

From the Corners of the World: The Tiger Globalizes

Exploring India's path toward the global stage as a supplier of natural, nutraceutical, and pharmaceutical products, as well as technology and research.

By Paul Altaffer & Grant Washington-Smith

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In the May issue of Nutraceuticals World, this column discussed the sizzling Indian economy and its promise as an emerging consumer market. No doubt, India's average growth rate of nearly 9% per year continues to impress the world. In addition, the economy's growth is stable with low inflation, passing over concerns that it might be overheating.

As the Indian population grows, prospers and ages, consumers will likely face more Western type illnesses, especially chronic and degenerative illnesses. India is expected to become one of the world's top 10 drug markets by 2015, according to the consultancy group McKinsey. Unfortunately, the World Health Organization (WHO) estimates that India will eventually lead the world in diabetes and cardiovascular disease. While this is bad news for the Indian people, it may be good news for health and wellness companies interested in the Indian market.

On the other side of this coin, India has demonstrated great promise as a developer, manufacturer and exporter of health-related products and services. India's manufacturing prowess, especially in certain industries is beginning to assert itself in the world economy. Additionally, it is also becoming a major global player in technology, product development and clinical research. India's symbol and source of national pride is the tiger, which represents, among other traits, grace, strength, agility and power. The question is whether India can embody these traits as a developer and supplier of products and services.

Manufacturing and Processing Capabilities

India, like China, is often considered a supplier of commodity products. The least cost provider image is often times prevalent in the nutraceuticals, pharmaceutical, natural and organic industries as well. While India does trade in commodities, it is really a producer and exporter of many different products, such as bulk botanicals, chemical intermediates, extracts, pharmaceuticals, spices, functional foods, essential oils and cosmetics. Few people are aware of India's manufacturing and processing capabilities especially when the discussion includes other Asian countries, principally China or Japan.

But in fact, India offers many of the best qualities of both China and Japan. Beginning with resources and capacity, India is a large country with abundant resources, much like China. India also has a large population, much like China. However, it is unique to both China and Japan in that its population is young and growing, whereas China and Japan have aging populations. India is also like Japan in that it invests significant resources into educating its people, producing a highly technical and productive workforce. India is like both China and Japan in that it is a growing recipient of foreign direct investments, which promotes the development of many industries. In fact, the pharmaceutical sector is one of the leading sources of direct foreign investment for the Indian economy.

Another common misconception about India is that it has skipped the industrial boom in their development cycle. The fear is that India has transitioned too quickly from an agricultural and commodity producer to an economy based on services. While this may be true for some industry segments, the facts bear out India's credentials as a manufacturer. India is among the world's largest producers and exporters of chemicals, nutritional products, cosmetic ingredients and pharmaceutical intermediaries. India is also among the world's largest exporters of spices, essential oils, botanicals and fruits, botanical extracts and organic products. This is all true despite considerable problems India has with its infrastructure.

Beyond Generics

Spurred both by a long-standing commitment to develop the pharmaceutical industry, as well as growing demand from its own people, India has emerged as a significant player in the generic and over-the-counter (OTC) drug markets. The pharmaceutical market in India is already worth over \$6 billion and is expected to more than triple by 2015 to \$20 billion. India already produces about 70% of the drugs it consumes and exports 60% of the bulk drugs it manufactures. As a result, India has become one of the world's top five largest exporters of bulk drugs. India's Drug Control Authority regulates pharmaceutical manufacturers in an industry that is over 50 years old. The quality of Indian products is considered excellent, while costs are relatively low and the technological sophistication is relatively high. India has also become an excellent place for investment into manufacturing facilities. This is not only true for multinational companies, but India has also become the birthplace for many small and medium-sized independent manufacturing companies that are at the forefront of this growing industry. A few of these independent companies are U.S. FDA compliant and have entered strongly into the generic drug manufacturing and export business.

Investing in Innovation

India's investment in manufacturing may be overshadowed by its investment in innovation. Over 30 years ago, India introduced process patents, which opened the door to a great deal of investment and entrepreneurial activity. In 2005, India decided to recognize full product patents on pharmaceuticals. This led to investment in R&D and produced considerable innovation. While the investment in R&D, relative to the U.S. or Europe, is still low in both total dollar amounts and percentage of revenues in the trade sectors, by developing world standards India is comparable only to China. The benefit to the entrepreneurial activity in India is that it is producing innovation for a fraction of what it might cost in the U.S. or Europe. Furthermore, the investment into innovation goes well beyond factories.

Gopi Menon, senior research scientist at Nutrilite (a division of Access Business Group), is impressed with what he sees in India. He notes, "China may be known as the place to manufacture goods, but India will also be known for innovation, science, technology and clinical research." Mr. Menon cites many companies with Indian roots that are developing products and intellectual property. India's government and private sector are investing heavily to promote the formation of R&D, manufacturing and clinical centers.

According to a report in *The Economist* ("The Next Big Thing," June 16, 2005), India is producing 120,000 chemists and chemical engineers per year. By 2015, India is expected to double the number of doctors in the country, from 200,000 to over 400,000. It is common knowledge that investing in people and building a skilled labor force are valuable long-term measures to boost an economy and productivity. India is producing a significant talent pool. In fact, it exports a significant amount of talent to the U.S. and Europe—an estimated 15% of the scientists working in the U.S. pharmaceutical industry are of Indian origin.

Clinical Trials

India is also investing a great deal of resources in clinical studies. Due to the combination of skilled labor, low cost and abundance of research centers, India is an attractive place to carry out clinical work. Many foreign-based, multinational companies are establishing research centers and partnerships in India for these very reasons. Additionally, many Indian companies are taking their own lead and investing in clinical research. This ability to produce the clinical work may place India in fairly exclusive company along with the U.S. and Europe. This is also good news for companies interested in developing and clinically testing their products. India may well offer relatively low cost, credible research partnership opportunities.

The Golden Triangle Partnership

There are many different R&D initiatives sponsored by government and industry. One that has interesting potential is the Golden Triangle Partnership. Developed and sponsored by the Central Council for Research in Ayurveda and Siddha, a group operating under the Department of Ayush, Ministry of Health and Family Welfare India, the Golden Triangle Partnership is designed to promote the development of Ayurveda and traditional medical knowledge (www.ccras.nic.in/gtp.htm).

The program aims to sponsor research looking at integrating Ayurveda and other traditional medical systems into modern scientific models in order to identify and develop treatments for a broad range of ailments. The program is using a model that has been referred to as reverse pharmacology or ethnopharmacology. That is, instead of identifying compounds and screening them broadly, the program begins with screening traditional medical systems and treatments for specific ailments, and then establishes the appropriate dosage and safety parameters for the treatment. Once this is done, the focus then turns to the compound(s) and its purification. This effort may well lead to the development of new, affordable therapies as well as a host of new intellectual property. While this is exciting news, it is important to note that this kind of discovery work takes a long time, complicated by the fact that Ayurveda has 80,000 treatments employing up to 3000 plants (The Economist, "Growing Wiser" August 18, 2007).

The Tiger's Pride

India is capable of developing concurrently as a manufacturing power, as well as a technology power. The manufacturing sector is thriving, producing a large number of products from bulk botanicals to purified chemical and pharmaceutical products. At the same time, India is emerging as a leading purveyor of science and research. The phenomena of India's success with high tech and service industries can easily be transferred to the pharmaceutical (including OTC pharmaceuticals), nutrition, cosmetic/skin care and complementary/alternative medicine industries.

India is a growing presence on the global scene of high quality nutritional, cosmetic and natural ingredients, but its greatest promise may be in science, technology and product development.NW



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