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Internationalise your Innovation Value Chain

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Abstract

Innovation used to be an activity that was mainly carried out by companies in industrialised countries. It still is often mentioned as the ultimate defensive strategy for companies in North America, Europe or Japan against low cost manufacturing and services in China and India. But this not a correct picture: there is already a wealth of innovative activities ongoing in emerging countries. For large and small companies from industrialised countries this is an enormous opportunity to internationalise their innovation value chain. But innovating in emerging countries requires some adaptation in our normal innovation management systems. There are some specific hurdles to innovate and we can learn from local companies how they overcame these hurdles. Based on a study of more than 30 Asian companies we provide you with some inspiration on how to innovate in emerging countries

Key words: innovation management, emerging countries, case studies

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International R&D within the traditional industrialised world has been popular now for more than 30 years. The first academic descriptions of how multinationals organised R&D on an international scale date from the seventies. And since the early nineties it has almost become commonplace and we have understood much better what is at stake and how to manage international R&D. But the world is evolving and today it is the whole innovation value chain that is becoming international and this beyond the industrialised world. Emerging countries become important players in innovation. And this does not only apply for large companies like Dell in PC's, Novartis in medical drugs or Dassault Systemes in software development. Smaller companies can and should take advantage of the incredible power of new ideas that exist outside the traditional industrialised countries (i.e. North America, Japan and Western Europe). There is a whole world of new customer demands and thus new solutions developing in emerging countries in India, China, Latin America or South Africa that can inspire us. And there are new companies in these countries with which we can collaborate to bring *innovations* to the market.

Think about it in this way. In emerging countries one can become middle class as soon as you earn about € 5000 per year. With such an income you can invest in real estate, you can make some savings and express specific customer requirements by your buying behaviour. A rough estimate will show that in 2005 there are about 550 million members of the middle class in India, China, Brazil and South Africa. And every month there are a few million more joining these ranks. That sounds good news to companies from industrialised countries who can hope to see the markets for their sophisticated products growing every day.

But there is one assumption here that may not be 100% correct, and that is that these people will be interested in the same products as their counterparts in Japan, Europe or North America. That may not be the case. Yes they may buy the same brands in motorbikes, cigarettes or upmarket sports clothes and shoes, but in their daily life they display very different needs in terms of food, clothes, entertainment, etc. If you can cater for these needs you may actually tap in large markets. But the opportunity can be even greater. One can see that many of these specific needs can be a source of innovation that with some adaptation may actually work extremely well in industrialised countries and feed their need for innovation. It is already happening.

Consider the Korean film industry. Like many countries Korea has a well developed local film industry that caters almost exclusively to local needs. The same is true for India (the term Bollywood has gone around the world to describe the large movie industry in Mumbai) or Egypt. But the products of these film industries rarely go beyond the borders of their countries and when exported they are often seen as 'quaint, nice to watch once'. Not so for the Korean movie industry. In 2004 for the first time it had a bigger local market share than movies coming from the US. But it also exported the movies, received international prizes, the movies were available on the screens in Paris, London, Tokyo or New York and as an ultimate recognition the Hollywood companies made deals with the Korean film industry to adapt their movie stories to a typical Hollywood production.

Fusion food is another example. Wherever you go in the world (yes, even in France) you now find top class restaurants that specialise in fusion food, i.e. a clever mix between western and eastern food. Fashion is another example where the influence of the taste in merging countries has been dramatic: black as a colour of fashion, even for celebrations (and not as a colour of mourning) is brought to Europe from the East. And the fashionable slippers that became so successful in 2005 across the industrialised world are brought to us mainly from Brazil. Manila is still the undisputed capital of the use of short messaging systems and lots of new applications for SMS were first experimented there.

Lots of good ideas, great innovations (not necessarily technical breakthroughs) seem to brew in emerging countries and it does not take too much to see how one can apply these successfully in industrialised countries. Our colleagues Doz, Williamson and Santos already described how it can be one of the advantages of multinationals (or metanationals as they called them) to sense new ideas in different countries, bring them together and roll these combined ideas out in a very rapid way. But we will argue that this is not only an advantage for large multinationals. It can be a great opportunity for every company, the large one and the medium-sized or smaller one that has all the senses geared towards capturing these new ideas.

We produced more than 30 case studies and desk research files on companies in South and South East Asia (from India over Thailand, Malaysia, Singapore to the Philippines, Taiwan, China and Korea), many of them on smaller companies. And we saw these great ideas. But we learned more. We did discover that innovators in these countries applied similar tricks, tools and methods as those applied by innovators elsewhere. But the local circumstances gave the innovation process a different twist. And the innovators had to be creative to come up with some different approaches. There again companies from industrialised countries can learn about how to locate part of their innovation value chain in the emerging countries and how to collaborate with local companies in order to speed up the global innovation process. The lessons from these innovators who work in more difficult circumstances can be an inspiration to innovators from the industrialised countries.

A flavour of our case studies and company files

What were these case studies about? Some of them were in fairly traditional industries, e.g. Aapico in Thailand that makes jigs for the automobile industry, Patkol in Thailand that produces ice making machines or Lapid Foods which is a small chain of upmarket restaurants for chicharons, a local snack in the Philippines. Others had taken a traditional concept and transformed it completely. Examples of these are the National Library Board in Singapore that has transformed itself from a somewhat sleepy national library into a cool and vibrant information provider, or Banyan Tree Resorts and Hotels, a Singapore headquartered chain of upmarket resorts that have completely repositioned what a holiday resort can be about. Others have taken advantage of new technologies to develop new local applications such as Biogen in India, one of the most successful bio-engineering ventures in India, or companies like Neowiz in Korea or Smart Telecommunications in the Philippines who rode on the development of mobile

telecommunications to offer distinct services. And finally there were companies like Netizen Funds in Korea or N.I.I.T. in India that developed from scratch new concepts. While some look more exciting than others, all of them have been successful through innovation. Success will not be guaranteed to them for ever, but their examples may teach us different elements about how to innovate in an emerging country.

Let's describe to you some of these companies in more details. Banyan Tree Resorts and Hotels (BTRH) is recognised in Asia to be a highly successful chain of resorts and has been able to build in a very short period of time a strong Asian brand. It has redefined the concept of what a resort is and has expressed this under the slogan: 'a sanctuary for the senses'. The emphasis is less on sports and common leisure activities as in a traditional resort, but much more on privacy, a feeling of well being. It describes itself as a luxury resort rooted in Asian tradition and with a strong sensitivity to the environment. Realising that they were selling not only a few nights in a resort, but a real life style concept they have translated this life style in different brands, covering merchandising, spa's and boutique hotels. BTRH has proved that it is possible to innovate in what is one of the oldest industries in the world. They rendered the concept credible by having a very specific design of the resort, putting more emphasis on the private space than on the common space, and using no wood in order to remain environmentally friendly. They invest heavily in the training of their employees, spread the brand through word of mouth and editorial advertising, leave sufficient local initiative to innovate as long as the innovation remains within the constraints of the brand, etc. It all sounds quite simple and none of it is a real innovation in itself. But the addition of a high number of small adaptations led to a totally different concept that has taken the market very rapidly.

Neowiz is a fun application in the mobile phone sector. This Korean company sold avatars, i.e. little pictures of puppets that you can receive via your mobile phone. Selling one avatar is not very interesting, but why not selling additional clothes, sports equipment, pets, that can be downloaded to make the avatar happy. Neowiz is not unique in Asia and there are other companies that succeeded in selling this 'Barbie of the mobile world'. But being a leader and creator of the digital Avatar industry, Neowiz was extremely popular in Korea. With each avatar sold at 4 to 5 US$, some kids started spending up to 200,000 Korean won (US$150) per month on these avatars. These kids, mostly teenagers, didn't own credit cards, so what they did is to call using fixed line phone to purchase the avatars, and the fee is reflected in the phone bill later. With such high avatar bills and little control in the beginning, parents were upset and complained to the government and threatened legal action against Neowiz. Indeed, the government had no pre-existing laws about that. But, Neowiz engaged with parents and the government, and offered some help in thinking about the issue. A cap of about US$30 per month was agreed, which the Korean government then used later to apply to all other companies that got in the same industry. Think of it: a business that enables you to sell in a sustainable way every day a few little applications. You only need a creative design office and word of mouth to make it work. Which company in Europe or America's Mid-West would not dream of such a money maker to fight off Chinese low cost manufacturing?

Let's take another example from Korea. A very creative form of involving customers in funding was Netizen Funds in Korea. Until a local movie called *Sheri* struck cords with the Koreans in the late 1990s, Koreans preferred Hollywood movies. By 1999, the interest in local films was on the increase with record screenings. Of course, with that the production and marketing costs shot up too. Intz.com, a marketing firm, was engaged to market a wrestling comedy called 'The Foul King'. Intz.com offered an opportunity to online users to invest in films directly. The intangible that such a model offered to film crazy fans, especially from the younger generation, was the thrill of helping make a film of their choice. So the promoters projected these funds as a means to 'get involved' rather than a tool to get handsome returns on their investment. The money raised by Intz.com was small (US$ 77, 500 or so) and was used to fund offline promotional activities & media events and investors got special invitations for such events. A vast majority of investors were young and invested less than US$100 per person. Such investors became unofficial ambassadors of the film, and provided some free word-of-mouth publicity. 'The Foul King' made a debut in early 2000, it was a runaway hit. The film earned more than any other (except two Hollywood films) that year and in the process earned a handsome 97% return for its investors.

Smart Telecommunications of the Philippines developed a new concept of money transfer by focusing on the needs of the poor with little spending power. It observed carefully the low-income segment of the Philippines and then tailored services that suit this segment. In May 2003, it introduced a service called e-Load, which is conceptually "airtime in sachets" and was one of the first of its kind in the world.

In the Asian market the sachet is very popular with shampoo users because it fits the cash flow of any ordinary low income consumer. When Smart Communications realized that its denomination of 300 pesos for prepaid cards for mobile phone services was very high for the low income segment in the Philippines, it had the insight that it may sell these prepaid cards like shampoo. More than 95% of mobile users in the Philippines use pre-paid service and their proportion may be even more in the low income segment. The high price of a card slowed the consumption of Smart's services. The comparison with shampoo in sachets gave the company a simple but powerful idea.

The company not only lowered the minimum denomination to 30 pesos, but also provided 'over the air' loading. In other words, one could get phone credits over the air that was distributed in the smallest 'sachets' of 30 pesos. All of a sudden, mobile phones became an instrument which could be used by the low income segment of the market. Smart has completely changed the behavior of the users and the distribution pattern of the phone credits. With over the air loading, Smart has moved out from just being in a cellular shop in a mall. It has about half a million agents and retailer all over the country which has a vast geographic area comprised of many islands. This created huge economic benefits through sales commission and employment. Smart sends the credits to its distributors and dealers, who have a special SIM card issued by Smart, over the air by sending simple SMS.

It all sounds quite simple and straightforward. But to offer such a service, Smart has built over the years a sophisticated and high reliability back-end infrastructure. But the real reason why Smart is able to offer e-Load is because of one big innovation – Smart Money – that it has created a few years earlier. Smart Money service allows mobile phone holders to make financial transaction on mobile phones. For instance, it enables customers to use their mobile phones to transfer cash from their bank accounts to a MasterCard cash card. The transfer could be made to one's own cash card or to somebody else's. From there it was a small step to the next innovation. In December 2003, Smart launched the "Pass and Load", as a step forward of E-Load. The service allowed users to pass pre-paid credits to one another over SMS. Irrespective of the amount passed around, Smart gains SMS fees when credits are passed by SMS. It increases the velocity of credits. Guess what it does to you when you receive an SMS and the money to reply. You have no choice any more but reacting! In 2004, Smart came up once again with another innovative service. This time the objective was to tap into the eight million Filipino workers who are spread around the world and send home a total of several billion dollars in savings annually. Usually the remittance by overseas Filipinos was done through bank and money transfer companies. Smart offered a new service through its remittance partners in 17 countries to send money home much cheaper and instantly. The remittance partners send an SMS to the Smart mobile phone recipient in the Philippines. Reception of the message and money can be confirmed by the recipient instantly, as it is reflected in his/her Smart Money electronic wallet account that can be checked on the mobile phone itself. If the recipient has a Smart Money card, the cash could be withdrawn instantly. Those who did not have the card could pick up cash immediately at any of Smart's partners such as McDonald's or 7-eleven shops anywhere in the Philippines. It goes without saying that the total cost for the sender was much lower than going through the normal banking system.

You may not see the point here immediately. You probably live in an environment where prepaid cards of 300 pesos are not your problem, and sending home some money can easily be done through your banking system. But with some creativity you can see enormous potential for this innovation in industrialized countries. First of all money transactions over the mobile phone network transform the mobile phone operators into banks (a role they may not want to play, but it is still a potential threat to retail banks). And what about the opportunity through this system to control better how much your kids spend on mobile communications (or force them to respond by sending them the exact amount with which to answer your questions). The applications may have been developed for a developing country, but with a creative twist they have enormous opportunities for applications in industrialized countries.

Let's take a last and perhaps more classical example from India. The last couple of years have seen the Indian information technology industry carve out a niche for itself and put places like Bangalore on the world map prominently. But away from much of the media glare and hype, there is something else that is brewing up in Bangalore off late. It is the emerging biotechnology industry in India that may well aim to be the country's new high-tech growth engine. The potential is immense due to the rich scientific talent and low-cost manufacturing base, but the constraints inherent in the infant domain are

obviously not few. There is one company, however, that has in the course of its nearly 25-year history, shown others the way – Biocon India, the country's biggest biotech company and most successful IPO in the recent years. This is as much a story of Biocon as it is of its chairperson and majority shareholder Ms. Kiran Mazumdar-Shaw widely acclaimed as the 'cover girl' of Indian biotech. She has led the company from its inception in 1978 based out of a rented garage to a thriving business. Birth of Biocon was a chance event. After returning home with a master's degree in brewing and malting technology from Melbourne University in the mid-1970s, Kiran discovered that brewing remained a male dominated bastion back in India. No Indian brewery was willing to put her in charge wondering how she would manage mostly male colleagues! In 1978 when she had accepted a job offer abroad and was ready to pack her bags, a small Irish company Biocon Biotechnology sounded her out to set up shop for them in India as they needed someone who understood fermentation technology. Operations began on a shoestring budget by extracting two enzymes - papain and isinglass – from papaya and catfish respectively. Biocon India, as the joint venture company was named, expanded continuously in the next 2-3 years with steady exports to the Irish company. Then in early 1980s, Biocon's success with manufacturing encouraged Kiran to recruit a team to seriously commence R&D. The R&D initiative got off to a good start in new areas of enzyme technology such as the making of specialized 'Koji enzymes' available at high cost only from Japan in the mid-1980s. Since then the company has constantly been able to convert pioneering R&D into profitable sales. By mid-1990s Biocon had developed world class solid-state surface and submerged fermentation capabilities. Incidentally, fermentation is the enabling technology for about US$20 billion worth of drugs and accounts for seven out of the twenty top-selling drugs worldwide today. Solid-state fermentation, a high yield process, is therefore highly useful in drug discovery. Biocon had focused on this technology from the very beginning. And it also had a desire to get into healthcare eventually. So, the company moved into biopharmaceuticals in 1995. In their own words, the company "…shifted gears significantly and moved from being a company focused on manufacturing enzymes by fermentation into being a Fermentation Company focusing on Enzymes and Pharmaceuticals production". They started looking for a suitable drug that could be made from fermentation and finally narrowed down on 'statins' as their focus for research. (Statins are a type of cholesterol-reducing drugs and form a US$ 18 billion market growing at 30% in the case of formulations and a US$ 3 billion market in generics).

Where are they going currently? A first area of current development is the blending of two strengths of Bangalore: information technology with bio-engineering. A layman's description of bioinformatics could be the use of computers to handle biological information. But a more classical definition as advanced by industry experts is the use of mathematical, statistical and computing methods for solving biological problems using DNA and amino acid sequences and related information. Biocon was drawn into the field by growing customer demand and also the chance to exploit some synergies, as the company is based in Bangalore – the hub of Asian IT. In early 2000, an informatics division started within Syngene, a division of Biogen, to develop substantial domain expertise in this emerging area.

A second area is that of clinical studies. India provides a unique opportunity in the form of the diversity and density of its patient population to perform clinical studies in order to identify 'biomarkers' – disease indications that could serve as early warnings. Syngene has grabbed this opportunity naturally afforded to them and set up a subsidiary Clinigene International to work in this area. The work requires adherence to high ethical standards and the underlying strategy is to create a clinical database in a way that is in synch with the data mining abilities of Syngene's informatics division. A third area is that of biologicals. These are compounds made from biological rather than chemical sources. And the company is betting heavily on them, even expecting them to outdo their pharma products in the next few years. For now, however, the business opportunities in chemistry outnumber those in molecular biology. But they are getting there. This year the company has aggressive plans for this division starting with human insulin that they are making jointly with another Indian biotech firm. Finally there is the area of bio-diversity. Under a recent in-house project that aims to tap the rich biodiversity of various ecosystems in the country, scientists aim to isolate, maintain and conserve rare indigenous fungi and bacteria. The project has graduated from screening fungi to derive enzymes to a more sophisticated level of bioprospecting for pharmaceutical molecules.

Getting access to this wealth of creative ideas requires you to go local

By this time you may have become convinced that it would be worthwhile to understand the needs of the middle class in emerging markets and to create new products and services that can cater to them and can be adapted to the markets in industrialized countries. But it is not by sitting on your chair in Amsterdam, Antwerp, St. Louis or Kanagawa that you will discover these needs. Market research in emerging countries is notoriously bad and even with the best internet searcher you will not be able to pick up the early signals about these innovations. You have to be there in order to understand the contextual knowledge and to tap into the messy non codified ideas that contain the germs of innovation. But that means you will have to become a member of the economic networks in these emerging countries, you will have to participate in the idea development. You will have to become an innovator in the emerging countries, or at least you will need to locate part of your innovation value chain there. That also means you need to understand how to innovate there. That's where you can learn from the best practice of some of the companies we described on how to innovate in the environment of an emerging country.

What are the hurdles to innovation and what do you do about it?

Let's first have a reality check. Innovating in Thailand, India or China is similar to innovating elsewhere. You need to listen to the customer, manage risks, provide leadership, be excellent in project management, protect your results so that you can get the rent of your innovation, etc. We have summarized this in the eight basic statements on innovation management (figure 1). But innovating in an emerging country requires a little more. We learned through the case research that these companies had to cope with five types of additional hurdles.

Figure 1: The Eight Basic lessons about Innovation Management

1. **Successful innovation is rooted in a good understanding of the market**
2. **There is no innovation without leadership**
3. **Innovation requires cold and rational risk management**
4. **Innovation is triggered by creativity**
5. **Innovation requires organizational integration**
6. **Success in innovation requires excellence in project management**
7. **Information is the crucial resource for effective innovation**
8. **The results of creative efforts need to be protected**

First of all their *organizations were not geared for innovation*. Their focus was often on catching up with competitors from the West, and cost competition was their main mantra. In many cases the very structure, the rather hierarchical organization and the concentration of decision making in the hands of a few family members made it difficult to innovate.

Secondly many of them suffered from *a lack of marketing information* or even contacts with lead markets. And when there were potentially large markets they had no tools or mechanisms to get information. Market research is at best bad and often simply unavailable. And in many emerging markets it is not 'bon ton' to be seen as an innovator with local products or as users of local brands.

Thirdly many of the emerging countries *lack the basic resources to innovate*: sophisticated risk capital, engineers for research and developments, or creative designers.

Fourthly we all know that intellectual property protection is a hot potato in many emerging countries. Even if there is legislation in place, it is often difficult to enforce it. And even if the government is willing to enforce it, the price difference between a protected and branded product and a generic copy is such that the customers vote with their feet. But that does not mean that the innovator does not have to look for *ways to protect himself*. Yet that is not going to happen with traditional patents, copyrights, etc. or at least not to the same extent.

Finally many innovators in emerging countries hesitate to innovate because they suffer from a sort of *underdog mentality*: can we really do it. Are we up to the challenge posed by the sophisticated innovators in industrialized economies?

If you want to stimulate innovation in emerging countries and learn from it you may want to learn how companies have overcome these hurdles. Let's take them one by one.

Adapting the organization

In order to become successful innovators the companies in our sample had to adapt their organisation. Often they had to start with a big change in mentality. They needed to throw the traditional wisdom about what made the competitiveness of their organization overboard. In fact they had to instil two beliefs that are different from the traditional management wisdom in emerging economies:

- Future competitiveness will come from emphasizing that knowledge, i.e. actionable information that we believe to be true, is the core resource of the organization
- Competing on low prices is a challenging and in the end a difficult to win battle; only higher value will command higher prices and sustainability.

Implementing these two basic ideas will however require a significant mental shift. The good news is that it can be done. This mental shift seems to be helped by at least three levers.

Company leaders need to make it clear that *innovation needs a focus on value creation through entrepreneurial risk taking*. Take for example Li&Fung, the Hong Kong based trader, or rather, as they describe themselves, a global supply chain manager. The company has completely redefined its business model and what they do is not trading any more. The whole business is created on a through understanding of their customer industries and their ability to manage all kinds of risks in a global supply chain. By this repositioning they have communicated clearly to their employees that Li&Fung is prepared to take risks and manage them by being aggressive entrepreneurs.

Secondly you must be able *to make the shift from creative improvisation to careful process management in design and development*. Let's take a more in-depth look at the case of what at first sight looks a less exciting company: Aapico of Thailand. Aapico Hitech Plc is a Thai auto-parts manufacturer that made quite some headlines in 2002 when it won over stiff competition to design, test and supply jigs – to hold car parts steady as they are welded – for the W211 Mercedes-Benz E-Class to be built locally in Thailand from 2003. Aapico supplied the jigs at 20 percent less than the cost from Daimler's usual supplier, making the contract a win-win situation for both the parties. Aapico designed, manufactured and tested all jigs of the new Mercedes-Benz E-class in South East Asia and also in other plants around the world. It was the first time that the entire jig for a Mercedes-Benz car had been made in Asia. And for Yeap Swee Chuan, the Malaysian engineer who founded Aapico 17 years earlier, it was a milestone towards

his ultimate goal of transforming Aapico into a total system supplier encompassing all levels of the production process.

When Aapico started making low-volume jigs for these big car manufacturers e.g. Daimler-Chrysler, it had very limited financial resources and engineering or design talent. But, as it's CEO, Yeap Swee Chuan, stated, it has been the relentless focus on consistency and details that has made Aapico successful with its clients. To operationalize such focus, Aapico developed internal processes. In fact, when there were opportunities to earn more money by taking more projects, Aapico chose to focus on few and not spread itself too thin to make sure that it didn't take short-cuts on its processes. As a consequence it has developed some of the best concept designs for low-volume tooling in the world. Its better design processes have enabled Aapico to race ahead of its competitors.

Building Aapico into such a process oriented learning-based organization was no easy task. It required crucial investments in training the workers in new technologies and modern management techniques. This was where the CEO encountered a road bump – recruiting qualified engineering graduates. It was not really a question of quantity. However, a string of flawed policies ensured that most graduates in Thailand were far removed from the necessary skills that the private sector required. Undeterred by these shortcomings, Yeap took things in his own hands and recruited an experienced engineer from Ford in order to set up an in-house jig-design and engineering facility. Then in 1991, Aapico became the first among its peers to introduce CAD/CAM technology and CNC machines. It is by constantly challenging itself that the company managed to ramp up its technical expertise without overextending its human or financial resources.

Thirdly you have *to see your firm as a bundle of capabilities that can be constantly recombined in order to respond better to the market, not as a portfolio of products*. For this age of flexibility, it is better if firms consider themselves to be bundles of capabilities instead of products. The difference between these two approaches is that the different permutation or combination of capabilities needed for the existing product(s) can be used to create new products and services. So, once the companies shift the frame of mind to capabilities, they can become a lot more flexible and empowered. The National Library Board of Singapore has taken the paradigm of capabilities to a different level. It has a business group whose objective is to package and sell the internal capabilities of the library to the corporate world. One of the most innovate things they have come up with, is to use the capabilities of reference librarians, who have special but under-utilized expertise. For corporations, the reference librarians now help to conduct brainstorming sessions. They then revert to the corporations with research on some of the short-listed ideas, providing a basis for solid discussion for managers in-charge in the corporations.

Innovation also requires creativity. This creativity is often not the strongest asset of a company from an emerging economy. Many of these companies are family run, and the family control is not always the best way to release creative energy. Creating an environment that enhances creative behaviour rests on the deployment of three levers. The first one is the creation of more cultural and cross-functional diversity within the

management team. For such a diversity to have an impact you must ensure that everything is done to create good communication. The second lever is to increase the motivation of your employees through a more professional approach of your management, incentives and the decentralisation of initiative throughout the organisation. The third lever is to apply an appropriate dose of stretch: enough to render people creative, not too much to stop all their initiative.

Get better marketing

Innovation without intimate customer knowledge is not possible. We know that emerging markets in Asia or elsewhere are not the most supportive for an innovator. Customers tend to be more conservative, markets are heterogeneous and market data is simply not available. The most sophisticated markets are often far away, both geographically and culturally. What can be done about it?

Sophisticated markets will remain an important source of learning. Some innovators will set up antennae to tap into these sources - and an enlightened company from the industrialised world can play an important role in this as a partner. But some companies in our sample have been able to set up their own antennae. There are several approaches possible, ranging from the creation of a wholly owned subsidiary, setting up an alliance or acquiring an overseas unit. Two examples from the fragrance and the white goods industry illustrate this. AmorePacific is a large cosmetics producer in Korea. The company had started its overseas expansion by exporting cheap make-up to women in developing countries. And it did a reasonably good job there. Along the same lines, AmorePacific first tried breaking into the French market in the early 1990s by exporting its skin-care line products. But its products, exported from Korea, were received poorly in France. The Koreans couldn't understand the French preferences and lacked brand power. The company's executives felt that the company ran into Gallic chauvinism as the French turned up their noses at cosmetics originating from a newly industrialized country.

The company realized its early mistakes. The chairman of the company was determined to get into the French market – the world's largest cosmetics market. After several unsuccessful attempts to acquire small French cosmetics firms, the company decided to set up a new perfume facility in France just outside of Paris. Fragrances are the cosmetic products to which consumers show the least loyalty. Therefore perfume was the product chosen to launch the cosmetics line. AmorePacific hoped this way to increase the probability of its success. The former international marketing director of Parfums Christian Dior was brought in to lead the European operations. The company hired French fragrance experts to formulate the perfume, and a French artist to create a charming bottle which was conspicuously stamped "Made in France." The perfume was brought to the market by French marketing and sales people.

In a complete reversal of the past attempts to push a Korean brand in the French market, it was decided that a purely French brand should be created. A famous female French

designer – Lolita Lempicka – was signed under exclusive deal to use her name on a new line of fragrances and other beauty products. Even today very few customers know that the perfume "Lolita Lempicka" has a Korean company behind it.

Haier of China has adopted the same strategy of going to more sophisticated markets in the US and Europe. This strategy is unlike that of many other Chinese companies that usually target easier markets of South East Asia. Since 1990, Haier has been investing in building its brand in the US market. Unlike other companies, from the beginning, its stated objective of going to the US was to build a brand and not just to earn foreign exchange by luring customers with low prices. While low prices is something that Haier was able to offer due to way its operations run, it competed on its in-depth understanding of customer needs and the speed to market. On this basis it has built a market share of more than 50% in compact refrigerators and wine coolers in the US. The compact refrigerators, targeted towards college students who live in studios or small apartments, are so popular because they address the customer needs – the refrigerator has two wooden flaps on the side that can be folded out to make a computer table and folded back when not needed. It must be noted that the Haier goods for the US markets were designed and produced locally in its own facilities in the US even though this meant a higher cost. The objective was to serve the market with the goods that addresses the local needs. Its strategy was to expand from niche consumer markets to bigger markets by continuing to learn from the market and introducing innovative products.

But there is another strategy possible. One can also tap in the vast potential of emerging markets. They may not have the same spending power but they do have the numbers on their side. The low income markets tend also to be large. Smart Telecommunications of the Philippines, which we described earlier, is a good example of this.

One of the challenges of emerging markets is that it may be tough to find early adopters and this for cultural or other reasons. But the example of iRiver in Korea provides a good insight in how you can learn from your customers in very creative ways. iRiver of South Korea is one of the world's most successful companies in the design and production of MP3 players. It has created an uncensored bulletin board on its website where a customer can express his or her opinion, criticism, praise or suggestion. To keep it fair and transparent, the online bulletin board for customers is unmoderated. Keeping it open in this way assures the customers that iRiver takes them seriously.

Customers can request for certain features, and iRiver, whenever possible, includes those features in the nearest possible upgrades of its products. To keep users engaged, iRiver offers more than 4 times a year free upgrades of the software for its MP3 player. This is very different from what we see for other providers of MP3 players that often deliver a product that cannot be upgraded. Each of these upgrades is based on active suggestion and participation of iRiver customers. This way, iRiver which now has customers not only in Korea but around the world actively taps into the brain of most sophisticated customers. And guess what? The efforts by iRiver by are perceived to be sincere by its customers.

On the user's forum on the same website, the customers have got so involved that they reply to the questions of other customers. The bulletin board has become a knowledge repository and people share experiences. In fact, now, iRiver has opened an iLounge in Seoul to bring customers together and create a sense of community amongst them and closer relationship with itself. Heavy users of MP3 players enjoy meeting each other and exchange experience and music with each other. iRiver has definitely created an upward spiral of customer involvement.

Compensating for a lack of resources

Innovation requires resources. Without the appropriate human and financial resources creative entrepreneurs will not be able to reach their ambition. The momentum of innovators from emerging countries may well be stopped if they do not have the quantity and quality of technical infrastructure, engineering, design and management skills, creative employees and risk taking capital.

The availability of some of these resources does depend on the initiative of governments. We hope that some government leaders will have the strategy to put in place the systems to develop these resources. But managers can also take some action to overcome the temporary shortages they will be confronted with.

Engineering and design skills can be developed inside the organization, and managerial skills can be kept at a high level by maintaining good networks with your peers in industrialized countries. Financial needs can be covered by finding alternative sources inside or outside Asia and perhaps also by reducing the needs for financing through creative partnerships with suppliers, customers or users.

One of the areas where the biggest gap with companies in industrialized countries exists is that of design skills. Designing is the ability to envisage a complete product or service and create an architecture that the engineers can use. Aside from the electronics sector where some Asian companies have a lead and have successfully begun to design mid and high-end products, the design capabilities in some of the companies we studied and representing important sectors such as apparels, automotive or chemical engineering are largely underdeveloped. Even in software development, Indian or Chinese companies are not yet known for their design skills but still mainly for their production (i.e. relatively low-end programming) skills.

To a large extent, lack of design capabilities is a consequence of the fact that these companies have been essentially Original Equipment Manufacturers (OEM), supplying to big principals. In most of these relationships the design was not their responsibility. But they are forced to move up the value chain. They can do this either by designing for the branded goods specialists in the industrialized world or by introducing their own innovative goods and services in the market directly. Either way, the *design* skills are critical for them. Today, in a large number of industries, it is the *design* skills that allow firms to create and capture significant value and margins. It is not surprising, for instance,

that Nike has chosen not to do any manufacturing of its own for a long time and focuses on *design*.

The challenge is how to *develop* these design capabilities in emerging countries. This has often been the most difficult thing to learn in the process of going up the value chain. The Indian IT industry offers interesting insights into the design issue. The Indian IT industry is strongly focused on export of IT services instead of products – services represent more than 75 times of what is earned by Indian IT companies for their products in 2003. This bias in services is created by uniformity of available skills, aggravated by a shortage in skills such as programming design and specification in engineering, which are required to a lesser degree in services business. Such design skills are absent due to distance from the sophisticated markets, namely the US, for IT products. This makes funding and further learning opportunities for design as also quite limited.

Having been OEM players for certain components, most Asian companies lack the complete picture of products and the complexities involved. That is difficult to master! Illustrating this point, Takahiro Fujimoto, a prominent professor from Tokyo University, argued recently that Japanese manufacturers' real strength is in those "products that require many components to be designed in careful detail and mutually adjusted for optimal performance"[i].

What do you do about this? Realizing the deficiency of design skills in South Korea, iRiver knew it had to do something different. Soon after iRiver entered the MP3 player market, it was clear, that the market would be flooded with competing products. The CEO perceived that even though iRiver's products were technically superior, iRiver needed to establish an emotional link with the customers. Only a lifestyle approach would ensure a long-term success in the market. It was clear to him that iRiver needed a good designer so that the product could be aesthetically appealing. He contacted Inno, a Silicon Valley based leading designer for consumer electronics goods that advises a large number of companies. iRiver told Inno that the company had little cash but bright future which Inno could appraise being in contact with all leading consumer electronics goods. They signed an unusual agreement that saved iRiver the scarce cash and offered Inno a piece of iRiver's future. With its ambition and willingness to ask for unusual agreements, iRiver could tap on the one of the best design skills in the world. Today, Inno even advises iRiver proactively on new designs. Each iRiver MP3 player distinctly carries a label 'designed by Inno'. As iRiver goes to more countries, it realizes that its will need to design its products a little differently for different parts of the world.

Aapico, on the other hand, has invested in learning and honing the design skills. In 1991, Aapico became the first among its peers to introduce CAD/CAM technology and CNC machines. Aapico learned designing. Until mid 1990s, Aapico made jigs from the German, Australian and American drawings. It felt constrained and decided to have its own designs. The CEO recruited an experienced and well-traveled Australian designer and engineer from Ford in order to set up an in-house jig-design and engineering facility. The designer loved Thailand very much and loved to teach. He has trained a group of people to be designers within Aapico who have been retained by Aapico through various

incentives and fair treatment. Every employee of Aapico has been a shareholder of Aapico since a time when offering a share to employees was still very rare. Today, the company claims that it has probably the best concept design for low-volume tooling in the world. On price, quality and design it can compete with anyone.

Aapico's success has not gone unnoticed in the auto-parts business. The company diversified into consulting when other firms expressed interest in learning from them. Along with DaimlerChrysler's Lean Manufacturing Center (LMC), Aapico advised the Indian auto-giant Telco (part of the Tata group) on jigs design, for instance.[ii] In the process, it continues to learn from the process and DaimlerChrysler.

When we talk about design, it does not have to be associated with technology intensive industries. Products and services could be designed using the *indigenous* knowledge and skills. The example of the Martha Tilaar Group from Indonesia offers some insights. Its ambition is to be a leading cosmetic company with Eastern & natural nuance utilizing modern technology and research & development. And it has been quite successful at it. The company was founded on the belief of the founder Martha Tilaar in the value of traditional Indonesia knowledge and the jamu herbal mix. It embraced the legacy of Indonesian ancient beauty philosophy known as *Rupasampat Wahyabyantara*, which means "Beauty is an expression of a harmony between the outer and the inner". The outcome of this philosophy is the Sari Ayu cosmetic range by the company. Following the initial success, the company created Biokos Total Age Care, Belia, Dewi Sri Spa, etc which combines Indonesian natural ingredients with modern research and production techniques and strict quality control, receiving for instance ISO quality approvals. Over 33 years, the small initial venture has grown into a group of companies known as the Martha Tilaar Group, employing over 6,000 people and producing cosmetics, herbal medicines, food supplements and the operating several beauty schools, salons and spas in Indonesia. The Group's activities are based on the foundation of indigenous knowledge, and its market leadership is a result of its own design efforts.

Similarly Eu Yan Sang of Singapore is a leader in oriental medicine in South East Asia. Oriental medicine is grounded in indigenous and traditional knowledge over thousands of years, and EYS has developed capabilities to harness that knowledge. Not only that, the company taps the latest scientific knowledge and focuses on quality. For instance, its manufacturing plants have ISO certifications; it partners with Western natural products companies through equity stakes, works with a Hong Kong University for the scientific research on Chinese medicines, and co-develops Chinese herbal product range for spas. Today, the company is in the driving seat as a *designer* by setting up consultative clinics in Australia, and is promoting fusion treatments combining Western and Oriental medicinal treatments.

Till now we focused on design of products, be it high or low tech. Design also exists in services. An example of design in services is the case of Banyan Tree Resorts and Hotels. This chain of holiday resorts has developed a very specific style of resort, labelled not as a resort, but as a 'sanctuary for the senses'. Their commitment to relaxation, respect for the natural environment, etc. have given them a very specific style and design.

Clever Profit Management

Once you have mobilised the resources to innovate and you know what your customer needs, you also need to invest in profit management. Getting to good returns for the entrepreneur requires careful profit management. In emerging countries and in particular in Asia the profits for the entrepreneurs often disappear because of copying. While we like to make a plea to governments all over the world to invest more in intellectual property protection and its enforcement, we also realise that there are many reasons why this will take quite some time to be implemented. Therefore companies have to engage in strategies to cope with imitation.

Pursuing the enforcement of one's legal rights can be one way. But this often takes long and costly efforts and it is not clear whether the owner of the IPR can really get a good return out of it. Perhaps the approach should be to try to obtain enforcement of legal rights, but combine this with a more managerial approach. The suggestion that we gave here were: (a) learn from what your imitators do and (b) consider that all imitation is legal and that IPR is a windfall profit and that thus you have to defend yourself with other competitive means. Indeed, there are examples of companies in Asia that have pursued these two approaches.

Creative Technologies of Singapore realized that the illegal imitations of its famous soundblaster cards were available cheaply and sold like hot cakes in China's booming PC market. The company took an unconventional step of using its facilities to manufacture unbranded cards and selling them in the Chinese market to get the slice of the market that it would otherwise never have got with its high priced branded product. Thus, it did not engage in a large scale legal fight with the small vendors all across China, which would have been totally unproductive, but it gained some more market share. They learned from the copiers and fought back.

But you also can protect yourself. One way is through the company's back office processes. The CEO of Smart Communications in the Philippines argues that one of the key reasons that Smart was highly profitable despite heavy competition and copying of its business model was because of its sophisticated back-end infrastructure. 98% of its approximately 12 million customers were subscribers of prepaid service in the Philippines. When one made a call using the credits on his pre-paid card, Smart deducted the appropriate amount from the card. Since credit card penetration was very low in the Philippines, pre-paid cards were not backed by credit cards. Thus, when Smart's backroom deducted the balance from what was left as credit on the prepaid card, it had to do so real time. Otherwise it would have a lot of losses if one could make calls for few minutes even when the pre-paid credit is exhausted. Developing and maintaining an infrastructure that can react in real time was something that was not a visible challenge. But, that is where Smart invested and built its competitive advantage.

Brands can be another way of protecting oneself. Banyan Tree Hotels & Resorts offer an emotional appeal in another way, as reflected in its tagline 'Sanctuary for Senses'. "We

wanted to create something that would conjure up certain images--romance, rejuvenation, intimacy--in people's minds," said it's CEO Ho Kwon Ping.[iii] "Everything we've done has tried to reinforce that." The concept is rather unique in Asia and had its own risks, but was built with a clearly articulated objective of creating a unique experience. The soft approach distinguishes the resorts from its competitors, allows them to charge a premium and connects with customers on an emotional level.[iv] The company raised prices even during the Asian financial crisis of the end of the nineties. The company that started as a luxury resort chain with a very Asian touch spun off popular features of its resorts - spas and retail shops - to leverage the brand. The spas boast tropical serenity and lately have been put in as branded spa outlets in many countries across Asia and Africa. And 'draw on local inspiration to blend seamlessly with the natural environment'. With delicate care for the customers, the company regularly wins international accolades and is considered to be special and innovative by its customers. The special experience has created an emotional appeal and loyalty that other such resorts may find hard to replicate and steal.

Speed can be a third way of protecting oneself. An example of this is the story of Neowiz. At any given moment, it is experimenting with several new ideas. Since its wildly successful Avatar business idea came out of rapid prototyping and testing with customers over the internet, the organization is always willing to allocate small funds needed to try out new services. Having tried and failed counts more for an employee's success in the company compared to not trying at all. At the same time, Neowiz is strict in the criteria of not letting unsuccessful experiments linger on. Even when it entered late into the web card games business, rapid prototyping and testing with the customers allowed it to create experiences for the customers that were more exciting than that offered by the creators of the industry segment. Now, its main source of revenue is such games and not the avatars any more.

Get over the underdog mentality

In our research we discovered somewhat to our surprise that a group of Asian companies find it difficult to innovate because of a perception, a sentiment really, that they did not have enough capabilities to innovate. This sentiment is the consequence of many subjective and objective factors, among them the negative perception of Asian products and services in the eyes of both Asian and other customers, the absence of influence in standard setting and the critical if not negative image about Asian firms that often is projected by the international media

Many of these factors will not disappear easily, and require collective efforts by firms and governments. Images do not change that quickly and only a long term effort will lead to a real change. But firms cannot wait till that change has happened and they need to take action now to break out of the vicious cycle of the underdog mentality. Recognising it is a first step. Doing something about it is the second one.

What we observed in the successfully innovating companies is that it is the senior managers and CEOs who have embarked on an educational exercise. Whether it is Yeap Swee Chuan from Aapico who invites senior managers from European firms to come and

see for themselves how good the factories are or Kiran Mazumadar from Biogen who acts as a spokesperson for an industry, each time you see that the top management sees it as its responsibility to be personally involved in overcoming the negative perception that may exist about the company's Asian image. That is perhaps the most important lesson of all our examples: it is top management's responsibility to break the negative impact of the underdog mentality.

If the CEO or another senior officer can start to take the role of a spokesman of the rising industry or talk about something that is of general importance to business community, he/she attracts attention from the journalists who again would look into the company and have a more positive frame of mind. Kiran Mazumadar of Biocon in India has done that. Although until few years ago, she ran a relatively small biotech company. She took every opportunity to be on stage and be spokeswoman for the industry, eclipsing the CEOs of larger corporations. The journalists started taking note of her company and the industry even at a time when the focus of India was IT industry. Similarly, Napoleon L. Nazareno of Smart Communications has put his Filipino company on a global technology map. After having built very innovative mobile systems and services in the Philippines and that too without 3G, he has gone on international speaking circuit to surprise and attract the world about the innovations in the field in the Philippines. He is a regular speaker in the top industry conferences and Manila is a well-recognized SMS capital of the world.

What is in it for you?

Innovation is not yet disappearing from industrialised countries. But what we argued here is that in emerging countries there is a wealth of ideas and companies that are experimenting with innovations which are adapted to the needs of a rapidly growing group of hundreds of millions new middle class consumers. This offers a great opportunity for companies from North America, Europe and Japan both in terms of market and in terms of a source of ideas for new applications in the traditional industrialised markets. To be part of this exciting growth one needs to be a partner in it. Knowledge about these innovations will not be offered to us on a golden plate. Companies from industrialised countries will need to extend part of their innovation value chain into emerging countries and thus learn how to innovate in that environment. The good news is that the traditional lessons of innovation management apply there. But there are some constraints which have to do with the distance or the lack of information about markets, the lack of specialised resources, the hurdle posed by the traditional hierarchies, a certain underdog mentality and the difficulty of protecting intellectual property. But all these difficulties can be overcome and the inspiring examples of some of the local players can help us to understand how to innovate in emerging countries. The many examples in this paper should inspire you to take the leap and extend your innovation value chain on a global scale.

[i] Article by Takahiro Fujimoto, a professor at Tokyo University, quoted in *(Still) made in Japan*, Apr 7th 2004, The Economist. The original paper was published in Japanese in *Bungei Shunju* in November 2003, translated in *Japan Echo* in February 2004.

[ii] Reported in "Rising Star", AutoAsia, October 2002

[iii] Putting Down Roots - *Banyan Tree built a name for itself from scratch*, By Joanna Slater Issue cover-dated May 25, 2000, FEER

[iv] Putting Down Roots - *Banyan Tree built a name for itself from scratch*, By Joanna Slater Issue cover-dated May 25, 2000, FEER