

Ideas are no longer a one-way street. Good products designed and developed in India are now flowing to the rest of the world, reports Kala Vijayraghavan

# Best Of Both Worlds

## The Chartbusters

These 9 products were made in India. Since then, they are being launched elsewhere in the world



### Ford Figo

A thousand Ford engineers worked to build the Figo. It has sold 30,000 units in 25 weeks and will be sold in 50 countries including Mexico, North Africa and the Middle East

### Toyota Etios

At least 2,000 engineers from India and Japan worked for over four years on the low-cost car. Etios will be launched in Brazil, South Africa and China



### Nokia's Learn English Application

The service, developed for the Indian market, has 6 million users worldwide. The company is looking to take it to new consumers, such as the Hispanic population in the US. It also plans to replicate its tie-up with IGNOU globally

### Tata Swach

The mass-market water purifier was initially meant for the Indian market, but will soon be exported to African countries with similar climatic conditions, and even the US and UK



### Nestle Maggi Masala-ae-Magic (₹ 2)

The high-nutrient and low-cost variant of Maggi noodles developed for the rural poor in India and Pakistan, is on its way to Australia and New Zealand



### Pepsi Kurkure and Nimbooz

After tasting success in India, PepsiCo plans to launch these products globally. With these, it will reverse its process of innovating in emerging markets and distributing products in developed markets



### HP's SiteOnMobile

The company's Indian research arm introduced a service that enables web access from low-end phones. It also worked on hand gestures for computer interfaces. HP plans to take this technology global



### McDonald's Aloo Tikki Burger

With vegetarianism catching on globally, the market is ripe for Big Mac's 'very Indian' burger. There are plans to introduce the product across Europe and the Middle East



### KFC Krushers

The range of chilled drinks was developed here with a unique combination of chocolate, cookie bits, coffee, dairy and ice. KFC now plans to take it to other markets

JULIA ROBERTS EMBRACING HINDUISM may not exactly be the best case study for reverse innovation, but 20 years after yoga and ayurveda went global, a medley of products built on Indian innovations are slowly finding their way into world markets.

Ford and Toyota want to sell their India designed low-cost cars globally. Nestle's high-nutrient and low-cost variant of Maggi noodles, a ₹2-a-packet product developed for the rural poor in India and Pakistan, is on its way to Australia and New Zealand, and General Electric, one of the early practitioners of reverse innovation has been making cheaper, stripped-down versions of its ECG and ultrasound machines in India and taking them to world markets.

The list is long and growing—Kentucky Fried Chicken's (KFC) Krushers, a range of beverages developed here with a unique combination of chocolate, cookie bits, coffee, dairy and ice, a nifty learn-to-speak-English mobile phone application from Nokia, Pepsi's Kurkure and Nimbooz, McDonald's Aloo Tikki Burger are among the innovated-in-India value-for-money products that are now being sold to millions of global consumers.

"Innovation from India has moved on from culture (ayurveda and yoga) to packaged consumer goods and now to manufactured things such as the Tata Nano or the Swach (low-cost water purifier)," says R Gopalkrishnan, executive director, Tata Sons. "This is the tip of the iceberg, we are going to see a lot of innovations going out to developed markets from India," says KFC's marketing director Unnat Verma.

In fact, Xerox has employed researchers in India to scout for inventions and products from start-ups here that it could use in North America. The company calls them 'innovation managers'.

Why the rush? Two reasons. First, multinational companies and global consumers are both hunting for value in the immediate aftermath of the worldwide recession. "Slow growth in developed markets after the great recession is encouraging innovation in emerging markets," says Vijay Govindarajan, a leading expert on strategy and innovation and the founding director of the Center for Global Leadership at the Tuck School of Business at Dartmouth College.

Historically, MNCs designed products in developed markets and adapted them for the rest of the world—the technology came first, the pricing followed. But reverse innovation or trickle-up innovation refers to the opposite. It refers to low-cost, but high value products developed primarily for emerging markets that eventually graduate to the developing world. The technology is tailor-made with an affordable price in mind.

Multinationals are changing their business strategies: If any innovation helps reduce operational and manufacturing costs, it will go global. "There is a permanent shift in consumer behaviour; there is a lifestyle change not to overspend and to seek the same value at lower prices," says KFC's Verma.

Second, Indian innovation and frugal engineering skills are being taken seriously. The Nano, despite its many initial troubles, is seen as a breakthrough innovation that could eventually be launched as an upgraded version in developed markets.

"I don't think options of this nature were ever given to consumers in developed markets. The entire cost structure in the West prevented consumers from having the access to economically priced products," says Sunil Alagh chairman, SKA Advisors, formerly MD with biscuits major, Britannia.

"Reverse innovation has two parts," says Govindarajan. "First is to innovate in India. Here local companies have the edge since they understand the consumer. The second step is to take the innovation global. Here, multinationals have an edge because they have global brand name and distribution."

FINNISH handset major Nokia's Ovi Life Tools application, which provides coaching in conversational English and access to crop and weather patterns, has been replicated in emerging markets like China, Indonesia and Nigeria. The company plans to take the service, introduced in India, to western markets too.

The Learn English service alone has 6 million users worldwide, and the company is looking at new markets. The large Hispanic population in the US, for instance, can make use of it, says D

Shivakumar, MD & VP, markets, Nokia India. "The next set of uses can be in any language in any country," explains a company spokesperson.

The application relates to the consumer in an intimate way—it teaches him conversational English through his mother tongue. When a consumer subscribes to the tools, he gets a word each day phonetically in his phone. This means, he is taught the structure of the word and how to pronounce it. The consumer is also tested at the end of the course.

Learn English supports 12 Indian languages, and comes in three levels—the six-month basic and intermediate modules and the life-long advanced course. Nokia initially targeted the service at consumers from semi-urban, rural and even urban backgrounds—mainly migrants or those in entry-level jobs, who may not have access to courses or the requisite finances.

The company has taken its consumer engagement in education a step further, and tied up with Indira Gandhi Open University (IGNOU), which conducts distance learning courses across the country. The idea was to impart quality education through a mobile device, which has a wide reach, in India. The company plans to take the service global.

For six months next year, Nokia and IGNOU plan to offer a certificate programme in functional English based on Ovi Life Tools in select locations. With every phone supporting Ovi Life Tools, Nokia will offer IGNOU admission forms. Besides receiving study material and related support from IGNOU, students will also receive learning aids through Ovi Life Tools everyday. Nokia could roll out similar models in other countries some day, says Shivakumar.

Besides these initiatives, its handsets manufactured in Chennai with features such as FM radio and a torch, both India innovation, are exported to more than 50 countries.

## ADDING VALUE

MNCs and global consumers are both hunting for value in the aftermath of the recession. Companies are changing their business strategies: If any innovation helps reduce operational and manufacturing costs, it will go global.

THE tanking global economy in 2008 singled global automobile companies, and taught them a valuable lesson—develop fuel efficient small cars in developing markets like India and China. In this respect, Ford and Toyota were quick learners.

With its latest compact car Figo, Ford India took a new route. So far, most its 'global' products—Escort, Fiesta, Fusion, Endeavour—have been re-engineered for India. The Ikon was the first step at developing a car here. The Figo, though, is largely engineered in India and meets global needs. Its development is part of Ford's global strategy—One Ford—sell the same model, built the same way, in all markets. The strategy has helped keep costs 20-30% low and improve quality.

Starting next year, the auto major will take the India-made subcompact car to 50 new markets, including Mexico, North Africa and West Asia. "The Figo was developed keeping in mind global opportunities," says Michael Boneham, president and MD, Ford India.

Figo took two years to develop, and was launched in March 2010. The company pumped in \$500 million into the project. While the testing and development was done in 17 countries, fixing Figo's 160 suppliers, testing the underbody, handling and suspension was done in India.

"The product had to be right for India and the export market," says Nigel Wark, Ford India's ED, marketing sales and service.

While this strategy helps reduce errors, it is a viable one as consumers the world over are coming closer, demanding the same standards of value, safety, fuel efficiency and design.

"By 2012, more than 70% of the vehicles sold under the Ford brand globally will be built off 15 core platforms," says Joe Hinrichs, president of Ford Asia. Since, emerging markets like China and India are growing faster than developed markets, more development will happen here.

The One Ford plan helps Ford adapt

and localise. "It has made us a better company in India and around the world," adds Hinrichs.

Japanese car maker Toyota Kirloskar too is keeping close watch on its Indian subsidiary, with global markets such as Europe, US and Japan not growing much.

The company was keen to have a product in the volume segment. Besides, it had no small cars in its portfolio. Various options from its current global portfolio were examined, but the company finally decided to build a car in India, for India, and take it to the rest of the world. And that is how Etios was born.

Nearly 2,000 engineers from India and Japan were given a clear brief: make a good quality, low-cost car. They worked for over four years on developing the car. Most of the components were sourced from India. Etios will be launched in the domestic market next month, followed by Brazil in 2012 and thereafter, in South Africa and China.

"The success of the product in India will help us to extend our development experience and techniques to various global markets," says Sandeep Singh, deputy MD, Toyota Kirloskar.

BUT there's more than commerce and bottomlines driving innovations out of India. Some of these service a segment that is often beyond the purview of even basic needs. GE's low-cost, portable electrocardiogram machine—the MAC 400—which now has users worldwide, was created here out of the need to cater to India's rural population.

A few years ago, ECG machines were priced at \$2,000. GE conducted a survey, and found that even a basic imported model was expensive for the Indian market. The printer accounts for a big portion of the cost.

GE worked on the idea, replacing the proprietary printer with one used in buses to print tickets. It invested half-a-million dollars to create the MAC 400, and launched it in the US as the improved MAC 800, in 2009.

The product was a huge success: Over 5,000 machines were sold in more than 50 countries; just 20% of those sales were in India. The demand was so high in China, that GE decided to manufacture it there. It crossed 20,000 units in installation across the world, making it the largest selling ultrasound system from GE.

"I like to call this our first 'reverse innovation' experience, though we were only thinking about spreading quality healthcare in India," says V Raja, president & CEO, GE Healthcare.

The initiative spurred GE to do more work out of India. It has over 5,000 engineers and scientists working on healthcare solutions for the world out of the John F Welch Technology Centre in Bangalore.

It wasn't easy getting here, though. One of the critical challenges the company faced was the 'Made in India' tag, which was not acceptable even in India—it denoted inferior quality. The company had to begin sustained exports of products manufactured here to negate the perception.

"It was impossible to think about creating high-end healthcare solutions right here. It did take some effort for us to put together our first indigenisation idea in the form of portable ultrasound," says Raja.

The idea gained acceptance outside India even before it was received here. "It was seen as the personal ultrasound by western healthcare providers, much in the way computers have become personal computers," he adds.

HP Labs India, the research arm of global IT major Hewlett-Packard, too worked on ideas that gained currency worldwide. It launched SiteOnMobile recently, which enables web access from low-end phones without GPRS connectivity. It also launched gesture-based interaction for computers in developed markets, wherein pens, touch and hand gestures are replacing the keyboard and mouse. HP plans to make this technology globally available in the next few months.

Portable healthcare devices, low-cost cars or educational packages may be gaining acceptance globally, but in India, we've been there, done that for a while. The concept of reverse innovation too has been around for some time, as Shivakumar of Nokia points out. In the 1970s and 80s, for instance, R&D work done here drove substitutes for raw materials and packaging. Whether it's necessity or invention, India's been the crucible in many ways.

(Inputs from Lijee Phillip and N Shivapriya)

## TALKING HEADS



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**R GOPALKRISHNAN**  
Executive Director, Tata Sons



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**VIJAY GOVINDARAJAN**  
Founding Director of the Center for Global Leadership, Tuck School of Business



There will not be a hurricane change in the way products are innovated, but there will be a sustained increase in innovations going out from India to developed markets.

**SUNIL ALAGH**  
Chairman, SKA Advisors and former MD, Britannia