

One Billion New Automobiles

For further information:

Bill Jackson, Chicago: bill.jackson@booz.com

Vikas Sehgal, Chicago: vikas.sehgal@booz.com

Booz & Company

02/15/2007

One Billion New Automobiles

Three trends that will change the future of the automobile industry.

by Bill Jackson and Vikas Sehgal

Imagine how the world would be transformed if the number of people who owned cars doubled in a decade. In fact, as the rate of personal vehicle ownership soars in Asia, a new kind of global automotive manufacturing industry is emerging to capitalize on this new customer base. Automakers (and the financial markets and supply chains that support them) already know their world is going to change; the media are beginning to pay attention to fledgling motor vehicle companies such as Chery (in China) and Mahindra and Mahindra (M&M, in India). But few people realize the full implications. If the auto markets of developing nations evolve on a par with established markets by, say, 2020, that development could upend today's prevailing notions of what a car costs, how it is produced, and how it is used.

The trends that will shape this future — from automobile production to environmental impact to changes in working patterns — are proceeding at different speeds. But they are all interrelated, and their impact will be cumulative. These trends include:

- **Social Mobility.** In emerging markets, especially if the building of roads and fuel infrastructure continues, individual mobility and job opportunities will increase. This in turn will accelerate both the democratization and the industrialization of China and India.

We can assume that no emerging nation will

become an automotive society on the U.S. model, with its suburban sprawl, subsidized fuel, and demand for large cars. Countries like India and China will likely impose strict regulations on vehicle size, fuel economy, emissions, and driving rights — and they will cut back or eliminate their current fuel subsidies. Excise taxes on larger engines and vehicles are also likely. The Shanghai government has already implemented a Singapore-style license-fee system that effectively rations drive time at peak periods in high-congestion areas.

As a result, people in relatively wealthy urban centers — such as Beijing, Guangzhou, Hyderabad, and Bangalore — will continue to rely on public transportation, since daily driving is impractical in dense cities without major highways. Rather than providing mobility during the week, cars in such locales will be used by residents to leave town on weekends, and they will also serve as status symbols.

For rural areas, however, motorization will open new horizons, and not just for car owners. For the first time, residents of remote villages will be able to reach urban centers in a half-day's travel. Economic activity, be it agriculture, industrial production, or retail sales or distribution, will no longer be logistically isolated in rural regions. China's automotive and steel sectors were once geographically segmented, with small clusters of

Bill Jackson

(jackson_bill@bah.com) is a senior vice president with Booz Allen Hamilton in Chicago. He works on major organizational change programs, including restructurings, post-merger integrations, and growth, for a variety of industrial clients, especially in the global automotive industry.

Vikas Sehgal

(sehgal_vikas@bah.com), a principal with Booz Allen Hamilton in Chicago, works with clients on strategies for innovation and emerging markets.

suppliers and manufacturers duplicated in each major region. Now, the new highway system allows major players to consolidate in centralized locations, increasing their scale advantages.

- **Environmental Impact.** It's still not clear whether emerging-country policymakers will take energy availability and environmental concerns into account as they promote growth. Why should they, since environmental concerns are a secondary issue in most developing countries? To date, many leaders in these nations have argued that they cannot afford the luxury of environmental accountability (particularly for greenhouse gas emissions and their impact on global climate change). This is a source of worry for many experts. China is already second only to the United States as a consumer of energy and producer of greenhouse gases. If driving habits in China, India, and other emerging nations duplicated those in the U.S., the environmental impact could be catastrophic.

But history suggests that rising economic growth leads to greater environmental awareness sooner or later, and this change may already be happening in the East. For example, China has just raised its fuel economy standards, and India's metropolitan governments are beginning to tighten environmental regulations. "The challenge for developing countries," says Dilip Chenoy, director general of the Society of Indian Automobile Manufacturers, "is whether to converge with European standards in the next few years, or just to maintain a one- or two-year gap behind Europe." The latter option, he said, "may allow us to develop indigenous technologies at lower cost, making the cars more affordable but still meeting emission norms."

- **An Expanding Lower-End Auto Market.** India's

best-selling small car is currently the Maruti Alto, which sells for less than 210,000 rupees (about US\$4,500), and manufacturers there are aggressively developing automobiles that will sell for about half that amount. The cars that become popular in emerging markets will deliver necessities rather than creature comforts: A typical car manufactured in India or China may have a plastic shell, a rudimentary motor, good brakes, and a stout suspension to handle unpaved roads, but no airbags. In adapting vehicles for the narrow streets of emerging nations, manufacturers could change the world's conception of what a car looks like, down to whether it must even have four wheels. Even today, in countries such as Thailand, it's possible to see a family of seven balanced on the back of a motorbike; to such families, a three-wheeled, three-seated vehicle would seem positively luxurious.

- **New Pressures on the Auto Industry.** As manufacturers develop in emerging markets to serve the millions of new vehicle owners there, they could follow the path that Japanese and Korean carmakers have paved to bring their products to established markets. The basic vehicle model of the emerging economies could be adapted for other nations, offering fuel efficiency and unprecedented low prices, with a few extra tweaks like the additional safety features that established markets require.

China and India are already exporting cars to the Middle East, Africa, and Eastern Europe; these markets can act as testing grounds for penetration into North America and Western Europe. Eventually, China and India could become the world's leading producers of small cars and of vehicles that use alternative fuels. India's motor vehicle industry may, in particular, surprise the rest of the world. It benefits from access to a

large population of skilled engineers, a 60-year history, and the world's fastest-growing major automotive market. Indian manufacturers such as Bajaj and TVS currently produce more two-wheeled vehicles (such as motorcycles and motor scooters) than those of any other nation except Japan. Indian automakers, including M&M, Maruti, Hindustan Motors, and Tata, currently make about 1 million automobiles per year, of which about 80 percent are small, fuel-efficient cars well suited to relatively low-income consumers living in relatively dense urban areas anywhere in the world.

Recent history suggests that many Western automakers will fail to respond effectively. U.S. manufacturers have focused on large cars and trucks, and European car companies have focused on performance. Both groups have thus missed opportunities to develop economical cars with high fuel efficiency and the selling point of reducing dependence on foreign oil.

If all the current automotive trends accelerate, many companies will see their value chains overhauled, not just in the auto industry but in every sector. Nations around the world will suffer the consequences of increased pollution and greater global competition for fuel. And the automobile as a product will be transformed. Those manufacturers and suppliers that start planning now for a new wave of upstart competition will be the most likely to thrive in the next automotive environment. +

strategy+business magazine
is published by Booz & Company Inc.
To subscribe, visit www.strategy-business.com
or call 1-877-829-9108.

Originally published as “One Billion New Automobiles” by
Bill Jackson and Vikas Sehgal.