of its own issues.
- Oil security, on the other hand, is more dependent on the global markets.
- Air quality is viewed as something already being addressed with India being only a few years behind the European Union in adhering to Euro emissions norms.
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