Exercise 2

The internationalization of manufacturing has become predominant in the global marketplace. In fact, *Industry Week* magazine ranks the world's largest manufacturing companies by sales revenue. Identify the largest Finnish and South African manufacturing companies as provided in the most recent ranking by paying special attention to the industries in which these companies operate.

CLOSING CASE

The Rise of the Indian Automobile Industry

India is well on its way to becoming a small car manufacturing hub for some of the world's largest automobile companies. Between 2003 and 2008 automobile exports from India jumped fivefold to about 250,000 cars a year. Despite a global economic slowdown, exports are predicted to increase, reaching half a million vehicles a year by 2012. The leading Indian exporter is the Korean company Hyundai, which committed early to the Indian market. Hyundai began production in India in 1998, when consumers were only purchasing 300,000 cars a year, despite the country's population of almost 1 billion people. Hyundai invested in a plant in the southern city of Chennai with the capacity to turn out 100,000 cheap small cars a year. It had to train most of the workers from scratch, often giving them two years of on-the-job training before hiring them full time. Soon Hyundai's early investments were paying off, as India's emerging middle class snapped up its cars. Still the company had excess capacity, so it turned its attention to exports.

By 2004, Hyundai was the country's largest automobile exporter, shipping 70,000 cars a year overseas. Things have only improved for Hyundai since then. By 2008 Hyundai was making 500,000 cars a year in India and exporting over a third of them. It's smallest cars, the i10, are now produced only in India and are shipped mainly to Europe. The company plans to expand its Indian manufacturing capacity to 650,000, and ship up to half of its output overseas. In addition to Europe, Hyundai is now considering selling its Indian-made cars in the United States.

Hyundai's success has not gone unnoticed. Among other automakers, Suzuki and Nissan have also been investing aggressively in Indian factories. Suzuki exported about 50,000 cars from India in 2007 and hoped to increase that to 200,000 by 2010. Nissan also has big plans for India. It has invested some $1.1 billion in a new factory close to Hyundai's in Chennai. Completed in 2010, the factory has the capacity to make some 400,000 cars a year, about half of which will be exported. Ford, BMW, GM, and Toyota are also building, or planning to build, cars in India. A notable local competitor, Tata Motors, launched a low-cost "people's car," priced at $2,500, for the Indian market in 2009.

For all of these companies, India has several attractions. For one thing, the rapidly developing country has a potentially large domestic market. Also, labor costs are low compared to many other nations. Nissan, for example, notes that wage rates in India will be one-tenth of those in its Japanese factories. As Hyundai has shown, productivity is high and Indian workers can produce quality automobiles. Hyundai's executives claim that its Indian cars are of comparable quality to those produced in Korea. Nissan's goal is to use the same highly efficient flexible manufacturing processes in India as it uses in Japan. Nissan plans to send Indian workers to its Japanese factories for training on manufacturing processes and quality control.

India produces a large number of engineers every year, providing the professional skill base for designing cars and managing complex manufacturing facilities. Nissan intends to draw on this talent to design a low-cost small car to compete with Tata's "people's car." According to Nissan executives, the great advantage of Indian's engineers is that they are less likely to have the preconceptions of automobile engineers in developed nations, are more likely to "think outside of the box," and thus may be better equipped to handle the challenges of designing an ultra-low-cost small car.

Establishing manufacturing facilities in India does have problems, however. Nissan executives note that basic infrastructure is still lacking, roads are poor, and often clogged with everything from taxis and motorbikes to bullocks and carts, making the Japanese practice of just-in-time delivery hard to implement. It is also proving challenging to find local parts suppliers that can attain the same high-quality standards as those Nissan is used to elsewhere in the world. Nissan's strategy has been to work with promising local companies, helping them to raise their standards. For example, under the guidance of teams of engineers from Nissan, the Indian parts supplier Capro, which makes body panels, has built

a new factory near Nissan's Chennai facility, using the latest Japanese equipment. Workers there have also been trained in the Japanese practice of *kaizen*, or continuous process improvement.

Observers see the potential for Chennai to develop into the Detroit of India, with a cluster of automobile companies and parts suppliers working in the region producing high-quality, low-cost small cars that will not only sell well in the rapidly expanding Indian market, but could also sell well worldwide.[38]

Case Discussion Questions

1. What are the attractions of India as a base for producing automobiles both for domestic sale and for export to other nations?
2. Both Hyundai and Nissan made their investments in the southern Indian city of Chennai. What is the advantage to be had by investing in the same region as rivals?
3. What are the drawbacks of basing manufacturing in a country such as India? What other locations might be attractive?
4. If Hyundai, Nissan, their suppliers, and other automobile enterprises continue to make investments in the Chennai region of India, how might this region evolve over time? What does this suggest about manufacturing location strategy?

Notes

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