

KNOWLEDGE ECONOMY



COMPETITION FROM EMERGING MARKETS

BY FAISAL HOQUE

NOT THAT LONG ago, Americans cast a worrisome eye on Japan and saw a rising economic juggernaut that would conquer the world. Some of that did unfold: Japan's automakers, for example, give U.S. carmakers serious competition.

But something quite different is happening today in Japan and in nations of the developing world. It could be either a threat or an opportunity, depending on how companies in the developed world react, but it will clearly change the playing field for all.

The knowledge economy is taking shape, and knowledge doesn't require complex corporate structures or massive factories to flourish—nor does it necessitate a nation with a huge gross national product. Knowledge begins with an innovative mind that has connections to other minds. Those connections are now being made around the world, and they are expected to lead to a new kind of competition for the developed world.

Consider Daiichi Sankyo Group, Japan's third-largest

pharmaceutical company, which invested \$4.6 billion to acquire a controlling interest in Ranbaxy Laboratories, India's largest pharmaceutical company. Daiichi will gain access to Ranbaxy's low-cost research and production facilities and its expertise in generic drugs. Citing their joint pool of scientific, technical and managerial resources and talent, the companies plan to expand aggressively in both developed and developing countries, with the United States a major target.

Bringing a drug to market generally involves huge costs, but the pharmaceutical companies of the East and the developing world are lowering these costs through collaborations such as Daiichi Sankyo and Ranbaxy. Other pharmaceutical companies are equally busy making connections—and doing so with a cost advantage over their developed-world competitors. They can, for instance, conduct preclinical trials for 40 percent to 60 percent less than the cost of doing so in the United States.

The expansion of knowledge and advances in skills are occurring in other industries as well. Consider the following:

Boeing signed on more than 40 partners to help design and build sections of its new 787 Dreamliner at more than 130 sites around the world.

Linux, the open-source computer operating system, has been created and improved by more than 3,600 developers across the globe. More than 270 companies have employees involved in this effort.

LEARN HOW INNOVATION IS LEVELING THE PLAYING FIELD OF THE KNOWLEDGE ECONOMY.

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InnoCentive, the Internet-based market where organizations with problems connect with freelance problem solvers, has registered more than 145,000 solvers in 175 countries. InnoCentive's CEO says the diversity of viewpoints makes a difference in problem solving.

In addition to becoming sources of innovative ideas, developing nations are growing economically as well. Though the World Bank estimates that growth in developing countries will slow from 7.8 percent in 2007 to 6.5 percent this year, that's still ahead of the industrial-

of Internet users. For the past three years, China has also been the world's largest exporter of information and communications technology, and it already has the same number of mobile phone users as the whole of Europe.

▶ Half of all urban dwellers in India have mobile- or fixed-telephone subscriptions, and the number is growing by 8,000 per month. India makes software for racing cars and jet engines and is one of the top four pharmaceutical producers in the world.

▶ In Africa, people who live in mud

They live where the big problems are. When employees of China's Haier Group, which sells appliances, visited rural customers, they discovered that the customers frequently used their washing machines to clean vegetables. With a few minor changes, Haier was able to market its machines as versatile enough to wash both clothing and vegetables, and it rapidly became the market leader in its home country's rural areas.

The developing world is the next big market, and companies are focused on how these new customers think and act.

"The technology resources available to firms in the developing world are huge and have very low costs compared to legacy assets in the industrialized world."

ized world's estimated growth in 2008 of 2.7 percent, albeit from a lower base.

Emerging markets have driven initial public offerings to record highs, with seven of the top 10 IPOs in 2007 coming from emerging economies, says PricewaterhouseCoopers (PWC). Emerging economies account for 45 percent of world exports and have amassed 75 percent of foreign-exchange reserves, effectively financing large portions of developed nations' indebtedness.

In its annual Global CEO Survey, PWC found that "as they are increasingly competing on an equal basis, CEOs in both sets of countries ... had surprisingly similar responses on their main source of competitive advantage, with technological innovation leading the way. This underscores how the rules of competition are converging around similar principles for all global companies, whether they are based in developed or emerging nations."

IMPROVING THE MARKET

Companies in the developing world bring a unique set of strengths to the global marketplace.

They take advantage of new technologies. An article ("Of Internet Cafés and Power Cuts") in the February 2008 issue of *The Economist* illustrates how technology is spreading to emerging markets faster than it has done anywhere else.

▶ China will overtake America as the country with the world's largest number

huts use mobile phones to pay bills or to check fish prices and find the best market for their catch.

The technology resources available to firms in the developing world are huge and have very low costs compared to legacy assets in the industrialized world. Open-source software and software services such as Amazon's cloud—not to mention ubiquitous cell phones and free social networking resources—give these firms everything they need to become players in the global marketplace.

They approach innovation unconstrained by tradition. Donald Sull, an associate professor of management practice at the London Business School, writes that companies in the developing world "share a distinct approach to innovation: They strategically exploit an intimate knowledge of their customers' mind-sets, they innovate around (rather than through) technology, and they scour the globe for good ideas. They take pieces of practice or technology that they find and recombine them in novel ways to solve customer problems."

Take Cementos Mexicanos, the world's third-largest cement company, selling in more than 60 countries. The firm created a GPS system to supply contractors with just-in-time delivery. It got the idea from a 911 call center in Houston. CEMEX execs figured that a system that enables medical response teams to respond quickly would also work for urgent cement deliveries.

Not surprisingly, the major international companies also are finding ways to tap into these new markets and the innovative ideas they have to offer. A study conducted jointly by India's National Association of Software and Service Companies (NASSCOM) and Booz Allen Hamilton found that the worldwide sourcing of innovation is growing far more rapidly in nations such as India, China, Thailand and Brazil than anyone anticipated a few years ago.

The study reports that current global spending on offshored engineering is \$15 billion. By 2020, that will expand to between \$150 billion and \$225 billion, with the growth coming from emerging markets such as India, China and Russia. "Although the impetus to reduce labor costs accounts for more than 90 percent of offshored innovation work in emerging markets today, that goal will give way during the next 10 years to more strategic priorities: market access, resource quality, increased productivity and expanded capacity," the study says.

Industry leaders are already expanding their innovation footprint to tap into the skills and creativity in the emerging world. According to the study, "One major automotive-component supplier is aggressively expanding its network into China and India. At its automotive R&D innovation site in Bangalore—one of the largest in India—3,000 employees are working on high-end electronic control units,

tools and diagnostics. Toyota has set up a center for small-truck design in Thailand, its first non-Japanese product design facility. And of all the regions in its network, Cisco is winning the most U.S. patents for new products developed at its Indian R&D operation.”

This is the first lesson for countries in the developed world: to view innovation as a collaborative endeavor. An internal R&D department may be necessary for strategic continuity, but, as has often been said, the smartest people don't work for your company. They must be found and engaged.

Also, innovation involves more than products: It is very often found in processes and business models. Nascent companies in emerging markets may have the ideas, products, processes or models that can be the next step for an established company.

EMBRACING NEW IDEAS

An established company's governance must adapt to embrace these new ideas. This requires protection for ideas, incentives for the people who advance them, organizational structures that welcome what arrives from out of the box, processes and technologies designed for this new strategy, and an agile organization that realizes it is constantly evolving. It will result in a more modular organization, and pieces of the end-to-end value chain may best reside in far-flung places, linked by technology.

Companies must embrace the concept of the extended enterprise—seeing value creation as a process that stretches beyond the four walls to include not just suppliers and customers, along with their suppliers and customers, but also idea generators, marketing partners, and negotiating partners that deal with legal and national thickets.

The developing world is a laboratory—not just for technological or scientific breakthroughs—but also for the different business models required to produce and profitably bring to market products and services. These, by necessity, are lower-cost models, and they will inevitably find their way into the industrialized world. See the examples below.

▶ Dr. Reddy's Labs, the largest Indian pharmaceutical company, is developing a “poly pill” that combines into a single pill the four most common medica-

tions taken by heart patients. Managing Director Satish Reddy says his company could market this in the United States for less than \$30 per patient per year.

▶ Tata Group, one of India's largest companies, recently unveiled the “one lakh,”— the world's cheapest car, selling for the equivalent of \$2,500.

▶ Mindray Medical, a Chinese manufacturer of diagnostic and ultrasound imaging equipment, has simplified the technology of MRI machines to sell them in China. Now it's expanding internationally, selling this equipment in Europe and the United States, and sales are rising rapidly.

What is instructive about these firms is how they mix product innovation with business model innovation. They are scrappy in their pursuit of customers.

Dr. Reddy's started as a supplier to Indian drug manufacturers, but later began exporting to markets with little regulation. With the profits made from

those markets, the company began to reverse-engineer patented drugs from more developed nations and eventually got approval from drug regulators for its formulations and manufacturing plants.

The Tata Group didn't wait for a mass customer base to become affluent enough to buy Tata Motors' products. Instead, it engineered the “Tata Nano,” dubbed “the People's Car,” to improve the transportation of the masses and provide an affordable car.

In the end, such creative application of knowledge will trump established economic might and will level the playing field for everyone. ◀

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