

The Rise Of Indi

IF U.S. MANUFACTURERS ARE GOING TO BE COMPETITIVE in the foreseeable future, they'll need to access the growing market in India. With a middle class population estimated at between 215 million and 300 million and expected to reach 583 million by 2025 (according to the McKinsey Global Institute), opportunities for global-minded manufacturers are abundant, not only in servicing the needs of this market but in creating products adhering to new business models that ultimately will ensure future global markets.

According to Anil K. Gupta, professor of strategy and organization at the University of Maryland's Smith School of Business, manufacturers must view the market in India as three distinct segments: a top tier which will be immediately profitable, a middle tier which is where long-term growth is situated, and a bottom tier where a company won't see a profit but could break even while pushing the envelope on the innovation front.

"Designing new products, services and even entire business models to cater to these unique needs can yield innovations that can serve as cutting-edge sources of

competitive advantage, not just in other emerging economies but also back home in other developed economies," says Gupta. The unique needs of the middle and lower tiers are low buying power, energy and raw material scarcity, environmental degradation and large populations.

Moline, Ill.-based Deere & Co., a manufacturer of farm and construction equipment, is an example of a company that had traditionally viewed the Indian market from its current product line, which was produced in the U.S., and had deemed the Indian market too small, according to Gupta, co-author of *Getting China and*

AS INDIA'S PRODUCTION CAPABILITIES INCREASE, U.S. MANUFACTURERS WOULD DO WELL TO CRAFT A GLOBAL STRATEGY THAT ADDRESSES THE EMERGENCE OF THIS NO-LONGER-SLUMBERING GIANT.

> B Y A D R I E N N E S E L K O

Illustration for IW: Jon Vaik

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INDIA



GLOBALIZATION

India Right (Jossey-Bass, 2009). However, when Deere took a market-centric view, the company began to manufacture in India its new 5003 series of small, low horsepower, highly maneuverable tractors. It turns out this model is now popular with hobby farmers in the United States.

Seeking to serve the growing industrial market in India, the Timken Co., a manufacturer of friction management and power transmission products based in Canton, Ohio, announced in April the opening of its second manufacturing plant in Chennai, India. This plant will be located in a special economic zone at Mahindra World City. The new \$25 million plant joins a plant located at Jamshedpur and a global technology center in Bangalore.

Timken CEO James W. Griffith cited the new plant as a "major step forward in our strategy of driving growth in global industrial markets," in a statement at the plant opening. "We will continue to make investments, both organic and inorganic, to take advantage of strong global demand in our targeted industrial growth markets."



U.S. manufacturers need to be aware of the three distinct market segments in India, and plan their growth strategies accordingly, says the University of Maryland's Anil Gupta.

Nearly 80% of the production of this plant will be exported to the company's operations in the U.S. and the remaining will be sold in India. The Chennai facility will manufacture tapered roller bearings for customers in the global industrial markets.

Deere's competitor, Peoria, Ill.-based Caterpillar Inc., is another company that recently increased its investment in India, to the tune of \$200 million, in order to increase capacity to serve the Indian market. Production of highway trucks used for coal and other mining applications will be bolstered at its facility near Chennai. The company also plans to expand engine production at its facility in Hosur, adding production of the Caterpillar 3508 engine, which will be used primarily in off-highway trucks. Additionally, backhoe loader production will be increased as it is the most widely used construction machine in India.

"Success in India depends on being a local entity," explains Joe Barkai, practice director, product lifecycle strategies with analyst firm Manufacturing Insights, an IDC Company. "Caterpillar has learned that in order to create the market, you have to be in that market. Setting up research centers leading to small manufacturing plants is the way to go. You learn how to do business in India and how to create brand awareness."

Newer industries are heading off to India as well. Signet Solar, of Palo Alto, Calif., established thin-film solar module manufacturing capabilities in India last summer. The first plant is located in the Sriperumbudur Special Economic Zone near Chennai. The company designs, develops and manufactures large-area, low-cost, thin-film silicon

solar photovoltaic modules. This plant is part of a 10-year plan that includes setting up two more plants.

Patience in a Hurry

While many companies are setting up shop in India, others choose to keep their manufacturing facilities in the U.S. but sell to India. Horizons Inc., a manufacturer of printable and markable aluminum and plastic based in Cleveland is highly automated and decided it wouldn't make sense to build in India.

By partnering with Pradip Kamat, president of Indus International, a company that helps U.S.-based companies break into the Indian market, the company is seeing sales in India double in just one year. With Indus handling sales and marketing, including securing necessary licensing, Horizons has 30 customers in India and recently signed a contract with the Indian Navy.

"We have learned that you have to be patient in expecting sales from this market and you must meet many times in person with your customers. However, India as a market is in a hurry and will work very quickly to accommodate progress," says Wayne Duignan, director of international sales for Horizons.

"Companies must clearly understand where they will add value in the Indian market," adds Kamat. "For example, one manufacturer produced a part that at first was considered too expensive for the Indian market. However, when we showed the customer the added costs resulting from poor quality parts, they switched to the U.S.-produced product. But the onus was on us to show them the cost savings."

The importance of manufacturing to India's future cannot be understated. In 2007 it accounted for 27% of India's GDP (by way of comparison, manufacturing accounts for 10% of the U.S. GDP). Manufacturing now employs 25.5 million people and grew at a rate of 12% in 2007. In 2008, it will grow about 8.5% given current economic conditions. Looking ahead to 2014-2015 the sector will have a market capitalization of \$520 billion compared with \$272 billion in 2007, according to the Confederation of Indian Industry.

Viewing India from a global competitiveness standard, its foreign market size is ranked fifth in *The Global Competitiveness Report, 2006-2007* and fourth for its domestic market. The report notes that India demonstrates a strong business sophistication (ranked 27th) and ranks high in innovation (ranked 32nd).

"The country is endowed with strong business clusters and many local suppliers, and ranks an impressive third for the availability of scientists and engineers, and 27th for the quality of its research institutions," according to the report. One U.S. company that views India as a home for research is multinational conglomerate General Electric Co. Its John F. Welch Technology Center in Bangalore is the largest of its four research centers, employing 3,000 scientists.

Harnessing Human Capital

An important aspect of India's current level of competitiveness comes from its pool of talent with over 250 universities, 1,500 research institutions and over 10,000 higher education centers turning out over 500 Ph.D.s, 200,000 engineers, 300,000 non-engineering postgraduates and 2.1 million other graduates each year. And it is harnessing this level of talent in terms of productivity and stability that James Thomas, country manager, India operations of Kronos Incorporated sees as the key driver of sustainable growth in manufacturing in India.

"The future success of India will absolutely be in the development of its human capital," explains Thomas, whose company provides workforce management solutions. "Preventing the churning of employees in organizations by finding the right person for the right job, and then increasing transparency into processes and turning that into high productivity, is the next goal of talent management." Thomas points out that 54% of India's population is under 25 years old and this represents "a center of gravity shift in how companies will operate in the future."

Looking at the current climate, however, India has become very proficient, in a relatively short time, in terms of the quality of its products. The core manufacturing sector comprises engineering and construction, industrial



Timken's new plant in India represents a "major step forward" in the company's global industrial strategy, according to CEO James Griffith.

manufacturing, materials and commodities, chemicals and plastics, and automotive.

The automotive industry in particular has shown tremendous capacity and is line to produce 3.1 million cars by 2010. Nine of the world's top 10 automotive companies have a presence in India. Components for the automotive industry have grown simultaneously and will reach \$18 billion by the end of this year, showing a growth rate of 20% from last year, according to the Automotive Component Manufacturing Association of India.

The automotive industry has been exporting around 20% of its output and growing at the rate of 25%. In 2007-08, exports were valued at US\$3.6 billion versus \$2.9 billion in 2006-07. Principal export items include replacement parts, tractor parts, motorcycle parts, piston rings, gaskets, engine valves, fuel pump nozzles, fuel injection parts, filter and filter elements, radiators, gears, leaf springs, brake assemblies and bearings, clutch facings, head lamps, auto bulbs and halogen bulbs, spark plugs and body parts.

And the level of quality in the automotive sector can be measured by the fact that 180 Indian companies were

awarded ISO 14001 certification, 386 companies have been certified with TS 16949 and 59 companies have been certified with OHSAS 18001. And Indian companies are now taking their share of quality awards. Gunjan Bagla, in his book *Doing Business in 21st Century India*, points out that the Deming Application Prize committee presented its award to 16 Indian companies in 2006. Winners include Sundaram Clayton (seat division of Krishna Maruit) Rane TRW Steering Systems, Brakes India and TVS Motors.

"The issue of quality can be tricky in India, with some companies demonstrating first-class quality, such as the pharmaceutical industry, while other industries are lagging in quality control," explains George Haley, director of the Center for International Industry Competitiveness at the University of New Haven. India is home to 75 FDA-approved pharmaceutical facilities, more than any country outside of the U.S.

Areas of Concern


One area of concern when manufacturing in India is the issue of product inspections. "If you have multiple locations within India and you need to ship from one state to another, there are inspections at each state. This is not true in the U.S. as products are not stopped when shipped inter-state," Haley points out.

In addition to various Indian state regulations there is the issue of local approvals. "But things are changing for the better, as states are trying to streamline processes. The bureaucracy is improving in many states," says Arun Kumar, head of consulting firm KPMGs U.S.-India practice.

Another thing to be wary of is the level of optimism in India, says Barkai. "You'll find companies that are overly

optimistic of what they can deliver and when. You just need to keep an eye on that."

Infrastructure in general continues to be a challenge for India. The government is addressing this issue by spending \$750 billion between 2007-2015. Other issues to contend with include India's macroeconomic instability, high deficits, unsustainable levels of government debt, and fairly high inflation, according to *The Global Competitiveness Report, 2006-2007*. But the Federation of Indian Chambers of Commerce and Industry (FICCI) has its ideas on how to combat those issues. FICCI, which is looking for a sustainable manufacturing growth rate of 12% per annum, wants to see an increasing contribution to the GDP.

The business association, in a recent statement, calls upon the government to "formulate a comprehensive manufacturing policy, which should provide guidelines and directions in terms of incentives and subsidies for the sector; technology development for the sector; development of a sustainable raw material base; regulatory and procedural reforms; and also the guidelines for monetary and exchange rate policy to help the growth of the manufacturing sector." 

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