# India: the factory of the world for cheap, innovative products

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The phrase Made in India sounds somewhat unnatural, perhaps because we have become quite familiar with the words Made in China. However, the number of products manufactured in India is rising like never before, and the world is becoming increasingly accustomed to seeing products made in India. Although India cannot yet compete with China, the world's largest exporter of consumer goods and electrical and electronic products, cheap and innovative Indian products, which reflect the distinctive lifestyles and characteristics of the Indian people, are spreading from the Indian market to other developing countries, and making inroads in advanced countries.

## The Tata Nano, the origin of the low-cost compact car furor

Recently, many products claiming to be the world's cheapest have hit the Indian market. The list of cheap Indian products goes on and on:

personal computers for USD 75, released in 2005; cell phones for USD 20, released in 2008; Android smart phones for around USD 200, released at the end of 2010; the Aakash Tablet PC for USD 50, released in October of 2011, and Oorja stoves for USD 23. In 2009, cheap water purification systems were introduced by Tata Chemicals in India, where water is scarce and has poor quality. The cheapest water purification system costs only INR 499 (USD 11). The Indian conglomerate Godrej Group has developed a small and portable cooler-type refrigerator called Little Cool, which sells for USD 70. For Little Cool, Godrej reduced the number of parts used for the refrigerator from 200 to 20. Instead of a compressor, Little Cool runs on a cooling chip and a fan, similar to those used to cool computers.

Among all of the cheap, innovative products being made in India, the Tata Nano is surely the most well-known. The Nano, at only USD 2,200 (INR 100,000), stunned the world when it was first introduced by Tata Motors at the Delhi Auto show in January of 2008. People were fascinated by the Nano's sleek and cute design, which was as splendid as that of cars produced in advanced countries. In 1998, Tata Motors developed and launched the Indica without any help from global carmakers, and the company's innovation continues. At the Geneva Motor Show held in early March, Tata Motors unveiled the Megapixel, with a fuel economy of 100 kilometers per liter, fueling the fervor for made-in-India products.

Bajaj Auto, an Indian conglomerate that used to specialize in two- and three-wheelers, ended its alliance with Renault-Nissan and went its own way. Inspired by the Tata Nano, Bajaj released the world's cheapest car, the RE60, at the Delhi Auto Show in January of this year. The exact price of the RE60 was not disclosed, but it is expected to be lower than that of the Nano. In fact, the Nano was a shock to global automakers with a presence in India. Automakers including Hyundai Motors, Ford, and Toyota rushed to develop compact cars in order to enter India's low-end market, which is the largest market in the country. Hyundai Motors released the 800cc EON late last year. Ford began to sell the Figo in 2010, after two years of development. Toyota India, which had had no compact car line, completed four years of research and development to introduce its first cheap compact car model, the Etios, in 2010.

## Indian innovation, bringing joy to the world's low-income population

Low-end products developed in India are exported to other countries through Indian and multinational companies. Their main export destinations are developing countries, including those in Southwest Asia and Africa; however, they began recently to be exported to a new niche market, targeting low-income populations in advanced countries in the West.

In 2009, Tata Motors began selling the Nano in Africa, including South Africa and Kenya, as well as in Asia. The company plans to develop an upgraded model, the Tata Nano Europa, for export to Great Britain and other European countries. Hyundai Motors, Ford, and Toyota have similar strategies, to develop small cars in India and sell them in the Middle East, Africa, China, and other developing regions.

Interestingly, companies focusing on developing cheap, innovative products in India are not small and medium-sized enterprises, but conglomerates, such as Tata, Godrej, and Bajaj. Big companies saw business potential in the sheer size of India's low-end market. Tata Group, in particular, has been developing passenger cars, purification systems, and housing for the poor as a social contribution. This phenomenon was greatly influenced by Professor C.K. Prahalad, who put emphasis on the Bottom of the Pyramid (BOP) market. Born in India, Professor Prahalad studied at Loyola College, Chennai, and the Indian Institute of Management, Ahmedabad (IIM-A). Thanks to his background, he was able to ascertain the potential of the world's low-income market. According to Professor Prahalad, the BOP market has characteristics totally different from those of

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advanced countries; therefore, a company should take a totally different approach across all processes of operation, from design and production to pricing and distribution. Hindustan Unilever Limited (HUL), an Indian subsidiary of Unilever, was the first to jump into the BOP market. After four years of research, HUL developed the USD 43 Pureit portable water purification system.

With R&D costs lower than those in advanced countries, the Indian market has been a good test bed for technology innovation for multinational food and beverage companies. McDonald's McChicken and McAloo Tikki (potato croquette burger), developed in India, are now sold in the Middle East, as well as in Europe and other advanced countries. Nestlé first developed Maggi instant noodles to target housewives and young people in Indian cities, but they are now sold as affordable health food in other countries, including Australia and New Zealand.

## Attracting the world with Jugaad spirit

Price is not the only reason the world is paying keen attention to cheap, innovative products made in India. India has succeeded in reducing costs through innovation in design and manufacturing, identified customer needs, and sought innovation in pricing and distribution. In these ways, manufacturing strategies in India are different from those in China, where mass production systems seek the maximum production at the lowest labor costs.

U.S. consulting firms and management academia point to the Jugaad spirit as the reason for the success of cheap, innovative products made by

Indian companies. They have praised the Jugaad spirit as the source of Indians' ability to find solutions by creative means in order to survive in an unfavorable environment. Surprisingly, some Indians regard the Jugaad spirit as a last minute quick-fix—a shameful characteristic of Indians. In remote villages with no proper transportation, people make a kind of passenger car by taking steel sheets from obsolete jeeps and joining them to wooden planks to make a chassis, using a water meter motor as an engine. The resulting car costs less than USD 400, but satisfies in essence the requirements of a vehicle as well as passenger cars that cost more than USD 10,000. The Jugaad spirit has risen to remarkable prominence as an innovative management technique, as has the Japanese idea of Kaizen (practices focusing on continuous improvement of manufacturing processes in order to make perfect products).

The Jugaad spirit is alive not only in India's manufacturing, but also in its software and service sectors. Hospitals are one example. Aravind Eye Hospital, one of the world's largest ophthalmological hospitals, performs about 200,000 cataract surgeries a year, but the surgery costs only USD 50-300, between one-tenth and one-sixtieth of the cost in the USA. At the heart of the Hospital's cost competitiveness is the McDonald's system. The Hospital has introduced an assembly line system, in which eye surgeries are performed in an operating room with many beds, so that the surgeon can perform surgeries one after another. The result of this process innovation is a higher turnover rate; one surgeon can perform more than 50 surgeries a day. Such an innovation was possible because Avarind Eye Hospital was founded as a social organization for the well-being of the Indian population, a large portion of which is going blind and has no money to pay for eye surgery.

Cheap, innovative products are made not only by Indian companies, but also by multinational companies having a presence in India. GE Healthcare has used Indian engineers to develop a portable electrocardiograph machine that costs only USD 1,000, one-tenth of the standard price in the USA. This model is currently sold in 50 countries, including the USA. As this example suggests, there are an increasing number of cases in which global companies are utilizing India's excellent engineering technology and cheap production costs to manufacture inexpensive, innovative products in India, and selling those products in their own countries or in third countries. This phenomenon, called reverse innovation, is contrary to the past practices of developing new products in advanced countries, and then selling them in developing countries.

On the "2010 Global Manufacturing Competitiveness Index," Deloitte Consulting ranked India second, after China, acknowledging the strengths of India. With world-class software development and engineering, India is evaluated highly in research and development, which is a crucial factor for innovative manufacturers. Moreover, the vast size of India's low-end market makes the country more favorable than any other developing country, for the design, development, and manufacturing of innovative products.

## Indian strategies for Korean companies

Korean companies always face a dilemma when making strategies for entering developing countries such as India. They do not believe that they can successfully compete with local companies in the low-end market, which represents the majority of the entire local market. Many focus on high-end markets, despite their small size, and stay away from local competitors. In high-end markets, however, Korean companies are lagging behind Japanese and Western companies with advanced technology, high quality, and high brand awareness. Trapped between the two ends of the market, Korean companies are having a difficult time with market positioning, unable to grow or make profit.

Sticking to the Korean way is no longer advantageous for Korean companies. The chances of success are slim for Korean companies that value only their own experience and judgment, develop products based only on the Korean sense of beauty and benefit, and sell products using the same strategies they used in Korea. It is the right time for Korean companies, which have already entered India and secured local sales networks, to make efforts to discover and take advantage of the strengths of the Indian people. Making the best use of the Jugaad spirit, Korean companies should pursue cost competitiveness, which will enable them to outcompete local companies. Localization is essential, wherein full understanding of the characteristics of the low-income market precedes developing and marketing appropriate products. Korean companies will benefit greatly from listening attentively to experts who advise that one of the biggest secrets to the success of localization strategy is delegating authority to locals who know local conditions.

# India's globalization, the world's Indianization

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When two different cultures meet, a cultural shock is the first thing to happen. Then the shock develops into either an extreme cultural clash or coexistence. Neither an individual nor an organization can continue to exist without addressing cultural differences in one way or the other.

Cultural clashes often take the form of conquest by war or other violent means. By transplanting their own culture, the conqueror causes the demise of its counterpart's culture. Examples can be easily found in the process of colonization by the West during the Age of Exploration in the 15-17th century. It also occurred during the Japanese colonial rule over Korea from 1910 to 1945, when Japan tried to destroy Korean culture under the pretext of "Oneness of Japan and Korea." As history suggests, and it remains true today, conquest has been the easiest option for a privileged class or individual to obliterate another's culture.

When two cultures choose the path of coexistence, there might be an initial period of conflict. Relationships of coexistence can be either vertical or horizontal, but the two parties ultimately find a way to live together. Among the various methods of coexistence, India's is quite unique. More precisely, India has blended various methods of coexistence.

## The Indian melting pot

Since ancient times, India has adopted generous policies to accommodate foreign cultures. Although, whether they were generous, accommodating, or indifferent is subjective. A fusion of cultures began in India with the cohesion between nomadic cultures that originated from Aryans who moved to India in 1500 BCE, and sedentary agrarian cultures. This is a good example of "Indianization"—people immigrating to India blend together into one Indian culture.

Traditionally, distinctive Indian culture formed and morphed naturally, as foreign cultures entered and blended into the Indian culture through the process of Indianization.

Indianization could be defined as "unity in diversity," where different cultures do not simply combine together, but develop a new culture, with distinctive characteristics, through convergence. Interestingly, this resulting new culture is highly magnetic, and another foreign culture can enter and assimilate into the culture easily. Indian culture not only readily accepts other cultures, but also spreads easily.

The magnetism of Indianization has always been, and still is, powerful. Sarvepalli Radhakrishnan, a renowned Indian philosopher, states in *Eastern Religions and Western Thought* that Indian culture has had traces of exchanges with the Arabian Peninsula and the West since the Indus Valley Civilization. He also claims that after Alexander the Great reached the northwestern region of India in 327 BCE, Indian thought, mainly Buddhism, which was prevalent at that time in India, spread as far as Alexandria. In addition, under the Persian Islamic culture of the Mogul Empire, Indian books were translated into other languages and spread to the West, triggering the curiosity of Western Europeans. Later, during the Western European colonization period, Indian thought and religion became important themes of study for many Western scholars. The impact of Indian thought, especially Buddhism and Buddhist thought, on the East, including China and Korea, is undeniably massive.

However, since the colonization of the West, and the First and Second World Wars, the world has been riding on massive waves of Westernization under the names of capitalization and democratization. This movement was accepted by the masses because of the most instinctive human reaction. The phrases “History is written by the winners,” and “The powerful benefit from justice,” suggest that justice naturally leans toward the powerful. However, the West began to turn its eyes to the East, reaching the limit of its tolerance for the influence of science and capitalization, and India’s true character slowly became known to the world.

For example, the hippie culture of the 1960s was derived from the actions of young Westerners seeking escape from established institutions. The Beatles were eager for a musical breakthrough when they came across Transcendental Meditation (TM). Through the Beatles’ music, Westerners took interest in India directly or indirectly. In particular, this served as an opportunity for the globalization of yoga.

Hindu temples are ubiquitous in Western society. Recently, Tibetan Buddhism has found its way to the West, offering spiritual sanctuary to Western people who have been stuck in empiricism and rationality. Tibetan Buddhism has influenced various cultural sectors, including Hollywood. Some people denounce this phenomenon as a drawback of New Age. However, one can also argue that this is a natural course for modern people who are spiritually depleted in disproportion to their material abundance.

## Integration of economics and ethics

Demonstrators have taken to the streets around Wall Street to protest predatory capitalism based on free economy. Amartya Kumar Sen, who was awarded the Nobel Prize in Economic Sciences in 1998, and was the first Asian to win the prize, examined the Occupy Wall Street movement using welfare economics. He concluded that inequality and poverty ultimately come from the difference between the purposes of economics and ethics. He claimed that economics has a thorny relationship with ethics from the moment they meet. In other words, the purpose of economics is the pursuit of profit, and that of ethics is the revelation of human nature and consideration for one another.

In the process of pursuing profit, however, ethics often becomes lethargic, and even ostracized. Distrust and denial between economics and ethics often result in the defeat of ethics by the power of huge capital. The problem in reality is that even in cases where ethics is relevant, it ends up merely playing a role as a means to pursue profit.

Amartya Kumar Sen tried to set the stage for self-examination, to lay an ethical foundation again through new reflection on the origin and achievements of economics. Amartya Sen's idea, of integrating economics and ethics, is greatly influencing the field of economics, and other related fields, on the academic front. This idea is influencing regions all over the world, including developing countries.

As one of the axes of the Asian economy in the 21st century, the other being China, India is emerging as a country at the center of the international community. Accordingly, the world is paying attention not only to India's spirituality and culture, but also to the Indian economy and society. Korea is becoming increasingly exposed to the Indian culture through an influx of foreign workers from South Asian countries, including India, Bangladesh, Pakistan, and Nepal, and an increasing number of multicultural families. Following the Comprehensive Economic Partnership Agreement (CEPA) concluded between Korea and India in 2009, the two countries have formed bilateral relations by enhancing economic exchanges.

## Westernization as a process of Indianization

Borrowing from traditional Indian thought, Indianization is a natural point of arrival within the cycle of the universe. In other words, if India is the starting point as well as the ending point in the spirituality and culture of mankind, turning to India in a time of confusion and difficulty is tantamount to people returning home after years of wandering. People who have returned home might leave home again, but Indians believe this is as natural a process as space goes through in the processes of creation, maintenance, and extinction.

Despite the pride Indians convey, India today seems to be moving toward globalization, in the mold of Western capitalism. In fact, India is undergoing rapid Westernization across the culture, including movies and the food service industry. In the past, Indian movies showed distinctly Indian characteristics, using subjects and methods unique to India. Since the 2000s, however, Indian movies have become rapidly westernized, and have lost their distinctive charm. These movies sometimes look like Hollywood movies in Hindi. In addition, fewer Indians wear traditional costumes, and chai tea, India's national drink, is being increasingly replaced by coffee. This reality comes as a shock to many people. In particular, Westernization in India has spread rapidly among young people, creating severe new social ills. An Indian newspaper column expressed concerns for the fate of Indian traditions, stating that Indian students are more fluent in English than in Hindi.

There are many examples of India's Westernization. India and the

Philippines are often cited as Asian countries in which satellite television broadcasting has been successful. The reason for this success is that English is an official language of these countries. The advancement of the IT industry, which has created borderless networks, has played a role in facilitating India's Westernization. The concern over Westernization is shared by many countries, but it does not seem to be a threat to India. Traditionally, distinctive Indian culture formed and morphed naturally, as foreign cultures entered and blended into the Indian culture through the process of Indianization. India's globalization, or Westernization, is perhaps another example of Indianization. It is unclear whether the Westernization of India is simply this quintessentially Indian process, or an unprecedented occurrence. Either way, history will likely define this phenomenon as another example of Indianization. C